

# CITY OF FORT WORTH, TEXAS TRANSPORTATION IMPACT FEE STUDY



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Prepared for the City of Fort Worth

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## EXECUTIVE SUMMARY

### **Introduction**

Impact Fees are a mechanism for funding the public infrastructure necessitated by new development. Across the country, they are used to fund police and fire facilities, parks, schools, roads and utilities. In Texas, the legislature has allowed their use for water, wastewater, roadway and drainage facilities. Since 1989, they have been used to fund public water and wastewater improvements in the City of Fort Worth. Since 2008, they have been used to fund transportation infrastructure. In the most basic terms, impact fees are meant to recover the incremental cost of the impact of each new unit of development creating new infrastructure needs. In the case of Transportation Impact Fees, the infrastructure need is the increased capacity on arterial and collector roadways that serve the overall transportation system. The purpose of the 2017 Transportation Impact Fee Study is to identify the fee per unit of new development necessary to fund these improvements in accordance with the enabling legislation, Chapter 395 of the Texas Local Government Code.

### **Impact Fee Basics**

Transportation Impact Fees are determined by several key variables, each described below in greater detail.

### ***Impact Fee Study***

The primary purpose of the 2017 Transportation Impact Fee Study is to determine the maximum impact fee per unit of new development chargeable as allowed by the state law. This determination is not a recommendation; the actual fee amount ultimately assessed is at the discretion of the Fort Worth City Council, so long as it does not exceed the maximum assessable allowed by law. The study looks at a period of 10 years to project new growth and corresponding capacity needs, as required by state law. The study and corresponding maximum fees must be restudied at least every five years. However, the study can be updated at any time to accommodate significant changes in any of the key variables of the impact fee equation. The 2017 Transportation Impact Fee Study was initiated prior to the five-year requirement due to the recent adoption of an updated Master Thoroughfare Plan.

### ***Service Areas***

A Service Area is a geographic area within which a unique maximum impact fee is determined. All fees collected within the Service Area must be spent on eligible improvements within the same Service Area. For Transportation Impact Fees, the Service Area may not exceed 6 miles. In Fort Worth, this restriction necessitated the creation of 28 separate Service Areas. A map of the Service Areas can be found on Page 14. However, no impact fees may be collected in seven (7) of these Service Areas because no capacity related transportation improvement projects have been designated. Previously, there were eight (8) no fee service areas. With the 2017 Transportation Impact Fee Update Service Area V now has a calculated fee, and Service Area PI (Panther Island) was created as a new service area.

In defining the Service Area boundaries, the project team considered the corporate boundary, required size limit, adjacent land uses, and topography. Since each Service Area has a unique maximum impact fee, the per-unit maximum fee for an identical land use will vary from one Service Area to the next. For this reason, the team avoided drawing a Service Area boundary through uniform land uses where possible. The service areas in the 2017 Transportation Impact Fee Study are consistent with those in the previous Transportation Impact Fee Study with slight modifications to include annexations since the previous study.

### ***Land Use Assumptions***

The Impact Fee determination is required to be based on the projected growth and corresponding capacity needs in a 10-year window. This study considers the years 2017-2027. Acknowledging that the parameters of the study (the corporate boundaries, Master Thoroughfare Plan, Comprehensive Plan, zoning maps, platting history, etc.) are changing constantly, this study is based on conditions as they were on July 11, 2017.

One of the key elements in the determination of the impact fee is the amount of new development anticipated over 10 years. In order to arrive at a reasonable projection of growth, staff compiled a team of subject-matter experts from the Transportation and Public Works and Planning and Development departments to evaluate each of the twenty fee-charging service areas individually. A map of each service area was overlaid with an aerial photograph, preliminary and final plats, and

the Future Land Use Plan defined in the Comprehensive Plan. The team that studied these maps was comprised of the staff that administers zoning, platting and pre-development applications; Master Thoroughfare Plan alignments; construction plan reviews; and planning efforts. Vacant parcels were discussed and projected to either develop by 2027 or to remain undeveloped at that time, based on zoning, platting and pre-development history, utility availability, and any additional information regarding development potential or stated intentions. It was assumed that vacant parcels without recorded zoning or platting information would develop according to the land use specified in the Comprehensive Plan.

Finally, tables were created to compare existing residential and employment data to the ultimate residential and employment figures anticipated in the Comprehensive Plan. The effort described above generated a percentage of the ultimate residential and employment figures anticipated within each service area by the year 2027. These projections can be found in the Residential and Employment Projections tables beginning on Pages 16-18. It is worth noting that the percentage of residential and employment expected by 2027 does not directly correlate to the percentage of the planned arterial network that will be required by that date. The Master Thoroughfare Plan, which defines the future arterial network, is not based solely on future growth projections; therefore, the percentage of the planned arterial network needed to accommodate future growth may exceed 100% of the total available thoroughfare network in some service areas.

### ***Transportation Impact Fee Transportation Improvement Plan (TIP)***

The Transportation Improvements Plan is distinct and separate from the City's traditional Capital Improvements Plan (CIP). The TIP is simply the list of projects eligible for funding through impact fees. Only those capacity improvements included in the City's adopted Master Thoroughfare Plan are included in the TIP. Capacity improvements may include the addition of lanes, intersection improvements, or the extension of a new road. Resurfacing or other maintenance activities do not qualify as capacity improvements under impact fee law in Texas.

The cost of the TIP is one of the fundamental factors in the calculation of the per-unit maximum impact fee. The TIP's cost was calculated through systematic evaluation of each eligible project. The project team visited each project site to determine the project scope, the presence of any special conditions (such as the need for significant drainage improvements or railroad crossings) and whether

various additional construction costs were applicable (such as construction phase traffic control). In determining project limits, the team identified roadway segments with uniform need. For example, Beach Street is separated into several projects in the TIP. From the SH 170 Eastbound Frontage Road to 2,045' south of the SH 170 Eastbound Frontage Road Beach Street is a new project; from 410' north of Saratoga Downs to Timberland Boulevard Beach Street is a median lanes project; and from Timberland Boulevard to Golden Triangle Boulevard Beach Street is a previously completed project still eligible for impact fees. The team utilized a standard methodology for estimating construction costs once the project scope was defined. Referencing multiple arterial projects within Fort Worth and the immediate vicinity, uniform costs were determined for the major items of work, additional construction items, and project delivery costs. Section III provides a listing of the 10-Year Transportation Improvements Plan by service area in Tables 2.A – 2.Z and maps of the TIP by service area in Exhibits 3.A – 3.Z. Finally, detailed cost projections by project can be found in Appendix A. It should be noted that these cost projections are based on conceptual level planning, and are subject to refinement upon final design. Also, note that on the detailed cost projections, where applicable, funds previously collected by the City for future improvements have been deducted from a project's eligible total.

Only those projects listed in the TIP are eligible to utilize impact fee funds. In order to optimize future flexibility, all capacity improvements included in the Master Thoroughfare Plan are included in the TIP and will be eligible to utilize impact fee funds. The recently approved Master Thoroughfare Plan identified several facilities that were downgraded from their previous functional classification. These identified downgraded facilities were removed from the TIP project list in the 2017 Transportation Impact Fee Study.

Only the costs associated with providing the additional capacity necessitated by 10 years of growth can be used to calculate the maximum impact fee. In order to calculate the maximum impact fee, the total cost of the TIP at build-out was reduced to account for (1) the portion of new capacity that will address existing needs, and (2) the portion of new capacity that will not be necessitated until beyond the 10-year growth window. A ratio that compares 10 years' demand for capacity to the net supply of capacity (total new capacity in the TIP minus existing needs) can be calculated. That ratio, which may not exceed 100%, is then applied to the cost of the net capacity supplied. The result is a determination of the costs attributable to the next 10 years' growth, which is then used to

calculate the maximum impact fee in accordance with state law. The result is known as the recoverable cost of the TIP.

### ***Impact Fee Calculation***

In simplest terms, the maximum impact fee allowable by law is calculated by dividing the recoverable cost of the TIP by the number of new service units of development. In accordance with state law, both the cost of the TIP and the number of new service units of development used in the equation are based on the growth and corresponding capacity needs projected to occur within a 10-year window. This calculation is performed for each service area individually; each service area has a stand-alone TIP and 10-year growth projection.

In practice, there are many factors that complicate this calculation. The maximum impact fee allowable by law for each service area is calculated in Table 7. A detailed discussion of the calculation precedes Table 7, found on Pages 102-107. Notice that Service Areas H, I, J, K, P, Q, and R are not included in Table 7. These Service Areas are “No Fee” areas, where no impact fee will be assessed for new development as consistent with the previous Transportation Impact Fee Study.

### ***Collection and Use of Transportation Impact Fees***

Transportation Impact fees are assessed when a final plat is recorded. The assessment defines the impact of each unit at the time of platting, according to land use, and may not exceed the maximum impact fee allowed by law. Transportation Impact Fees are collected when a building permit is issued. Therefore, funds are not collected until development-impacts are introduced to the transportation system. Funds collected within a service area can be used only within the same service area. Finally, fees must be utilized within 10 years of collection, or must be refunded with interest.

### ***Adoption Process***

Chapter 395 of the Texas Local Government Code stipulates a specific process for the adoption of Transportation Impact Fees. An Advisory Committee is required to review the Land Use Assumptions and TIP used in calculating the maximum fee, and to provide the Committee’s findings for consideration by the City Council. This Advisory Committee also reviews the Transportation Impact Fee ordinance and provides its findings to the City Council. The composition of the Advisory

Committee is required to adequately represent the building and development communities. The City Council then conducts a public hearing on the Land Use Assumptions, TIP and Impact Fee Ordinance. Since Transportation Impact Fees are already in place in the City Fort Worth, the 2017 Transportation Impact Fee Study only requires one public hearing. However, two public hearings may be held to assist in further educating the public and allowing time for review.

Following policy adoption, the Advisory Committee is tasked with advising the City Council of the need to update the Land Use Assumptions or the TIP at any time within five years of adoption. Finally, the Advisory Committee oversees the proper administration of the Impact Fee, once in place, and advises the Council as necessary.

#### 2017 Transportation Impact Fee Study Results

Below is the listing of the 2017 Transportation Impact Fee Study's Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile):

<b>Service Area</b>	<b>Maximum Fee Per Service Unit (per Vehicle-Mile)</b>
A	\$2,025
AA	\$205
B	\$3,316
C	\$1,144
D	\$463
E	\$3,449
F	\$675
G	\$1,799
L	\$441
M	\$3,164
N	\$845
O	\$3,560
PI	\$492
S	\$2,984
T	\$1,826
U	\$3,457
V	\$3,269
W	\$1,356
X	\$3,806
Y	\$2,348
Z	\$3,706

## I. INTRODUCTION

Chapter 395 of the Texas Local Government Code describes the procedure political subdivisions must follow in order to create and implement impact fees. Senate Bill 243 (SB 243) amended Chapter 395 in 2001 to define an Impact Fee as “a charge or assessment imposed by a political subdivision against new development in order to generate revenue for funding or recouping the costs of capital improvements or facility expansions necessitated by and attributable to the new development.”

Chapter 395 mandates that impact fees be studied at least every five (5) years. Accordingly, the City of Fort Worth has developed its Land Use Assumptions and TIP with which to implement Transportation Impact Fees. The City has retained Kimley-Horn and Associates, Inc. to provide professional transportation engineering services for the 2017 Transportation Impact Fee Study. This report includes details of the Transportation Impact Fee calculation methodology in accordance with Chapter 395, the applicable Land Use Assumptions, development of the Transportation Impact Fee TIP, and the Land Use Equivalency Table.

This report references two of the basic inputs to the Transportation Impact Fee:

- 1) **Land Use Assumptions** (Pg. 9)
- 2) **Transportation Impact Fee Transportation Improvements Plan (TIP)** (Pg. 19)

Information from these Land Use Assumptions and Transportation Impact Fee TIP is used extensively throughout the remainder of the report.

There is a detailed discussion of the methodology for the computation of impact fees. This discussion is broken into three components:

- 1) **Methodology for Transportation Impact Fees** (Pg. 63)
- 2) **Transportation Impact Fee Calculation** (Pg. 96)
- 3) **Plan for Financing and the Ad Valorem Tax Credit** (Pg. 101)

The components of the **Computation Method for Transportation Impact Fee** include development of:

- Service Areas (Pg. 63)
- Service Units (Pg. 63)
- Cost Per Service Unit (Pg. 65)
- Transportation Impact Fee TIP Costing Methodology (Pg. 65)
- Summary of Transportation Impact Fee TIP Costs (Pg. 69)
- Service Unit Calculation (Pg. 76)

The Transportation Impact Fee is then calculated as:

- Maximum Assessable Impact Fee Per Service Unit (Pg. 99)
- Service Unit Demand Per Unit of Development (Pg. 107)

The report also includes a section concerning the **Plan for Financing and the Ad Valorem Tax Credit**. This involves the calculation of the applicable credit required by law to offset the City's use of ad valorem taxes to help fund the Transportation Impact Fee TIP. This plan, prepared by NewGen Strategies, and upon which we relied, details the maximum assessable impact fee per service unit the City of Fort Worth may apply under Chapter 395 of the Texas Local Government Code.



## II. LAND USE ASSUMPTIONS

### A. Purpose and Overview

In order to assess an impact fee, Land Use Assumptions must be developed to provide the basis for residential and employment growth projections within a political subdivision. As defined by Chapter 395 of the Texas Local Government Code, these assumptions include a description of changes in land uses, densities, and development in the service area. The land use assumptions are then used in determining the need and timing of transportation improvements to serve future development.

In accordance with Chapter 395, information from the following sources was compiled to complete the land use assumptions:

- City of Fort Worth 2013 Transportation Impact Fee Study
- City of Fort Worth Comprehensive Plan
- Tarrant County Appraisal District (TAD)
- Denton County Appraisal District (DCAD)
- Parker County Appraisal District (PCAD)
- North Central Texas Council of Governments (NCTCOG)
- City of Fort Worth staff

The Land Use Assumptions include the following components:

- **Land Use Assumptions Methodology** – An overview of the general methodology used to generate the land use assumptions.
- **Transportation Impact Fee Service Areas** – Explanation of the division of Fort Worth into service areas for transportation facilities.
- **Residential and Employment**– Data on residential and employment growth within the service area over the next ten years (2017 – 2027).
- **Land Use Assumptions Summary** – A synopsis of the land use assumptions.

The residential and employment estimates and projections were compiled in accordance with the following categories:

*Units:* Number of dwelling units, both single and multi-family.

*Employment:* Square feet of building area based on three (3) different classifications. Each classification has unique trip making characteristics.

Retail: Land use activities which provide for the retail sale of goods which primarily serve households and whose location choice is oriented toward the household sector, such as grocery stores and restaurants.

Service: Land use activities which provide personal and professional services, such as government and other professional offices.

Basic: Land use activities that produce goods and services such as those which are exported outside of the local economy, such as manufacturing, construction, transportation, wholesale, trade, warehousing, and other industrial uses.

The above categories are used in the development of the assumptions for impact fees; however, expanded classifications used in the assessment of impact fees are found in the Land Use / Vehicle-Mile Equivalency Table.

## **B. Land Use Assumptions Methodology**

The residential and non-residential growth projections formulated in this report were performed using reasonable and generally accepted planning principles. The following factors were considered in developing these projections:

- Character, type, density, and quantity of existing development;
- Current zoning plans;
- Future Land Use Plan (as currently adopted);
- Growth trends;
- Location of vacant land;
- Physical restrictions (i.e. flood plains, railroads); and
- Physical carrying capacity of Fort Worth.

The following was the process used to develop the land use assumptions:

### **Step 1: Determine Base Year (2017)**

Existing residential and employment estimates were obtained using the 2013 Transportation Impact Fee Study, recent building permit data (2012 – 2017), and an aerial survey of existing development. For single-family and multi-family residential units, the number of units were simply counted from the building permit data. However, if the number of multi-family units was not available through the inventory, a density calculation was performed based on the building permit's livable building square footage. A conversion of square footage per unit was utilized to determine the number of units.

To estimate employment square footage, the livable building square footage data were utilized. Building footprint data and aerials were utilized to supplement the building square footage if the building permit data lacked square footage information.

### **Step 2. Determine Carry Capacity (Growth Potential)**

For the remaining undeveloped areas, assumptions based upon the City's Future Land Use Map (**Exhibit 2**) were used to estimate the carrying capacity or growth potential of land within the Transportation Impact Fee study area for both residential and employment land uses. The carrying capacity was calculated in three basic steps.

- 1) Determine the future land use for study area parcels based on previous planning efforts completed by the City.
- 2) Determine the amount of dwelling units and employment building space that could occupy every parcel – i.e. the parcel's "Carrying Capacity" – based on the future land use development types.
- 3) Identify parcels that are either vacant aggregate those parcels' carrying capacity with the existing dwelling units and employment space on the remaining parcels to generate an estimated growth potential to compare to the 10-year growth forecast.

**Step 3. Determine 10-Year Growth Projections**

As a basis for determining the 10-year growth projections, recent plats (preliminary and final) and Pre-Development Conferences (PDCs) were obtained from City staff. This information was used to identify areas of growth in each service area. The Fort Worth Comprehensive Plan land use in the identified growth areas was used in combination with the plats, PDCs and reasonable density estimates to determine the number of dwelling units and square feet of employment over the next ten years. Following completion of the 10-year growth projections, discussions were held with representatives from involved City departments (Planning and Development & Transportation and Public Works) to verify the identified growth areas and to refine future land use categories in each service area. In some service areas where rapid growth is anticipated, residential projections were adjusted to reflect growth similar to or slightly more aggressive than the growth trend over the previous ten years (2007-2017).

**Step 4. Compare to Historic Growth and Regional Growth Projections**

Research of historical building permits was performed to compare the projected ten-year growth to the year 2027 with previous growth trends in the City of Fort Worth over the last ten years. During the last ten years, approximately 48,097 residential units and 48.7 million square feet of employment were developed. In addition, regional growth projections show an estimated ten-year growth of 50,926 residential units by 2027. It is projected that the next ten years of development will be reasonably close to these estimates.

**C. Transportation Impact Fee Service Areas**

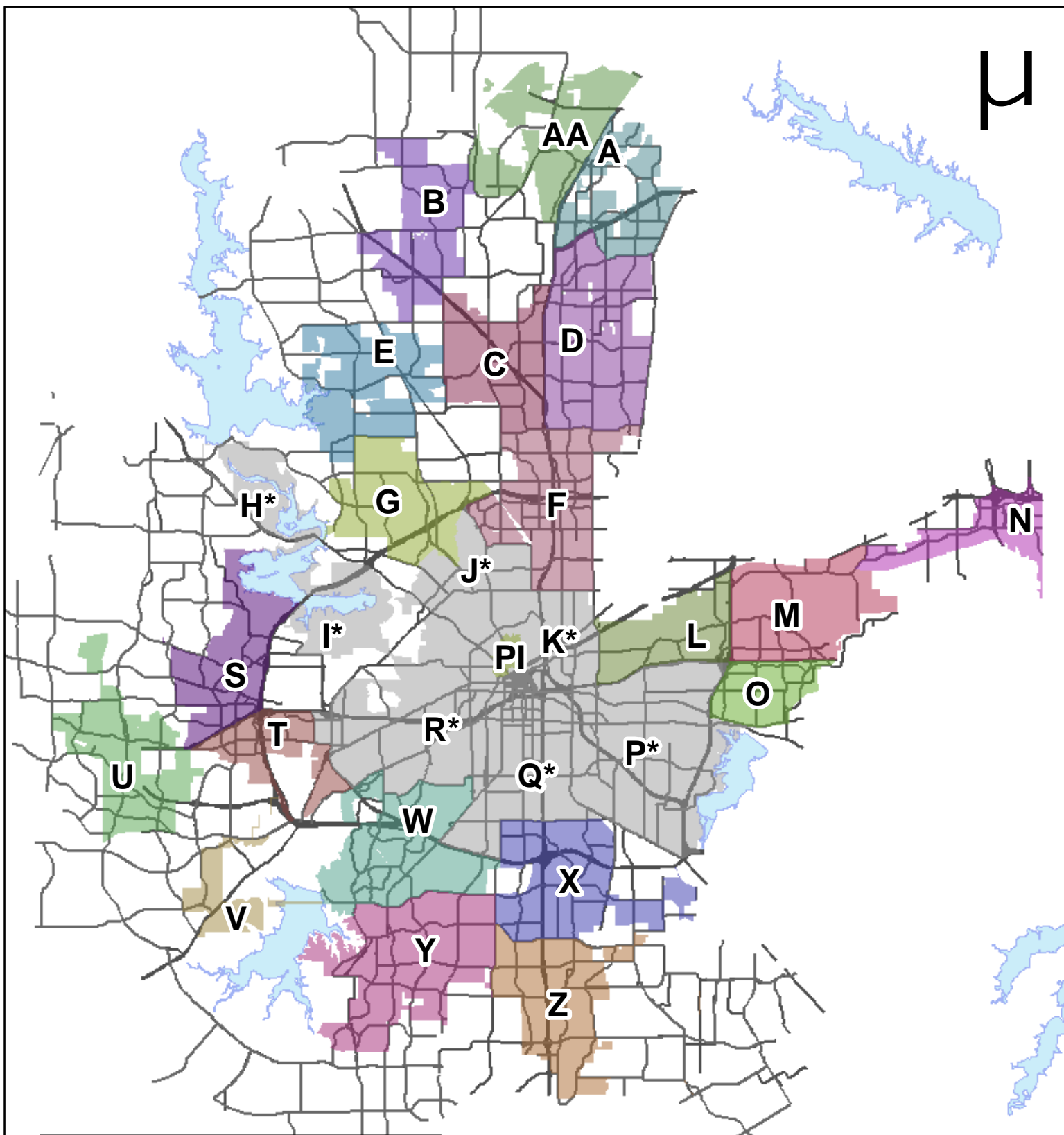
The geographic boundary of the proposed impact fee service areas for transportation facilities is shown in **Exhibit 1**. The service areas in the 2017 Transportation Impact Fee Study are consistent with those in the previous Transportation Impact Fee Study, with only slight modifications necessary in order to include annexations occurring since the previous study. The City of Fort Worth is divided into twenty-seven (28) service areas, each based upon the six (6) mile limit as required in Chapter 395. For transportation facilities, the service areas are limited to those areas within the current corporate limits. Therefore, areas within the extraterritorial jurisdiction (ETJ) (as of January 31, 2017) are excluded from this study. No impact fees may be collected in seven (7) of these Service Areas because no

capacity related transportation improvement projects have been designated. These seven (7) service areas were not analyzed in the 2017 Transportation Impact Fee Study.

It should be noted that at locations where service area boundaries follow a City thoroughfare facility, the proposed boundary is intended to follow the centerline of the roadway, unless otherwise noted. In cases where a service area boundary follows the City Limits, only those portions of the transportation facility within the City Limits are included in the service area.

#### **D. Residential and Employment**

Population and employment estimates for the base year (2017) were performed based upon the existing estimates in the 2013 Transportation Impact Fee Study, recent building permit data, and aerial verification. Build-out projections were prepared by combining the existing land uses within the service area with reasonable density assumptions for undeveloped land based upon the currently adopted Future Land Use Plan. Ten-year growth projections were prepared based upon consultation with City staff and analysis of submitted plat information regarding the approximate portion of currently vacant property that will be developed by 2027. **Exhibit 2** presents the existing City limits and the proposed service areas, combined with the Future Land Use Plan (as currently adopted). **Table 1** summarizes the residential and employment projections within the City of Fort Worth for 2017, 2027, and the physical Carrying Capacity of Fort Worth.



**Legend**

A	G	T	*Non-Impact Fee Eligible
AA	L	U	
B	M	V	
C	N	W	
D	O	X	
E	PI	Y	
F	S	Z	

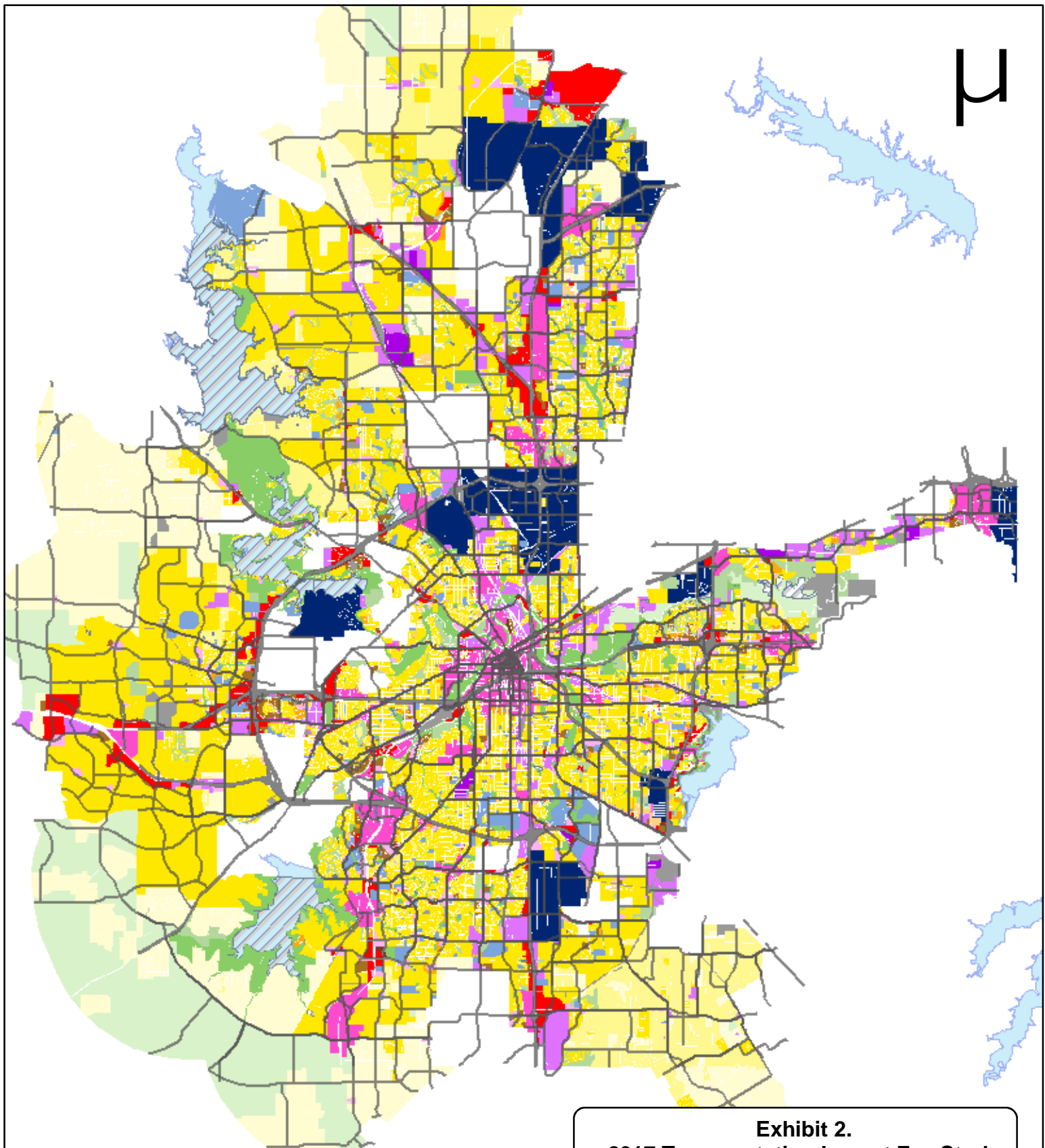
**Exhibit 1.  
2017 Transportation Impact Fee Study  
Service Areas**



November 2017



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**Legend**

- |                                   |                            |                                      |
|-----------------------------------|----------------------------|--------------------------------------|
| Vacant, Undeveloped, Agricultural | Medium Density Residential | Mixed-Use Growth Center              |
| Rural Residential                 | High Density Residential   | Industrial Growth Center             |
| Urban Residential                 | Institutional              | Infrastructure                       |
| Suburban Residential              | Neighborhood Commercial    | 100 Year Flood Plain                 |
| Single Family Residential         | General Commercial         | Public Park, Recreation, Open Space  |
| Manufactured Housing              | Light Industrial           | Private Park, Recreation, Open Space |
| Low Density Residential           | Heavy Industrial           |                                      |

**Exhibit 2.  
2017 Transportation Impact Fee Study  
Future Land Use Plan**



**November 2017**

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**Table 1. Residential and Employment 10-Year Projections**

Service Area	Year	Dwelling Units	Employment (Square Feet)			
			Basic	Service	Retail	Total
A	2017	10,618	7,325,000	1,163,000	59,000	8,547,000
		77%	46%	26%	3%	38%
	2027	12,274	9,800,000	2,523,000	1,369,000	13,691,000
		90%	62%	56%	67%	61%
	Carrying Capacity	13,701	15,818,000	4,480,000	2,055,000	22,354,000
AA	2017	2,411	10,262,000	3,019,000	8,428,000	21,710,000
		37%	45%	45%	80%	54%
	2027	4,204	16,264,000	4,808,000	9,852,000	30,924,000
		97%	71%	72%	93%	77%
	Carrying Capacity	6,509	22,993,000	6,648,000	10,564,000	40,205,000
B	2017	3,535	1,608,000	1,013,000	389,000	3,011,000
		12%	36%	37%	15%	31%
	2027	6,643	3,210,000	1,483,000	779,000	5,472,000
		37%	73%	54%	30%	56%
	Carrying Capacity	30,444	4,416,000	2,745,000	2,571,000	9,732,000
C	2017	10,130	1,505,000	636,000	1,034,000	3,175,000
		51%	40%	32%	18%	28%
	2027	19,218	3,076,000	1,634,000	5,231,000	9,941,000
		97%	82%	81%	91%	87%
	Carrying Capacity	19,752	3,735,000	2,010,000	5,731,000	11,476,000
D	2017	53,664	1,768,000	2,823,000	2,700,000	7,291,000
		82%	48%	55%	41%	47%
	2027	65,061	3,108,000	4,745,000	6,126,000	13,979,000
		99%	85%	93%	92%	91%
	Carrying Capacity	65,672	3,670,000	5,092,000	6,652,000	15,414,000
E	2017	5,074	901,000	202,000	305,000	1,408,000
		17%	21%	20%	27%	22%
	2027	8,415	1,189,000	505,000	908,000	2,602,000
		54%	28%	50%	80%	41%
	Carrying Capacity	29,968	4,230,000	1,017,000	1,128,000	6,375,000
F	2017	16,929	17,232,000	4,371,000	2,551,000	24,155,000
		92%	64%	60%	70%	63%
	2027	17,854	21,076,000	5,612,000	3,192,000	29,880,000
		98%	78%	76%	88%	78%
	Carrying Capacity	18,302	27,105,000	7,338,000	3,622,000	38,065,000



**Table 1 (Continued). Residential and Employment 10-Year Projections**

Service Area	Year	Dwelling Units	Employment (Square Feet)			
			Basic	Service	Retail	Total
G	2017	9,727	1,321,000	1,288,000	1,240,000	3,850,000
		40%	36%	43%	36%	38%
	2027	14,526	1,966,000	1,657,000	1,837,000	5,460,000
		61%	54%	55%	53%	54%
	Carrying Capacity	24,533	3,647,000	3,000,000	3,466,000	10,114,000
L	2017	4,820	3,284,000	1,346,000	1,181,000	5,811,000
		84%	80%	72%	56%	72%
	2027	4,939	3,438,000	1,441,000	1,318,000	6,197,000
		88%	84%	77%	63%	77%
	Carrying Capacity	5,721	4,104,000	1,870,000	2,107,000	8,081,000
M	2017	10,517	1,193,000	1,279,000	1,754,000	4,226,000
		63%	70%	53%	55%	58%
	2027	13,460	1,295,000	1,542,000	2,233,000	5,069,000
		87%	76%	64%	71%	70%
	Carrying Capacity	16,763	1,695,000	2,396,000	3,162,000	7,254,000
N	2017	4,428	6,957,000	3,084,000	1,821,000	11,862,000
		67%	76%	74%	64%	73%
	2027	5,597	7,791,000	3,702,000	2,488,000	13,981,000
		85%	85%	88%	87%	86%
	Carrying Capacity	6,573	9,144,000	4,189,000	2,851,000	16,185,000
O	2017	6,079	251,000	387,000	588,000	1,225,000
		70%	90%	49%	40%	48%
	2027	6,472	251,000	436,000	767,000	1,454,000
		77%	90%	56%	52%	58%
	Carrying Capacity	8,644	278,000	785,000	1,464,000	2,527,000
PI	2017	18	1,534,174	0	128,203	1,662,376
		0%	438%	0%	4%	38%
	2027	2,643	1,202,605	228,620	1,036,383	2,467,607
		28%	344%	28%	32%	56%
	Carrying Capacity	9,374	350,000	816,500	3,243,500	4,410,000
S	2017	6,790	17,000	252,000	1,550,000	1,819,000
		32%	9%	31%	34%	32%
	2027	9,140	17,000	482,000	2,743,000	3,242,000
		73%	9%	60%	60%	58%
	Carrying Capacity	21,153	189,000	804,000	4,610,000	5,603,000

**Table 1 (Continued). Residential and Employment 10-Year Projections**

Service Area	Year	Dwelling Units	Employment (Square Feet)			
			Basic	Service	Retail	Total
T	2017	5,415	495,000	634,000	1,726,000	2,854,000
		76%	38%	56%	52%	50%
	2027	6,127	753,000	794,000	2,253,000	3,800,000
		86%	58%	70%	68%	66%
	Carrying Capacity	7,134	1,301,000	1,133,000	3,317,000	5,751,000
U	2017	3,817	0	0	0	0
		9%	0%	0%	0%	0%
	2027	8,608	470,000	253,000	1,217,000	1,941,000
		21%	30%	41%	60%	46%
	Carrying Capacity	41,503	1,552,000	612,000	2,017,000	4,181,000
V	2017	120	0	0	0	0
		1%	0%	0%	0%	0%
	2027	513	0	3,000	8,000	11,000
		4%	0%	100%	100%	100%
	Carrying Capacity	14,140	0	3,000	8,000	11,000
W	2017	15,244	0	3,519,000	5,560,000	9,079,000
		77%	0%	74%	73%	73%
	2027	15,837	0	3,704,000	5,955,000	9,659,000
		80%	0%	78%	78%	78%
	Carrying Capacity	19,808	0	4,766,000	7,619,000	12,384,000
X	2017	8,328	6,951,000	2,300,000	1,539,000	10,790,000
		64%	54%	55%	53%	54%
	2027	9,526	8,385,000	2,711,000	1,751,000	12,846,000
		73%	66%	64%	60%	65%
	Carrying Capacity	13,046	12,759,000	4,205,000	2,930,000	19,894,000
Y	2017	18,696	344,000	585,000	1,029,000	1,958,000
		41%	73%	24%	11%	16%
	2027	22,531	355,000	1,457,000	7,004,000	8,816,000
		50%	75%	59%	74%	71%
	Carrying Capacity	45,172	472,000	2,483,000	9,422,000	12,377,000
Z	2017	6,185	5,866,000	2,198,000	1,152,000	9,216,000
		31%	61%	52%	23%	49%
	2027	9,730	7,355,000	3,095,000	2,755,000	13,205,000
		49%	76%	73%	56%	70%
	Carrying Capacity	19,994	9,632,000	4,241,000	4,947,000	18,820,000

### III. TRANSPORTATION IMPROVEMENTS PLAN

The City has identified the transportation projects needed to accommodate the projected growth within the City. The Transportation Improvements Plan (TIP) consists of 4 categories of projects. They are as follows:

- **Previous** – Previously completed projects with excess capacity available to serve new growth.
- **Widening** – Existing roadways not currently built to the City’s Master Thoroughfare Plan (MTP) classification, except for some facilities that were identified that are not anticipated to be built out to their ultimate classification.
- **Median** – Existing four-lane divided roadways with adequate median widths to accommodate additional lanes.
- **New** - All remaining projects needed to complete the MTP, including projects currently under construction.

The TIP includes arterial class roadway facilities as well as major intersection improvements. All the roadway facilities identified are included in the MTP (as adopted on May 3, 2016). Through evaluation of the MTP with City staff, some facilities were identified that were downgraded from their previous functional classification. These identified downgraded facilities were removed from the TIP project list in the 2017 Transportation Impact Fee Study. Major intersection improvements were identified at an individual level based on the MTP classification of the intersecting roads, the current traffic control, and the future model volumes. In many cases, roundabouts were recommended as intersection improvements. At locations where existing conditions limit the feasibility of a roundabout, such as at established intersections with traffic signals, turn lane improvements were recommended. Roundabout and turn lane improvements were categorized as follows:

- **New** – Improvements identified at future intersections. This includes new roundabouts or additional turn lanes beyond what is specified in the MTP functional classification for each leg of the intersection. Note that roundabouts were not recommended along future six-lane divided corridors with a projected future daily volume above 20,000.
- **Rebuild** – Improvements identified at existing intersections with one or more legs planned to be rebuilt or widened based on the Impact Fee TIP. These improvements

are assumed to take place as part of the widening and/or reconstruction of the adjacent roadway.

- **Retrofit** – Improvements identified at established intersections. This includes the conversion of an all-way-stop controlled intersection to a roundabout or adding additional turn lanes to a signalized intersection.

All intersection improvement recommendations are recommended to undergo a design level evaluation before implementation to ensure the most appropriate improvements are made. In the case where a design level evaluation determines improvements contrary to the Impact Fee TIP, such as turn lane improvements in place of a roundabout, the impact fee TIP cost allocated to the intersection may still be applied to the alternate improvements.

The proposed TIP is listed in **Tables 2.A – 2.Z** and mapped in **Exhibits 3.A – 3.Z**. The tables show the length of each project as well as the facility's MTP classification. The TIP was developed in conjunction with input from City of Fort Worth staff and represents projects that will be needed to accommodate the growth projected in the Land Use Assumptions section of this report.

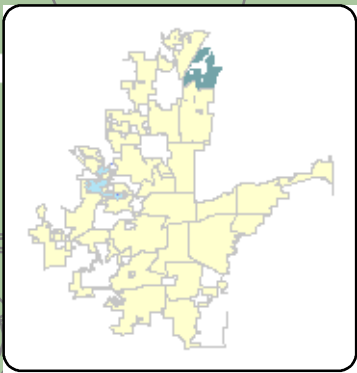
**Table 2.A. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area A**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA A	A-1	CCO-L2-T0-TWLT-P0-BOP (110)	Litsey (1)	IH-35 W to 2,620' E of IH-35 W	0.50	100%
	A-2	CCO-L2-T0-TWLT-P0-BOP (110)	Litsey (2)	2,435' W of Cleaveland Gibbs to Cleaveland Gibbs	0.27	100%
	A-3	NCO-L2-T0-TWLT-P0-BOP (110)	Litsey (3)	1,300' W of Cleaveland Gibbs to Cleaveland Gibbs	0.25	100%
	A-4	NCO-L2-T0-NTMS-P0-BOP (110)	Litsey (4)	Cleveland Gibbs to 875' E of Bluffdale	0.80	100%
	A-5	CCO-L2-T0-NTMS-P0-BOP (110)	Eagle (3)	Beach to 955' E of Beach	0.18	100%
	A-6	CCO-L2-T0-TWLT-P0-BOP (110)	Henrietta Creek (1)	2545' W of Park Vista to 330' E of Park Vista	0.54	100%
	A-7	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Henrietta Creek (2)	90' W of Seventeen Lakes to Independence Pkwy	0.31	100%
	A-8	CCO-L2-T0-NTMS-P0-BOP (110)	Westport (1)	IH-35 W NBFR to 640' E of IH-35 W NBFR	0.00	100%
	A-9	CCO-L2-T0-NTMS-P0-BOP (110)	Westport (2)	640' E of IH-35 W NBFR to Old Denton	0.62	100%
	A-10	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (3)	Old Denton to Beach	0.49	100%
	A-11	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (4)	Beach to Alta Vista	0.41	100%
	A-12	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (5)	495' W of SH 170 WBFR to SH 170 WBFR	0.09	100%
	A-13	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (6)	SH 170 EBFR to 625' W of Park Vista	0.40	100%
	A-14	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Westport (7)	400' E of Park Vista to 1370' W of Independence	0.37	100%
	A-15, D-1	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (1)	485' E of Lilybrook to N Caylor	0.29	50%
	A-16, D-2	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (2)	N Caylor to 375' E of N Caylor	0.07	50%
	A-17, D-3	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (3)	375' E of N Caylor to Park Vista	0.22	50%
	A-18, D-4	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (4)	Park Vista to 355' E of Park Vista	0.07	50%
	A-19, D-5	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Timberland (5)	355' E of Park Vista to 425' E of Harvest Oaks	0.46	50%
	A-20, D-6	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (6)	425' E of Harvest Oaks to Main	0.10	50%
	A-21	CCO-L2-T0-TWLT-P0-BOP (110)	Old Denton (1)	Westport to 1095' S of Westport	0.21	100%
	A-22	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Old Denton (2)	1095' S of Westport to SH 170 WBFR	0.31	100%
	A-23	CCO-L2-T0-TWLT-P0-BOP (110)	Beach (1)	(Future) Litsey to 730' S of (Future) Litsey	0.14	100%
	A-24	CCO-L2-T0-TWLT-P0-BOP (110)	Beach (2)	730' S of (Future) Litsey to 2,010' S of (Future) Litsey	0.24	100%
	A-25	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)	Beach (3)	Eagle to 800' S of Eagle	0.15	100%
	A-26	CCO-L2-T0-NTMS-P0-BLC (110)	Beach (4)	800' S of Henrietta Creek to 1,830' S of Henrietta Creek	0.19	100%
	A-27	CCO-L2-T0-NTMS-P0-BLC (110)	Beach (5)	1,350' N of Westport to Westport	0.26	100%
	A-28	CCO-L2-T0-NTMS-P0-BLC (110)	Beach (6)	Westport to SH 170 WBFR	0.21	100%
	A-29, D-32	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Beach (7)	SH 170 EBFR to 2,045' S of SH 170 EBFR	0.39	50%
	A-30, D-33	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Beach (8)	410' N of Saratoga Downs to Timberland	0.70	50%
	A-31	NCO-L1-T0-TWLT-P0-BOP (80)	Park Vista (1)	995' S of Henrietta Creek to 1,480' S of Henrietta Creek	0.09	100%
	A-32	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Park Vista (2)	Keller Hasket to 415' N of Timberland	0.48	100%
	A-33	NCO-L2-T0-NTMS-P0-BOP (110)	Park Vista (3)	415' N of Timberland to Timberland	0.08	100%
	A-34	CCO-L2-T0-TWLT-P0-BOP (110)	Independence	Litsey to Henrietta Creek	1.15	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Beach	Timberland	Rebuild	25%
		Turn Lane Improvements	US 377	Timberland	Rebuild	25%
		Turn Lane Improvements	Eagle	Beach	Rebuild	100%
		Roundabout	Henrietta Creek	Independence	Rebuild	100%
		Roundabout	Henrietta Creek	Park Vista	New	100%
		Roundabout	Litsey	Beach	New	100%
		Roundabout	Westport	Beach	New	100%
		Roundabout	Westport	Independence	Retrofit	100%
		Roundabout	Westport	Old Denton	Rebuild	100%
		Roundabout	Westport	Park Vista	Retrofit	100%

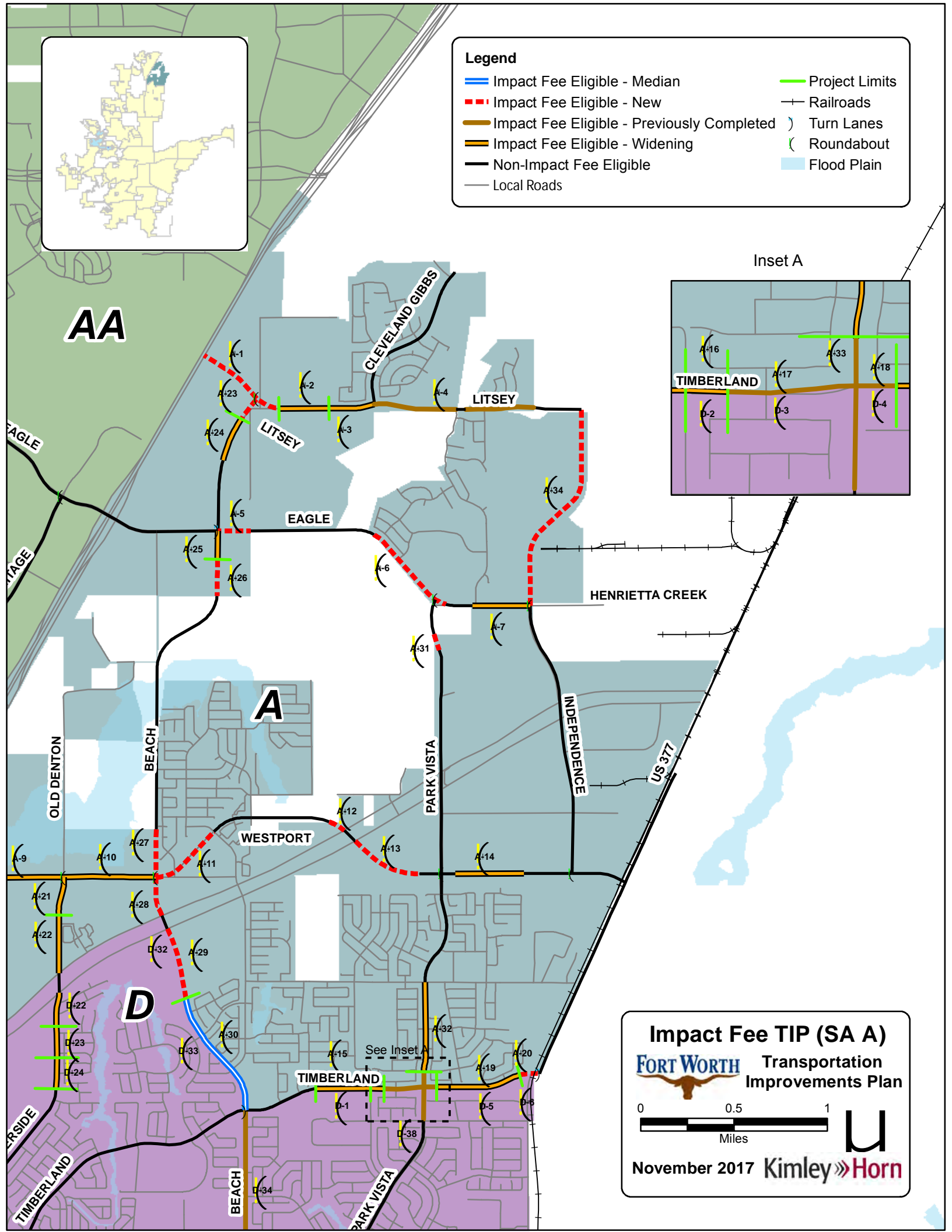
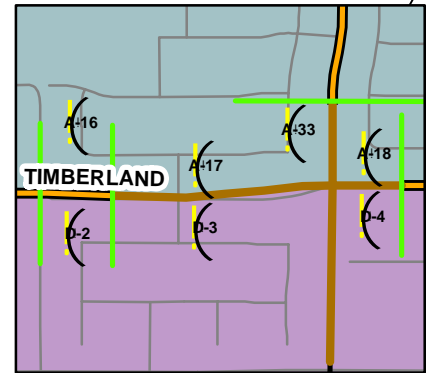
Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.

# Legend

- Impact Fee Eligible - Median
- Impact Fee Eligible - New
- Impact Fee Eligible - Previously Completed
- Impact Fee Eligible - Widening
- Non-Impact Fee Eligible
- Local Roads
- Project Limits
- Railroads
- Turn Lanes
- Roundabout
- Flood Plain



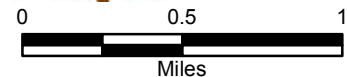
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## Impact Fee TIP (SA A)



Transportation  
Improvements Plan



November 2017 Kimley»Horn

**Table 2.AA. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area AA**

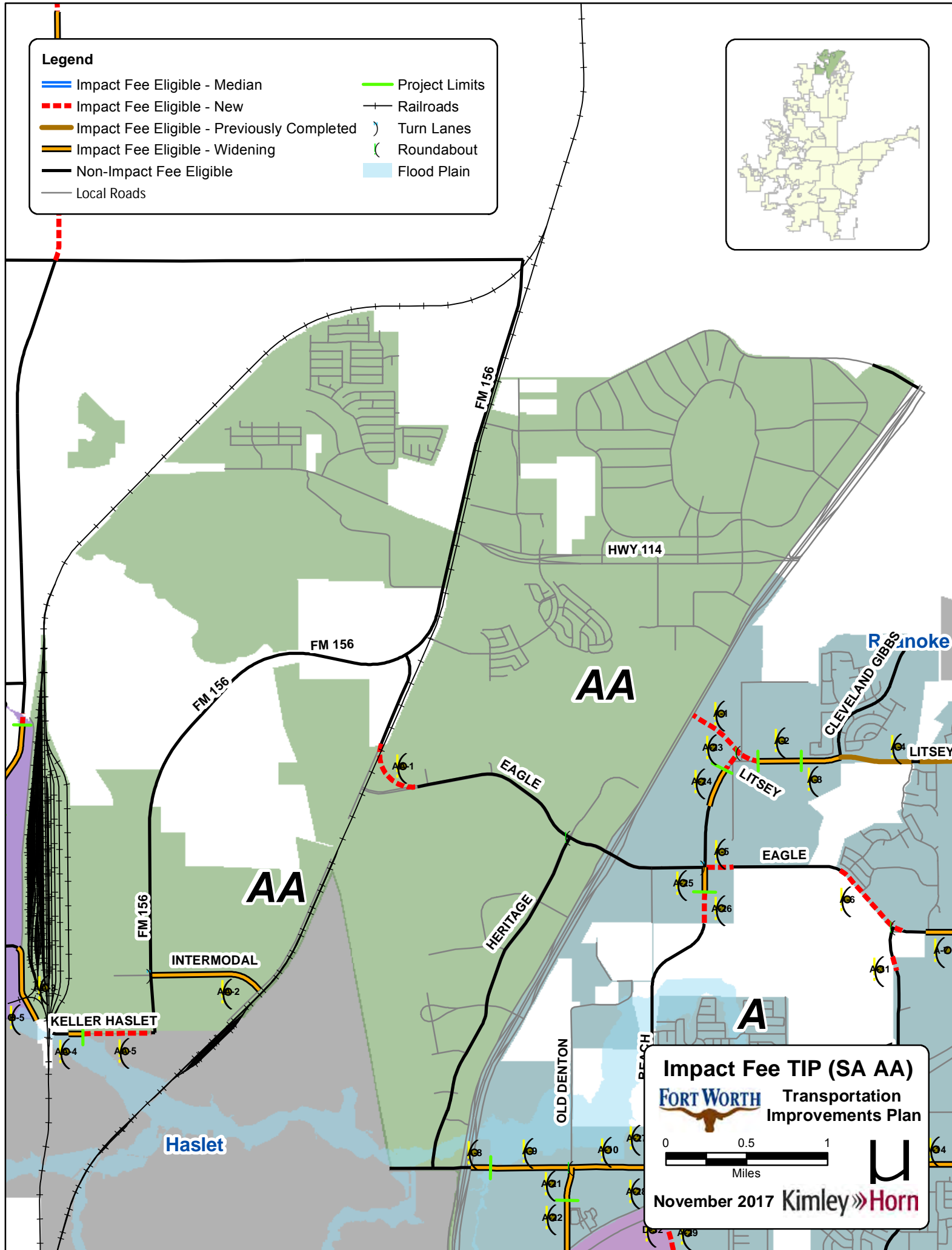
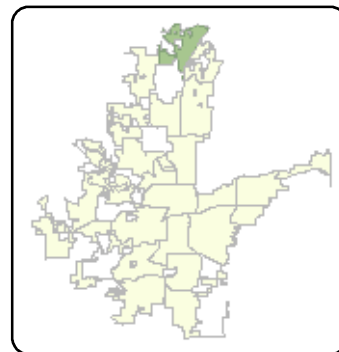
Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA AA	AA-1	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Eagle	2,190' N of Eagle to Eagle	0.41	100%
	AA-2	CCO-L3-T0-NTMS-P0-BOP (130) (W) (1/2)	Intermodal	FM 156 to Old Blue Mound	0.70	100%
	AA-3, B-5	NCO-L2-T0-NTMS-P0-BOP (110)	Keller Haslet (1)	965' E of John Day to 3,485' E of John Day	0.48	50%
	AA-4	NCO-L2-T0-TWLT-P0-BOP (110)	Keller Haslet (2)	2,825' W of FM 156 to Keller Haslet	0.09	100%
	AA-5	NCO-L2-T0-TWLT-P0-BOP (110)	Keller Haslet (3)	Keller Haslet to 125' W of FM 156	0.42	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Roundabout	Eagle	Heritage	Retrofit	100%
		Turn Lane Improvements	Intermodal	FM 156	Rebuild	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



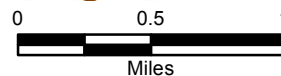
# Legend

- Impact Fee Eligible - Median
- Impact Fee Eligible - New
- Impact Fee Eligible - Previously Completed
- Impact Fee Eligible - Widening
- Non-Impact Fee Eligible
- Local Roads
- Project Limits
- Railroads
- Turn Lanes
- Roundabout
- Flood Plain



## Impact Fee TIP (SA AA)

**FORT WORTH** Transportation Improvements Plan



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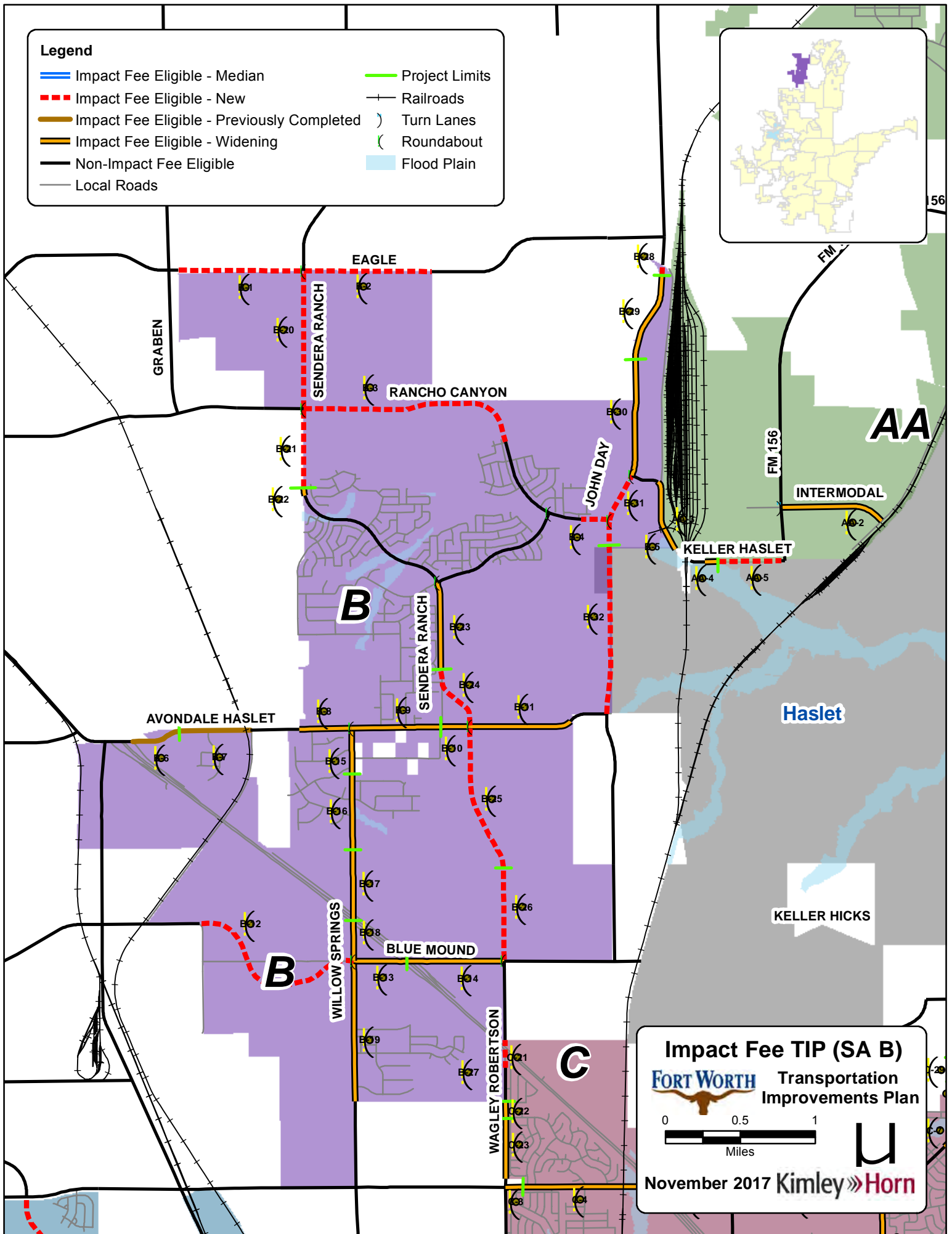
**Table 2.B. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area B**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA B	B-1	NCO-L2-T0-TWLT-P0-BOP (110)	Eagle (1)	330' E of Graben to Sendera Ranch	0.84	50%
	B-2	NCO-L2-T0-TWLT-P0-BOP (110)	Eagle (2)	Sendera Ranch to 4,510' E of Sendera Ranch	0.85	50%
	B-3	NCO-L2-T0-TWLT-P0-BOP (110)	Rancho Canyon (1)	Sendera Ranch to Skytop	1.50	100%
	B-4	NCO-L2-T0-NTMS-P0-BOP (110)	Rancho Canyon (2)	Cabo to John Day	0.19	100%
	AA-3, B-5	NCO-L2-T0-TWLT-P0-BOP (110)	Keller Haslet (1)	965' E of John Day to 3,485' E of John Day	0.48	50%
	B-6	CCO-L2-T0-TWLT-P0-BOP (110)	Avondale Haslet (1)	US 287 NBFR to 1,715' E of US 287 NBFR	0.32	100%
	B-7	CCO (E) (4U)	Avondale Haslet (2)	1,715' E of US 287 NBFR to Bates Aston	0.47	100%
	B-8	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (3)	455' W of Willow Ranch to Willow Springs	0.35	100%
	B-9	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (4)	Willow Springs to Sendera Ranch	0.60	100%
	B-10	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (5)	Sendera Ranch to 1,015' E of Sendera Ranch	0.19	100%
	B-11	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (6)	1,015' E of Sendera Ranch to 1,360' W of John Day	0.68	100%
	B-12	NCO-L2-T0-NTMS-P0-BOP (110)	Blue Mound (1)	Blue Mound (Existing) to Willow Springs	1.30	100%
	B-13	CCO-L2-T0-NTMS-P0-BOP (110)	Blue Mound (2)	Willow Springs to US 287 SBFR	0.35	100%
	B-14	CCO-L2-T0-NTMS-P0-BOP (110)	Blue Mound (3)	US 287 NBFR to Wagley Robertson	0.65	100%
	B-15	NCO-L2-T0-TWLT-P0-BOP (110)	Willow Springs (1)	Avondale Haslet to 200' S of Velda Kay	0.30	100%
	B-16	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (2)	200' S of Velda Kay to 1235' S of Singleton	0.51	100%
	B-17	CCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (3)	1235' S of Singleton to US 287 NBFR	0.47	100%
	B-18	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (4)	US 287 NBFR to Blue Mound	0.27	100%
	B-19	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (5)	Blue Mound to 510' S of Twisting Star	0.94	100%
	B-20	NCO-L2-T0-TWLT-P0-BOP (110)	Sendera Ranch (1)	Eagle to Rancho Canyon	0.92	100%
	B-21	NCO-L2-T0-TWLT-P0-BOP (110)	Sendera Ranch (2)	Rancho Canyon to Suncatcher	0.53	50%
	B-22	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Sendera Ranch (3)	Suncatcher to 275' S of Suncatcher	0.05	100%
	B-23	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Sendera Ranch (4)	Diamondback to 450' N of Cactus Spine	0.58	100%
	B-24	NCO-L2-T0-NTMS-P0-BOP (110)	Sendera Ranch (5)	450' N of Cactus Spine to Avondale Haslet	0.46	100%
	B-25	NCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (1)	Avondale Haslet to 5,220' S of Avondale Haslet	0.99	100%
	B-26	NCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (2)	5,220' S of Avondale Haslet to Blue Mound	0.62	100%
	B-27, C-21	CCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (3)	245' N of US 287 to 725' S of US 287	0.18	50%
	B-28	NCO-L2-T0-TWLT-P0-BOP (110)	John Day (1)	985' S of Eagle to 1,360' S of Eagle	0.07	100%
	B-29	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	John Day (2)	1,360' S of Eagle to 4,515' S of Eagle	0.60	100%
	B-30	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	John Day (3)	4,515' S of Eagle to Keller Haslet	0.78	100%
	B-31	CCO-L2-T0-NTMS-P0-BOP (110)	John Day (4)	Keller Haslet to Rancho Canyon	0.33	100%
	B-32	NCO-L2-T0-TWLT-P0-BOP (110)	John Day (5)	Rancho Canyon to 990' S of Rancho Canyon	0.19	100%
	B-33	NCO-L2-T0-TWLT-P0-BOP (110)	John Day (6)	990' S of Rancho Canyon to Avondale-Haslet Rd	1.10	50%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Roundabout	Avondale Haslet	Sendera Ranch	Rebuild	100%
		Roundabout	Avondale Haslet	Willow Springs	Rebuild	100%
		Roundabout	Blue Mound	Wagley Robertson	Rebuild	75%
		Roundabout	Blue Mound	Willow Springs	Rebuild	100%
		Roundabout	Diamondback	Rancho Canyon	Retrofit	100%
		Roundabout	Eagle	Sendera Ranch	New	50%
		Roundabout	Keller Haslet	John Day	Rebuild	100%
		Roundabout	Rancho Canyon	John Day	New	100%
		Roundabout	Rancho Canyon	Sendera Ranch	New	75%
		Roundabout	Sendera Ranch	Diamondback	Rebuild	100%

Notes: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.

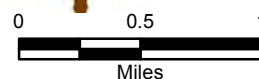
# Legend

- Impact Fee Eligible - Median
- - - Impact Fee Eligible - New
- Impact Fee Eligible - Previously Completed
- Impact Fee Eligible - Widening
- Non-Impact Fee Eligible
- Local Roads
- Project Limits
- Railroads
- ) Turn Lanes
- ( Roundabout
- Flood Plain



## Impact Fee TIP (SA B)

**FORT WORTH** Transportation Improvements Plan



November 2017 Kimley-Horn

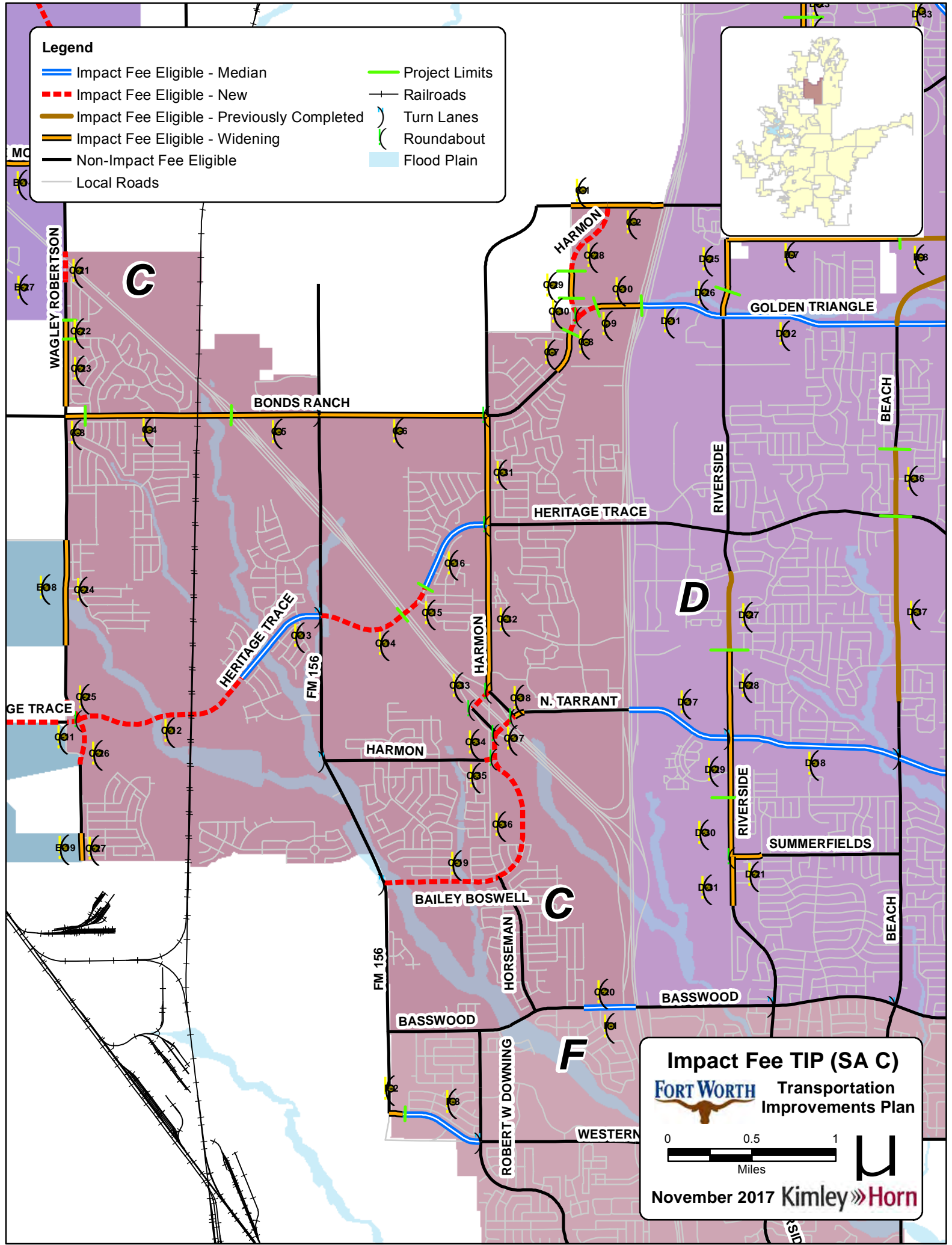
**Table 2.C. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area C**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA C	C-1	CCO-L2-T0-TWLT-P0-BOP (110)	Keller Hicks (1)	Harmon to Harmon (Future)	0.22	50%
	C-2	NCO-L2-T0-NTMS-P0-BOP (110)	Keller Hicks (2)	Harmon (Future) to IH-35 W SBFR	0.33	50%
	C-3	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (1)	Wagley Robertson to 625' E of Wagley Robertson	0.12	50%
	C-4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (2)	625' E Wagley Robertson to US 287 SBFR	0.87	100%
	C-5	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (3)	US 287 SBFR to FM 156	0.52	100%
	C-6	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (4)	FM 156 to Harmon	1.00	100%
	C-7	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Golden Triangle (1)	470' E of Misty Redwood to Golden Heights	0.25	100%
	C-8	CCO-L2-T0-NTMS-P0-BOP (110)	Golden Triangle (2)	Golden Heights to Harmon (Future)	0.11	100%
	C-9	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Golden Triangle (3)	Harmon (Future) to 615' E of Harmon	0.12	100%
	C-10	CCO-L3-T0-NTMS-P0-BOP (130)	Golden Triangle (4)	615' E of Harmon to IH-35W	0.27	100%
	C-11	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (6)	Wagley Robertson to Wagley Robertson (Future)	0.08	100%
	C-12	NCO-L3-T0-NTMS-P0-BLS (130) (W)	Heritage Trace (7)	Wagley Robertson (Future) to Copper Crossing	1.08	100%
	C-13	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Heritage Trace (8)	Copper Crossing to FM 156	0.36	100%
	C-14	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Heritage Trace (9)	Blue Mound to US 287 SBFR	0.53	100%
	C-15	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Heritage Trace (10)	US 287 to 1,145' E of US 287	0.22	100%
	C-16	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Heritage Trace (11)	135' W of Creosote to Harmon	0.39	100%
	C-17	NCO-L2-T0-NTMS-P0-BLS (110)	N. Tarrant (1)	US 287 SBFR to US 287 NBFR	0.15	100%
	C-18	CCO-L3-T0-NTMS-P0-BLB (130)	N. Tarrant (2)	US 287 NBFR to 335' E of US 287 NBFR	0.06	100%
	C-19	NCO-L2-T0-NTMS-P0-BOP (110)	Bailey Boswell (4)	FM 156 to Horseman	0.69	100%
	C-20, F-1	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Basswood	Candler to IH-35 W	0.31	50%
	C-21, B-27	CCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (3)	245' N of US 287 to 725' S of US 287	0.18	50%
	C-22	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Wagley Robertson (4)	565' N of Hawks Landing to Hawks Landing	0.11	100%
	C-23	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Wagley Robertson (5)	Hawks Landing to 310' N of Bonds Ranch	0.41	100%
	C-24, E-18	NCO-L2-T0-TWLT-P0-BOP (110)	Wagley Robertson (6)	690' N of Quicksilver to 1795' S of Bent Oak	0.63	50%
	C-25	NCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (7)	735' N of Heritage Trace to Heritage Trace	0.14	100%
	C-26	NCO-L1-T0-TWLT-P0-BOP (80)	Wagley Robertson (8)	Heritage Trace to 1465' S of Heritage Trace	0.28	100%
	C-27, E-19	NCO-L1-T0-TWLT-P0-BOP (80)	Wagley Robertson (9)	145' N of Mystic River to 715' S of Mystic River	0.16	50%
	C-28	CCO-L1-T0-TWLT-P0-BOP (80)	Harmon (1)	Keller Hicks to 2,475' S of Keller Hicks	0.47	100%
	C-29	CCO-L1-T0-TWLT-P0-BOP (80)	Harmon (2)	2,475' S of Keller Hicks to 640' N of Golden Triangle	0.16	50%
	C-30	CCO-L1-T0-TWLT-P0-BOP (80)	Harmon (3)	640' N of Golden Triangle to Golden Triangle	0.12	100%
	C-31	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Harmon (4)	Bonds Ranch to Heritage Trace	0.65	100%
	C-32	NCO-L2-T0-TWLT-P0-BOP (110)	Harmon (5)	Heritage Trace to US 287 NBFR	0.99	100%
	C-33	NCO-L2-T0-TWLT-P0-BOP (110)	Harmon (6)	US 287 NBFR to US 287 SBFR	0.14	100%
	C-34	NCO-L2-T0-NTMS-P0-BLS (110)	Harmon (7)	US 287 SBFR to Harmon	0.15	100%
	C-35	NCO-L2-T0-NTMS-P0-BLS (110)	Harmon (8)	330' W of Bailey Boswell to Bailey Boswell	0.06	100%
	C-36	NCO-L2-T0-TWLT-P0-BOP (110)	Bailey Boswell (5)	Harmon to Horseman	0.81	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Bailey Boswell	FM 156	Rebuild	50%
		Turn Lane Improvements	Bonds Ranch	FM 156	Rebuild	75%
		Roundabout	Bonds Ranch	Harmon	Rebuild	75%
		Roundabout	Golden Triangle	Harmon	New	100%
		Turn Lane Improvements	Harmon	FM 156	Retrofit	100%
		Roundabout	Harmon	Bailey Boswell	New	100%
		Roundabout	Harmon	US 287 NBFR	New	100%
		Roundabout	Harmon	US 287 SBFR	New	100%
		Roundabout	Heritage Trace	Harmon	Rebuild	100%
		Roundabout	Heritage Trace	Wagley Robertson	New	100%
		Turn Lane Improvements	Heritage Trace	FM 156	Rebuild	100%
		Roundabout	N. Tarrant	US 287 SBFR	New	100%
		Roundabout	N. Tarrant	US 287 NBFR	New	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.

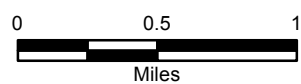
# Legend

- Impact Fee Eligible - Median
- Impact Fee Eligible - New
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- Impact Fee Eligible - Widening
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- Roundabout
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## Impact Fee TIP (SA C)

### FORT WORTH Transportation Improvements Plan



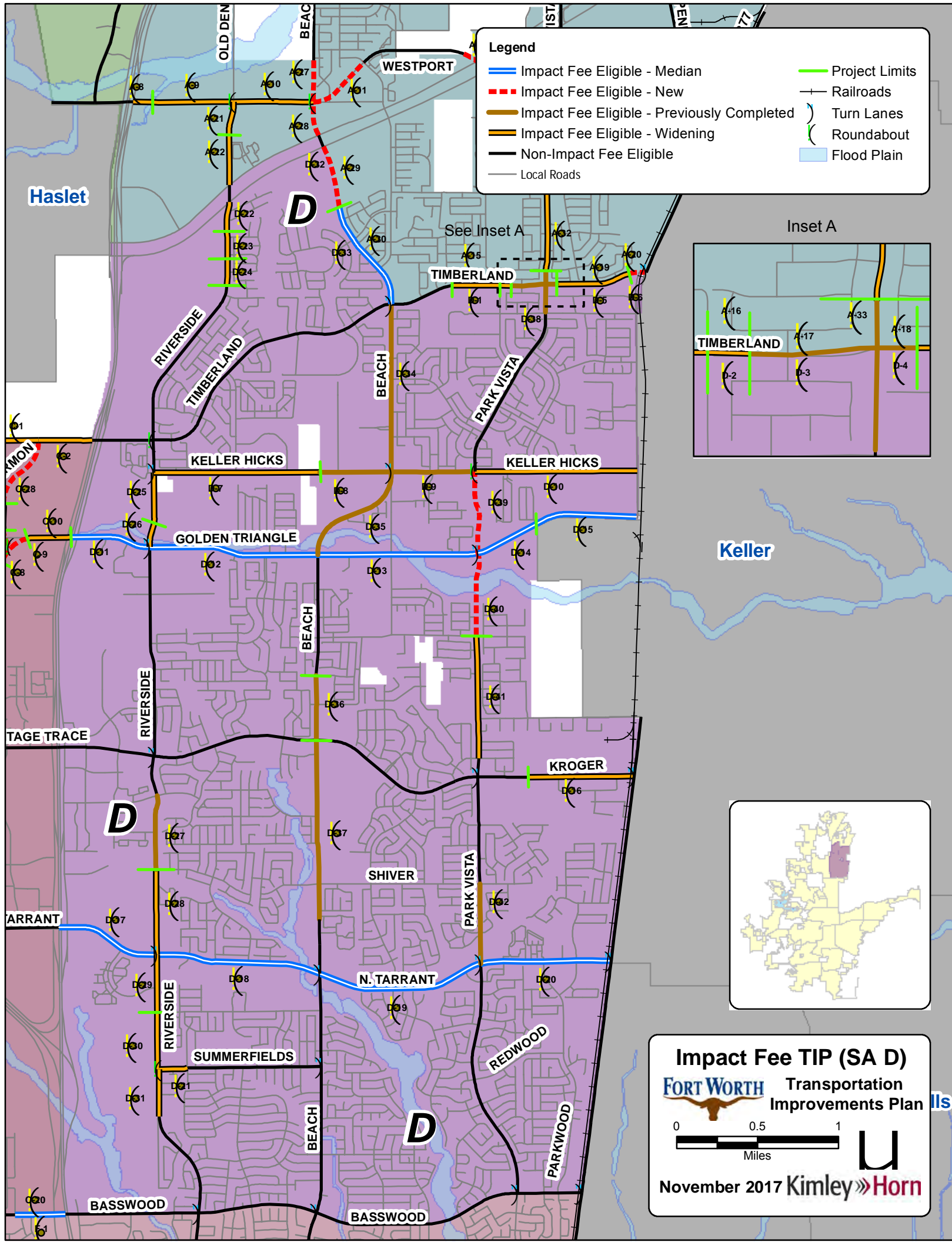
November 2017 Kimley»Horn

**Table 2.D. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area D**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA D	A-15, D-1	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (1)	485' E of Lilybrook to N Caylor	0.29	50%
	A-16, D-2	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (2)	N Caylor to 375' E of N Caylor	0.07	50%
	A-17, D-3	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (3)	375' E of N Caylor to Park Vista	0.22	50%
	A-18, D-4	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (4)	Park Vista to 355' E of Park Vista	0.07	50%
	A-19, D-5	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Timberland (5)	355' E of Park Vista to 425' E of Harvest Oaks	0.46	50%
	A-20, D-6	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (6)	425' E of Harvest Oaks to US 377	0.10	50%
	D-7	NCO-L1-T0-TWLT-P0-BOP (80)	Keller Hicks (1)	Old Denton to 600' W of Ridgeview	1.03	100%
	D-8	NCO (E)	Keller Hicks (2)	600' W of Ridgeview to Alta Vista	0.44	100%
	D-9	CCO (E)	Keller Hicks (3)	Alta Vista to Park Vista	0.52	100%
	D-10	CCO-L1-T0-TWLT-P0-BOP (80)	Keller Hicks (4)	Park Vista to Katy	1.00	100%
	D-11	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (5)	IH-35 W to Old Denton	0.50	100%
	D-12	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (6)	Old Denton to Beach	1.05	100%
	D-13	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (7)	Beach to Park Vista	0.99	100%
	D-14	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (8)	Park Vista to 2,130' E of Park Vista	0.40	100%
	D-15	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (9)	2,130' E of Park Vista to Katy	0.63	100%
	D-16	CCO-L2-T0-TWLT-P0-BOP (110)	Kroger	1,650' E of Ray White to US 377	0.65	100%
	D-17	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	N. Tarrant (3)	IH-35 W to Riverside	0.65	100%
	D-18	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	N. Tarrant (4)	Riverside to Beach	1.02	100%
	D-19	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	N. Tarrant (5)	Beach to Park Vista	1.05	100%
	D-20	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	N. Tarrant (6)	Park Vista to US 377	0.81	100%
	D-21	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Summerfields	Riverside to Cannonwood	0.18	100%
	D-22	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (1)	SH 170 EBFR to 180' N of Hidden Valley	0.18	100%
	D-23	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (2)	180' N of Hidden Valley to 135' S of San Fernando	0.17	100%
	D-24	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (3)	135' S of San Fernando to 325' N of Sawtimber	0.17	100%
	D-25	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (4)	Keller Hicks to 800' N of Golden Triangle	0.31	100%
	D-26	CCO-L2-T0-NTMS-P0-BOP (110)	Riverside (5)	800' N of Golden Triangle to Golden Triangle	0.15	100%
	D-27	NCO-L2-T0-NTMS-P0-BOP (110)	Riverside (6)	Prairie Vista to Shiver	0.46	100%
	D-28	NCO-L2-T0-NTMS-P0-BOP (110)	Riverside (7)	Shiver to N. Tarrant	0.52	100%
	D-29	NCO-L2-T0-TWLT-P0-BOP (110)	Riverside (8)	N. Tarrant to Thompson	0.36	100%
	D-30	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (9)	Thompson to Summerfields	0.36	100%
	D-31	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (10)	Summerfields to Old Denton Rd	0.29	100%
	A-29, D-32	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Beach (7)	SH 170 EBFR to 2,045' S of SH 170 EBFR	0.39	50%
	A-30, D-33	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Beach (8)	410' N of Saratoga Downs to Timberland	0.70	50%
	D-34	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (9)	Timberland to Keller Hicks	1.04	100%
	D-35	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (10)	Keller Hicks to Golden Triangle	0.75	100%
	D-36	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (11)	Vista Meadows to Heritage Trace	0.40	100%
	D-37	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (12)	Heritage Trace to 155' S of Springview Ln	1.11	100%
	D-38	NCO-L2-T0-NTMS-P0-BOP (110)	Park Vista (4)	Timberland to Caylor	0.17	100%
	D-39	NCO-L2-T0-TWLT-P0-BOP (110)	Park Vista (5)	Keller Hicks to Golden Triangle	0.51	100%
	D-40	NCO-L2-T0-TWLT-P0-BOP (110)	Park Vista (6)	Golden Triangle to Ray White	0.51	100%
	D-41	NCO-L2-T0-TWLT-P0-BOP (110)	Park Vista (7)	Wyndbrook to Mirage	0.76	100%
	D-42	NCO (E)	Park Vista (8)	Shiver to N. Tarrant	0.49	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Beach	Timberland	Retrofit	75%
		Turn Lane Improvements	Beach	Keller Hicks	Retrofit	100%
		Turn Lane Improvements	Beach	N. Tarrant	Retrofit	100%
		Turn Lane Improvements	Beach	Basswood	Retrofit	50%
		Turn Lane Improvements	US 377	N. Tarrant	Retrofit	50%
		Turn Lane Improvements	US 377	Basswood	Retrofit	25%
		Turn Lane Improvements	US 377	Timberland	Rebuild	25%
		Roundabout	Riverside	Timberland	Retrofit	100%
		Turn Lane Improvements	Riverside	Golden Triangle	Rebuild	100%
		Roundabout	Park Vista	Keller Hicks	Rebuild	100%
		Turn Lane Improvements	Park Vista	Golden Triangle	Rebuild	100%
		Turn Lane Improvements	Park Vista	Heritage Trace	Retrofit	100%
		Turn Lane Improvements	Park Vista	N. Tarrant	Retrofit	100%
		Turn Lane Improvements	Park Vista	Basswood	Retrofit	50%
		Turn Lane Improvements	Riverside	N. Tarrant	Rebuild	100%
		Roundabout	Riverside	Summerfields	Rebuild	100%
		Turn Lane Improvements	Riverside	Basswood	Retrofit	50%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.





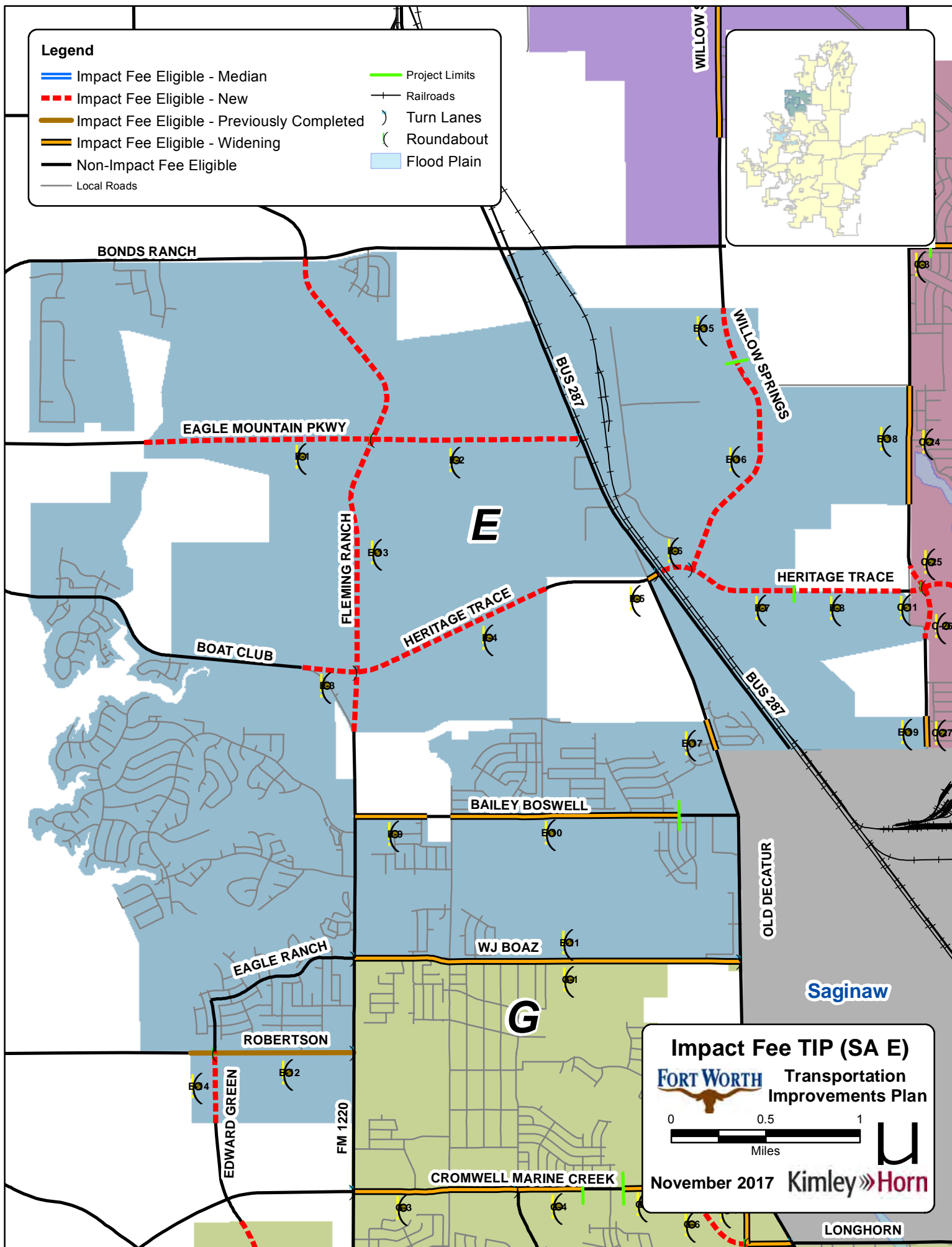
**Table 2.E. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area E**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA E	E-1	NCO-L2-T0-TWLT-P0-BOP (110)	Eagle Mountain (1)	6,390' W of Fleming Ranch to Fleming Ranch	1.21	100%
	E-2	NCO-L2-T0-NTMS-P0-BOP (110)	Eagle Mountain (2)	Fleming Ranch to BUS 287	1.10	100%
	E-3	NCO-L2-T0-NTMS-P0-BLS (110)	Boat Club	1,555' W of Fleming Ranch to Fleming Ranch	0.29	100%
	E-4	NCO-L3-T0-NTMS-P0-BLS (130) (W)	Heritage Trace (1)	Fleming Ranch to 5,790' E of Fleming Ranch	1.10	100%
	E-5	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (2)	Old Decatur to BUS 287	0.06	100%
	E-6	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (3)	BUS 287 to Willow Springs	0.19	100%
	E-7	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (4)	Willow Springs to 3,005' E of Willow Springs	0.57	100%
	E-8	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (5)	3,005' E of Willow Springs to 275' W of Wagley Robertson	0.56	50%
	E-9	NCO-L2-T0-NTMS-P0-BOP (110)	Bailey Boswell (1)	FM 1220 to 2,020' E of FM 1220	0.38	50%
	E-10	NCO-L2-T0-NTMS-P0-BOP (110)	Bailey Boswell (2)	35' W of Bowman Roberts to 440' E of Wind River	1.21	100%
	E-11, G-1	NCO-L2-T0-NTMS-P0-BOP (110)	WJ Boaz	FM 1220 to Old Decatur Rd	2.05	50%
	E-12	NCO (E)	Robertson	680' W of Lake Country to Boat Club	0.87	100%
	E-13	NCO-L3-T0-NTMS-P0-BLS (130) (W)	Fleming Ranch	Bonds Ranch to 1,670' S of Heritage Trace	2.68	100%
	E-14	NCO-L1-T0-TWLT-P0-BOP (80)	Edward Green	Robertson to 1,995' S of Robertson	0.38	100%
	E-15	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (6)	1,725' S of Bonds Ranch to 3,290' S of Bonds Ranch	0.30	100%
	E-16	CCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (7)	6570' N of Heritage Trace to Heritage Trace	1.24	100%
	E-17	NCO-L1-T0-TWLT-P0-BOP (80)	Old Decatur (1)	680' N of Milo to 195' S of Millstone	0.17	100%
	C-24, E-18	NCO-L2-T0-TWLT-P0-BOP (110)	Wagley Robertson (6)	690' N of Quicksilver to 1,795' S of Bent Oak	0.63	50%
	C-27, E-19	NCO-L1-T0-TWLT-P0-BOP (80)	Wagley Robertson (9)	145' N of Mystic River to 715' S of Mystic River	0.16	50%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Eagle Mountain	BUS 287	Rebuild	100%
		Roundabout	Eagle Mountain	Fleming Ranch	New	100%
		Turn Lane Improvements	Heritage Trace	BUS 287	Rebuild	100%
		Turn Lane Improvements	Heritage Trace	Willow Springs	New	100%
		Turn Lane Improvements	Heritage Trace	Fleming Ranch	New	100%
		Roundabout	Robertson	Edward Green	Rebuild	100%
		Turn Lane Improvements	Robertson	FM 1220	Retrofit	50%
		Turn Lane Improvements	WJ Boaz	FM 1220	Rebuild	75%
		Turn Lane Improvements	WJ Boaz	Old Decatur	Rebuild	25%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.

# Legend

- Impact Fee Eligible - Median
- - - Impact Fee Eligible - New
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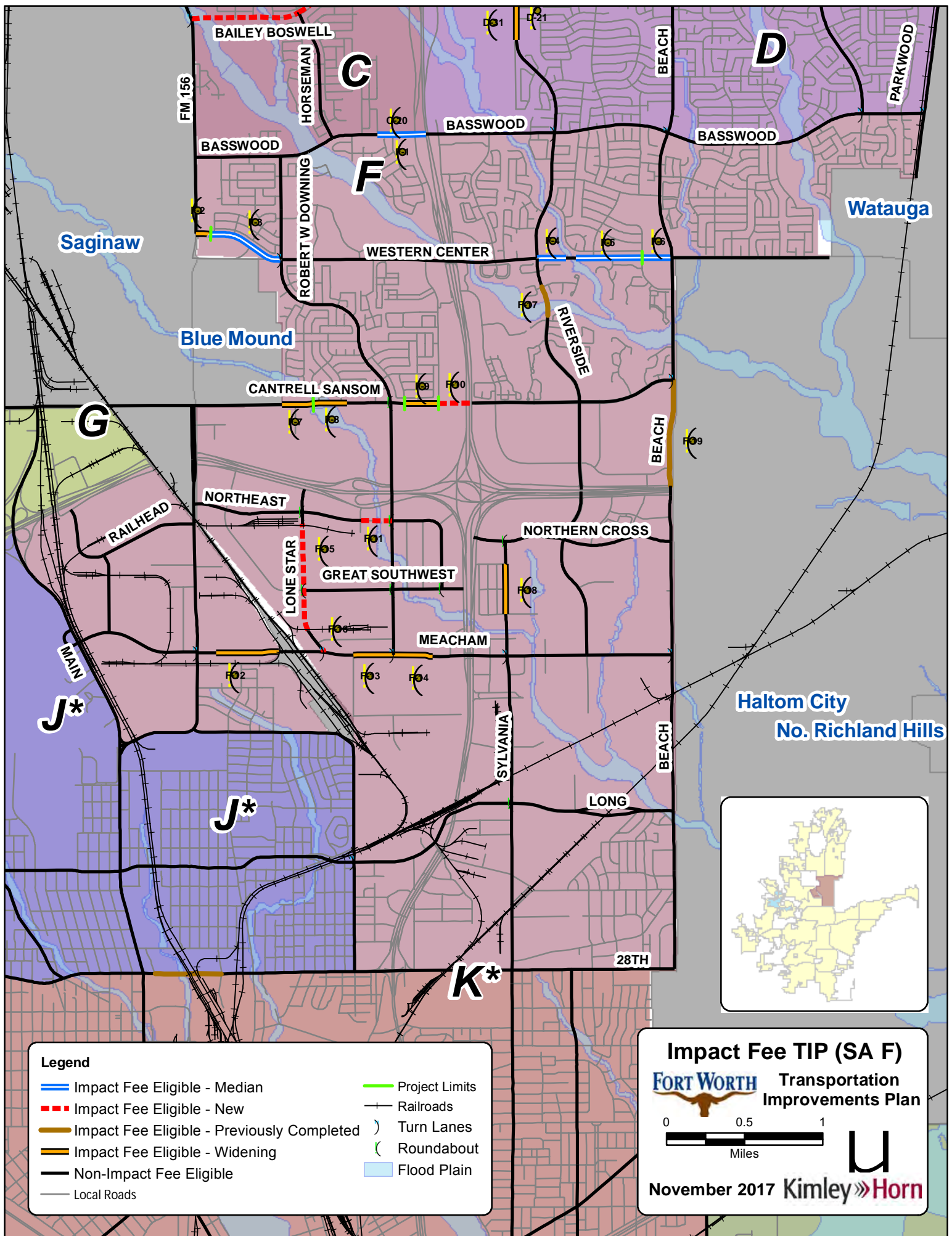




**Table 2.F. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area F**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA F	C-20, F-1	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Basswood	Candler to IH-35 W	0.31	50%
	F-2	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Western Center (1)	FM 156 to 430' E of FM 156	0.08	100%
	F-3	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (2)	430' E of FM 156 to Robert W Downing	0.51	100%
	F-4	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (3)	Riverside to 980' E of Riverside	0.19	100%
	F-5	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (4)	590' W of Bayberry to Spoonwood	0.42	100%
	F-6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (5)	Spoonwood to Beach	0.19	100%
	F-7	NCO-L2-T0-NTMS-P0-BOP (110)	Cantrell Sansom (1)	455' W of Nafex to 610' E of Nafex	0.20	100%
	F-8	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Cantrell Sansom (2)	610' E of Nafex to 190' E of Deerfoot	0.22	100%
	F-9	NCO-L2-T0-NTMS-P0-BOP (110)	Cantrell Sansom (3)	470' E of Mark IV to Old Denton	0.22	100%
	F-10	NCO-L2-T0-NTMS-P0-BOP (110)	Cantrell Sansom (4)	Old Denton to IH-35 W SBFR	0.19	100%
	F-11	CCO-L1-T0-TWLT-P0-BOP (80)	Northeast	Superior to Mark IV	0.20	100%
	F-12	CCO-L2-T0-TWLT-P0-BOP (110)	Meacham (1)	635' E of FM 156 to RR Bridge	0.40	100%
	F-13	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Meacham (2)	Deen to Mark IV	0.26	100%
	F-14	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Meacham (3)	Mark IV to 1335' E of Mark IV	0.25	100%
	F-15	CCO-L1-T0-TWLT-P0-BOP (80)	Lone Star (1)	400' S of Northeast to 555' N of Franklin	0.69	100%
	F-16	CCO-L1-T0-TWLT-P0-BOP (80)	Lone Star (2)	145' N of Meacham to Meacham	0.03	100%
	F-17	NCO (E)	Riverside (11)	Stone Creek to 180' N of Redwood Creek	0.19	100%
	F-18	CCO-L1-T0-TWLT-P0-BOP (80)	Sylvania	Melody Hills to Quorum	0.32	100%
	F-19	CCO-L3-T0-NTMS-P0-BLB (130)	Beach (13)	Fossil Creek to IH-820 WBFR	0.68	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Beach	Basswood	Retrofit	50%
		Roundabout	Cantrell Sansom	Mark IV	Retrofit	100%
		Turn Lane Improvements	US 377	Basswood	Retrofit	25%
		Turn Lane Improvements	Fossil Creek	Beach	Retrofit	50%
		Roundabout	Great Southwest	Lone Star	Rebuild	100%
		Roundabout	Great Southwest	Mark IV	Retrofit	100%
		Roundabout	Great Southwest	Northeast	Retrofit	100%
		Roundabout	Long	Sylvania	Retrofit	100%
		Turn Lane Improvements	Long	Deen	Retrofit	50%
		Turn Lane Improvements	Meacham	Sylvania	Retrofit	100%
		Turn Lane Improvements	Meacham	Mark IV	Rebuild	100%
		Turn Lane Improvements	Meacham	FM 156	Retrofit	100%
		Roundabout	Northeast	Mark IV	Rebuild	100%
		Roundabout	Northeast	Atlee	Retrofit	100%
		Roundabout	Northern Cross	Sylvania	Retrofit	100%
		Turn Lane Improvements	Park Vista	Basswood	Retrofit	50%
		Turn Lane Improvements	Riverside	Basswood	Retrofit	50%
		Turn Lane Improvements	Western Center	Robert W Downing	Retrofit	100%

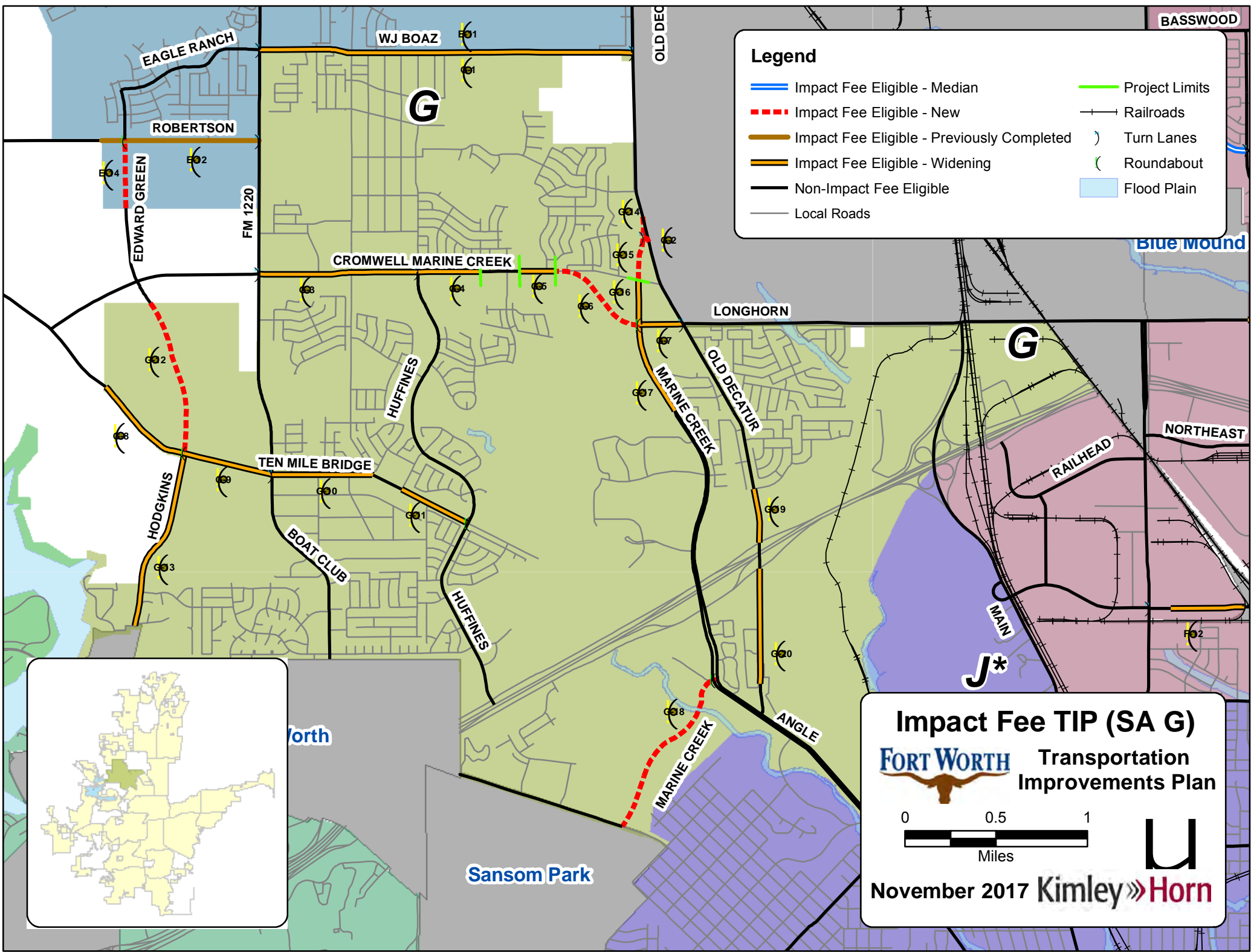
Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



**Table 2.G. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area G**

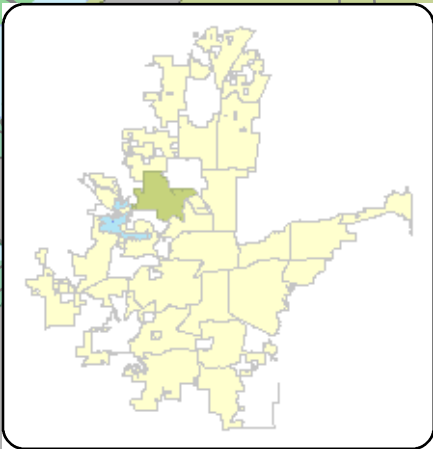
Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA G	E-11, G-1	NCO-L2-T0-NTMS-P0-BOP (110)	WJ Boaz	FM 1220 to Old Decatur Rd	2.05	50%
	G-2	NCO-L2-T0-TWLT-P0-BOP (110)	Old Decatur (1)	Marine Creek to Old Decatur	0.04	100%
	G-3	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (1)	FM 1220 to Huffines	0.87	100%
	G-4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (2)	Huffines to Chesterfield	0.34	100%
	G-5	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (3)	360' E of Crystal Lake to Stonewater Bend	0.20	100%
	G-6	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (4)	Stonewater Bend to Marine Creek	0.58	100%
	G-7	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Longhorn	Marine Creek to Old Decatur	0.24	100%
	G-8	NCO-L1-T0-TWLT-P0-BOP (80)	Ten Mile Bridge (1)	3,075' W of Hodgkins to Hodgkins	0.58	100%
	G-9	NCO-L2-T0-NTMS-P0-BOP (110)	Ten Mile Bridge (2)	Hodgkins to FM 1220	0.49	100%
	G-10	NCO-L1-T0-TWLT-P0-BOP (80)	Ten Mile Bridge (3)	FM 1220 to Bowman Roberts	0.55	100%
	G-11	NCO-L1-T0-TWLT-P0-BOP (80)	Ten Mile Bridge (4)	Westgate to Huffines	0.41	100%
	G-12	NCO-L1-T0-TWLT-P0-BOP (80)	Edward Geren (2)	4,570' N of Ten Mile Bridge to Ten Mile Bridge	0.87	100%
	G-13	NCO-L1-T0-TWLT-P0-BOP (80)	Hodgkins	Ten Mile Bridge to Hatch	1.00	100%
	G-14	NCO-L2-T0-NTMS-P0-BOP (110)	Marine Creek (1)	Old Decatur to 620' S of Old Decatur	0.12	100%
	G-15	NCO-L2-T0-NTMS-P0-BOP (110)	Marine Creek (2)	620' S of Old Decatur Rd to Cromwell Marine Creek	0.23	100%
	G-16	NCO-L2-T0-NTMS-P0-BOP (110)	Marine Creek (3)	Cromwell Marine Creek to Longhorn	0.25	100%
	G-17	CCO (E)	Marine Creek (4)	Longhorn to 410' S of Goodland	0.52	100%
	G-18	NCO-L1-T0-TWLT-P0-BOP (80)	Marine Creek (5)	Angle to FM 1220	1.01	100%
	G-19	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Old Decatur (2)	River Rock to IH-820 WBFR	0.30	100%
	G-20	NCO-L2-T0-NTMS-P0-BOP (110)	Old Decatur (3)	IH-820 EBFR to 890' N Of Angle	0.63	100%
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Cromwell Maine Creek	FM 1220	Rebuild	50%
		Turn Lane Improvements	Cromwell Marine Creek	Huffines	Rebuild	100%
		Turn Lane Improvements	Longhorn	Old Decatur	Rebuild	75%
		Roundabout	Longhorn	Marine Creek	Rebuild	100%
		Turn Lane Improvements	Marine Creek	Old Decatur	New	100%
		Roundabout	Marine Creek	Angle	Rebuild	100%
		Turn Lane Improvements	Robertson	FM 1220	Retrofit	50%
		Roundabout	Ten Mile Bridge	Huffines	Rebuild	100%
		Turn Lane Improvements	Ten Mile Bridge	FM 1220	Rebuild	100%
		Roundabout	Ten Mile Bridge	Hodgkins	Rebuild	100%
		Turn Lane Improvements	WJ Boaz	FM 1220	Rebuild	25%
		Turn Lane Improvements	WJ Boaz	Old Decatur	Rebuild	25%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



**Legend**

Impact Fee Eligible - Median	Project Limits
Impact Fee Eligible - New	Railroads
Impact Fee Eligible - Previously Completed	Turn Lanes
Impact Fee Eligible - Widening	Roundabout
Non-Impact Fee Eligible	Flood Plain
Local Roads	



**Impact Fee TIP (SA G)**

**FORT WORTH** Transportation Improvements Plan

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Miles

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**Table 2.L. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area L**

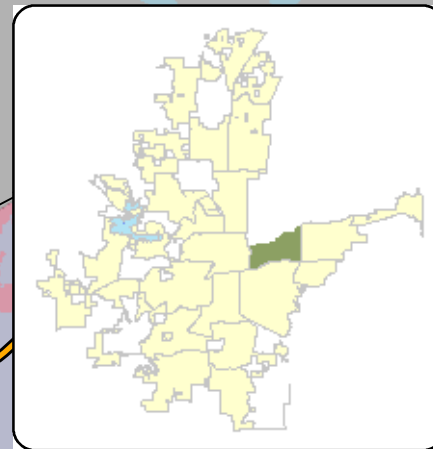
Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
S A L	L-1	NCO (E)	1st (1)	Beach to 1,345' E of Beach	0.25	100%
	L-2	NCO (E)	1st (2)	1,345' E of Beach to 5,290' E of Beach	0.75	100%
	L-3	NCO (E)	1st (3)	3,630' W of Oakland to Oakland	0.69	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	1st	Beach	Retrofit	50%
		Turn Lane Improvements	Bridge	Bridgewood	Retrofit	100%
		Turn Lane Improvements	Randol Mill	Bridgewood	Retrofit	100%
		Turn Lane Improvements	Randol Mill	Woodhaven	Retrofit	100%
		Roundabout	1st	Oakland	Retrofit	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



# Legend

- Impact Fee Eligible - Median
- Impact Fee Eligible - New
- Impact Fee Eligible - Previously Completed
- Impact Fee Eligible - Widening
- Non-Impact Fee Eligible
- Local Roads
- Project Limits
- Railroads
- Turn Lanes
- Roundabout
- Flood Plain

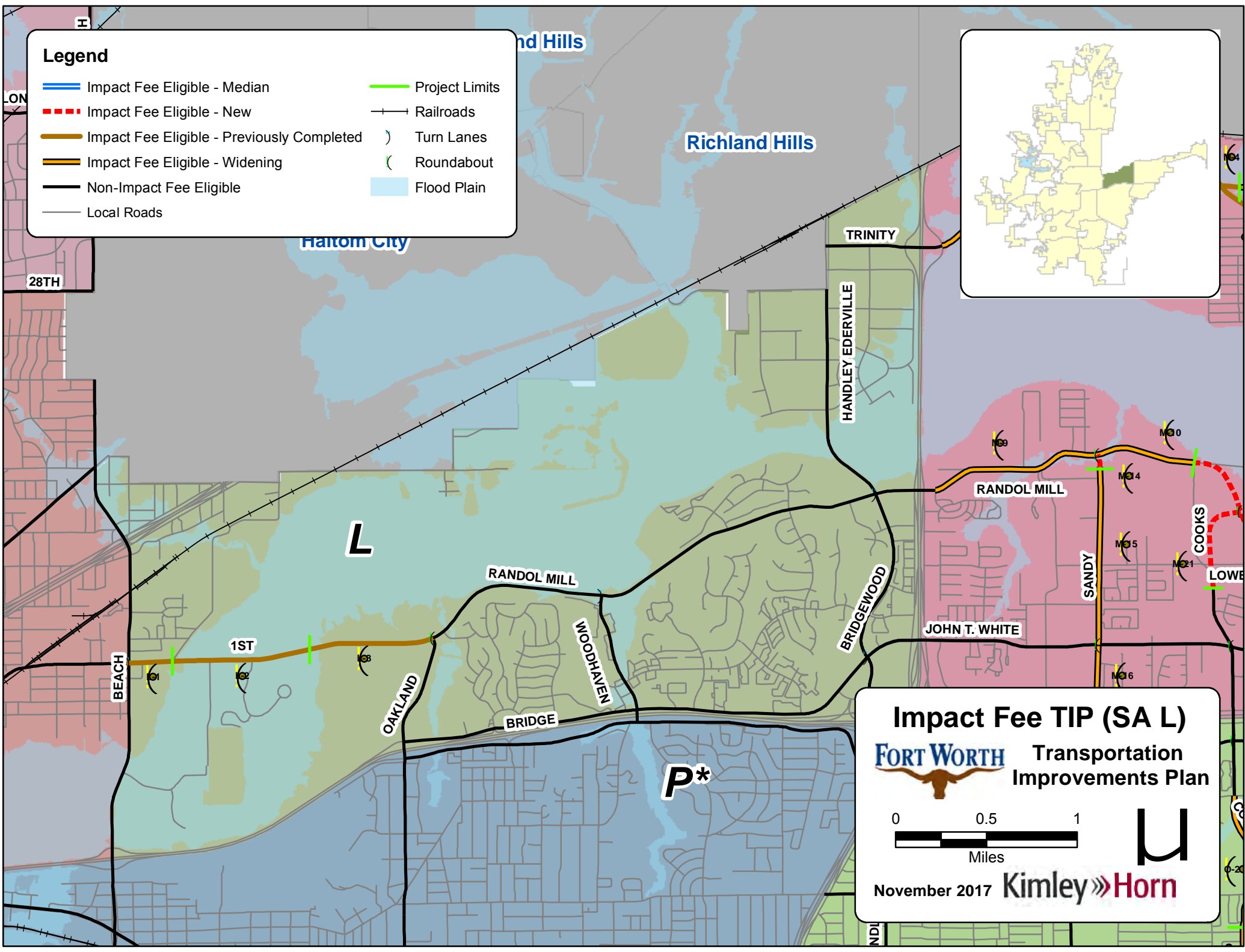


**Impact Fee TIP (SA L)**

**FORT WORTH** Transportation Improvements Plan

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Miles

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**Table 2.M. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area M**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA M	M-1	CCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (1)	SH 10 to Raider	0.28	100%
	M-2	CMU-L2-T0-TWLT-P0-BLC (110)	Trinity (1)	IH-820 NBFR to 1,550' W of Precinct Line	1.35	100%
	M-3	CMU-L2-T0-NTMS-P0-BLC (110)	Trinity (2)	1,550' W of Precinct Line to Precinct Line	0.29	100%
	M-4	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (3)	Precinct Line to 545' E of Precinct Line	0.10	100%
	M-5	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (4)	545' E of Precinct Line to Norwood	0.75	100%
	M-6	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (5)	Norwood to 1,500' E of Norwood	0.28	100%
	M-7	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (6)	1,565' W of Bell Spur to Bell Spur	0.30	100%
	M-8	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (7)	Bell Spur to 2,950' E of Bell Spur	0.56	100%
	M-9	NCO-L1-T0-TWLT-P0-BLC (80)	Randol Mill (1)	Stoneview to Sandy	0.95	100%
	M-10	NCO-L1-T0-TWLT-P0-BLC (80)	Randol Mill (2)	Sandy to Cooks	0.55	100%
	M-11	NCO-L2-T0-NTMS-P0-BLS (110)	Randol Mill (3)	Cooks to Lowery	1.02	100%
	M-12	NCO-L2-T0-NTMS-P0-BLS (110)	Randol Mill (4)	Lowery to 880' E of Lowery	0.17	100%
	M-13	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)	Randol Mill (5)	880' E of Lowery to Racquet Club	0.25	100%
	M-14	NCO-L1-T0-TWLT-P0-BOP (80)	Sandy (1)	Randol Mill to 370' S of Randol Mill	0.07	100%
	M-15	NCO-L1-T0-TWLT-P0-BOP (80)	Sandy (2)	370' S of Randol Mill to John T White	0.98	100%
	M-16	NCO-L2-T0-TWLT-P0-BOP (110)	Sandy (3)	John T. White to IH-30	0.45	100%
	M-17	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (1)	1825' N of Trinity to Trinity	0.35	100%
	M-18	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (2)	Trinity to 1,955' S of Trinity	0.37	100%
	M-19	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (3)	1,955' S of Trinity to Randol Mill	1.36	100%
	M-20	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (4)	Randol Mill (Existing) to 1,815' S of Randol Mill (Existing)	0.34	100%
	M-21	NCO-L1-T0-TWLT-P0-BOP (80)	Cooks (1)	1,815' S of Randol Mill to 690' S of Lowery	0.54	100%
	M-22	CCO-L1-T0-TWLT-P0-BOP (80)	Norwood (1)	SH 10 to Railroad	0.24	100%
	M-23	CCO-L1-T0-TWLT-P0-BOP (80)	Norwood (2)	Railroad to Trinity	0.23	100%
	M-24	NCO-L2-T0-NTMS-P0-BOP (110)	Greenbelt Rd	Trinity to 8885' S of Trinity	1.68	100%
Intersection Improvements	Type		Road A	Road B	Status	% In Service Area
	Roundabout		John T White	Cooks	Retrofit	100%
	Turn Lane Improvements		John T White	Randol Mill	Retrofit	100%
	Roundabout		John T White	Sandy	Rebuild	100%
	Roundabout		Precinct Line	Randol Mill	New	100%
	Roundabout		Randol Mill	Sandy	Rebuild	100%
	Turn Lane Improvements		Trinity	Bell Spur	Rebuild	100%
	Turn Lane Improvements		Trinity	Norwood	Rebuild	100%

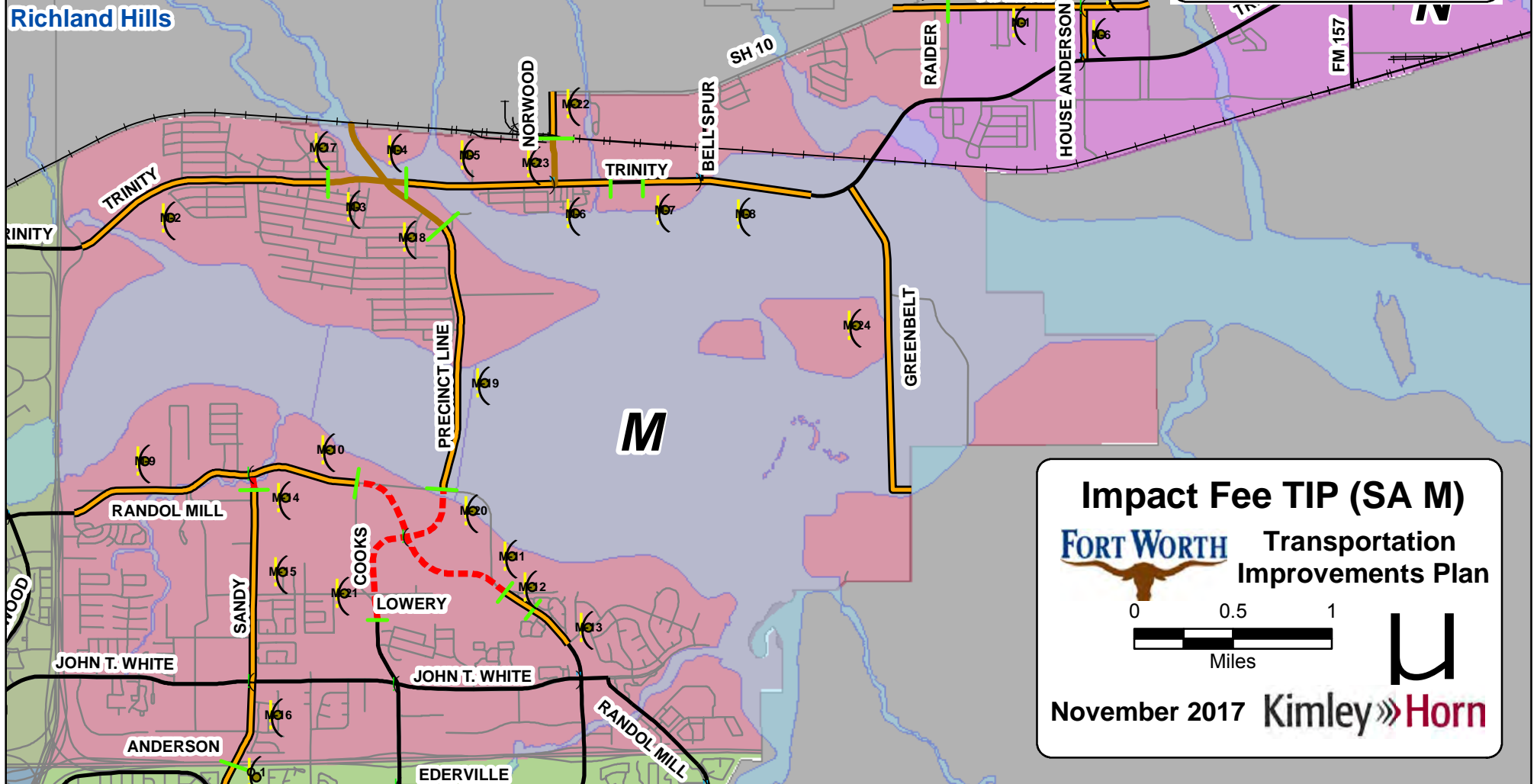
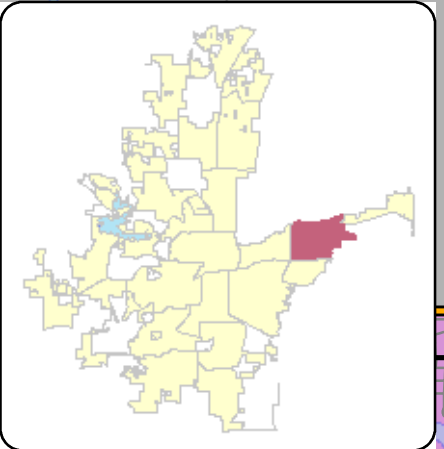
Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.

## Legend

- |  |  |
|--|--|
|  Impact Fee Eligible - Median               |  Project Limits |
|  Impact Fee Eligible - New                  |  Railroads      |
|  Impact Fee Eligible - Previously Completed |  Turn Lanes     |
|  Impact Fee Eligible - Widening             |  Roundabout     |
|  Non-Impact Fee Eligible                    |  Floodway       |
|  Local Roads                                |  |

Richland Hills

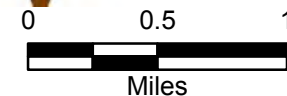
Bedford



## Impact Fee TIP (SA M)

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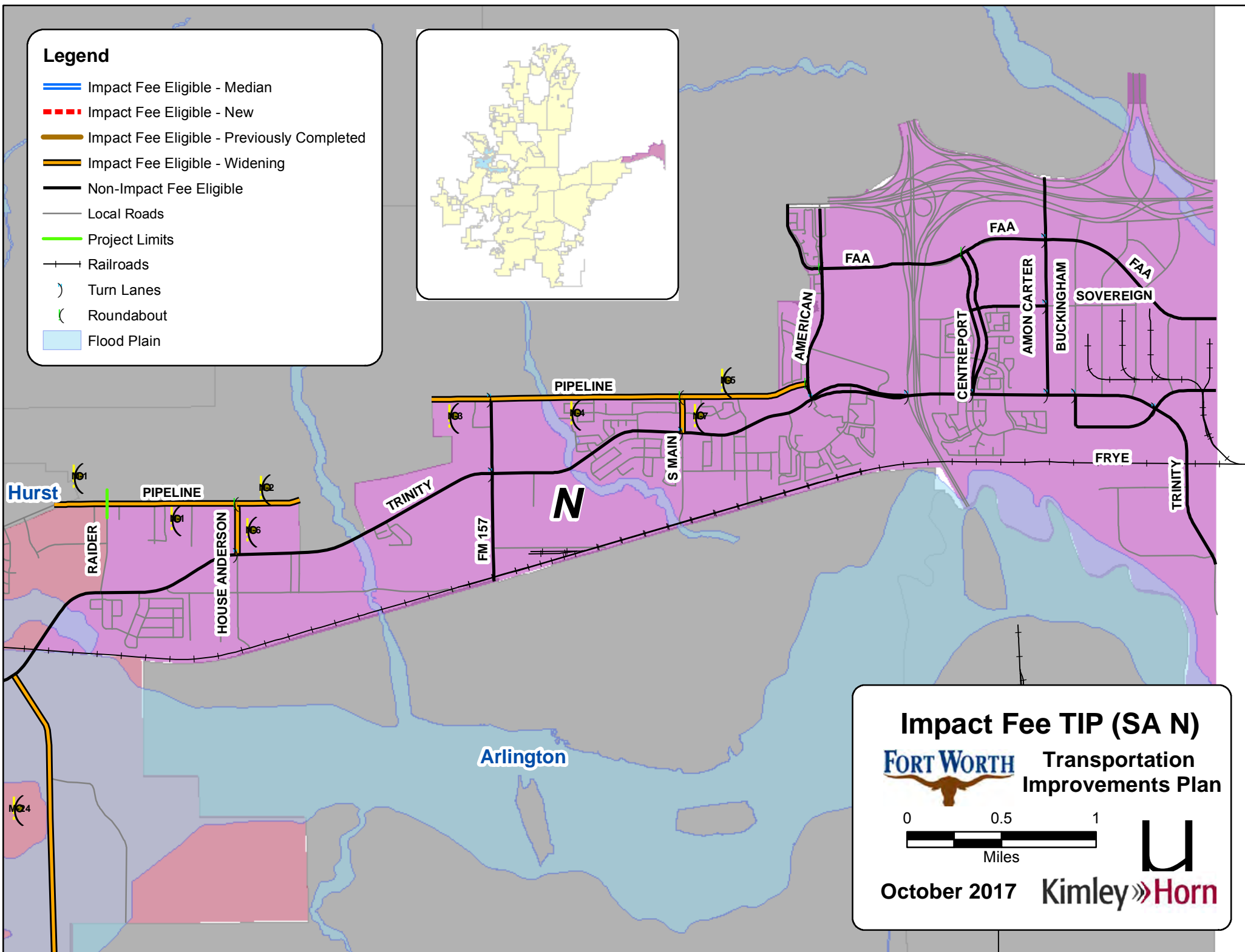
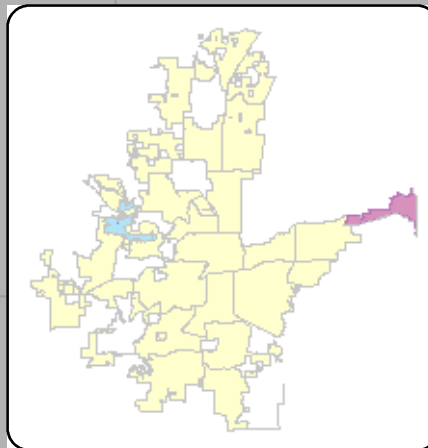
**Table 2.N. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area N**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA N	N-1	CCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (2)	Raider to House Anderson	0.69	100%
	N-2	CCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (3)	House Anderson to 1,755' E of House Anderson	0.33	100%
	N-3	NCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (4)	1,665' W of FM 157 to FM 157	0.32	100%
	N-4	NCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (5)	FM 157 to S. Main	1.01	100%
	N-5	NCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (6)	S. Main to American	0.68	100%
	N-6	NCO-L1-T0-TWLT-P0-BOP (80)	House Anderson	Pipeline to Trinity	0.27	100%
	N-7	NCO-L1-T0-TWLT-P0-BOP (80)	S. Main	Pipeline to Trinity	0.19	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Roundabout	FAA	American	Retrofit	100%
		Turn Lane Improvements	FAA	Amon Carter	Retrofit	100%
		Roundabout	FAA	Centreport	Retrofit	100%
		Turn Lane Improvements	Pipeline	FM 157	Rebuild	100%
		Roundabout	Pipeline	S. Main	Rebuild	100%
		Roundabout	Pipeline	American	Rebuild	100%
		Roundabout	Pipeline	House Anderson	Rebuild	100%
		Turn Lane Improvements	Sovereign	Amon Carter	Retrofit	100%
		Turn Lane Improvements	Trinity	SH 360 SBFR	Retrofit	100%
		Turn Lane Improvements	Trinity	House Anderson	Rebuild	100%
		Turn Lane Improvements	Trinity	FM 157	Retrofit	100%
		Turn Lane Improvements	Trinity	Buckingham	Retrofit	100%
		Turn Lane Improvements	Trinity	Frye	Retrofit	100%
		Turn Lane Improvements	Trinity	S. Main	Rebuild	100%
		Turn Lane Improvements	Trinity	American	Retrofit	100%
		Turn Lane Improvements	Trinity	Centreport	Retrofit	100%
		Turn Lane Improvements	Trinity	Amon Carter	Retrofit	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.

## Legend

- ▬▬▬ Impact Fee Eligible - Median
- - - Impact Fee Eligible - New
- ▬▬▬ Impact Fee Eligible - Previously Completed
- ▬▬▬ Impact Fee Eligible - Widening
- ▬▬▬ Non-Impact Fee Eligible
- ▬▬▬ Local Roads
- ▬▬▬ Project Limits
- + + + Railroads
- ) Turn Lanes
- ( Roundabout
- Flood Plain



## Impact Fee TIP (SA N)



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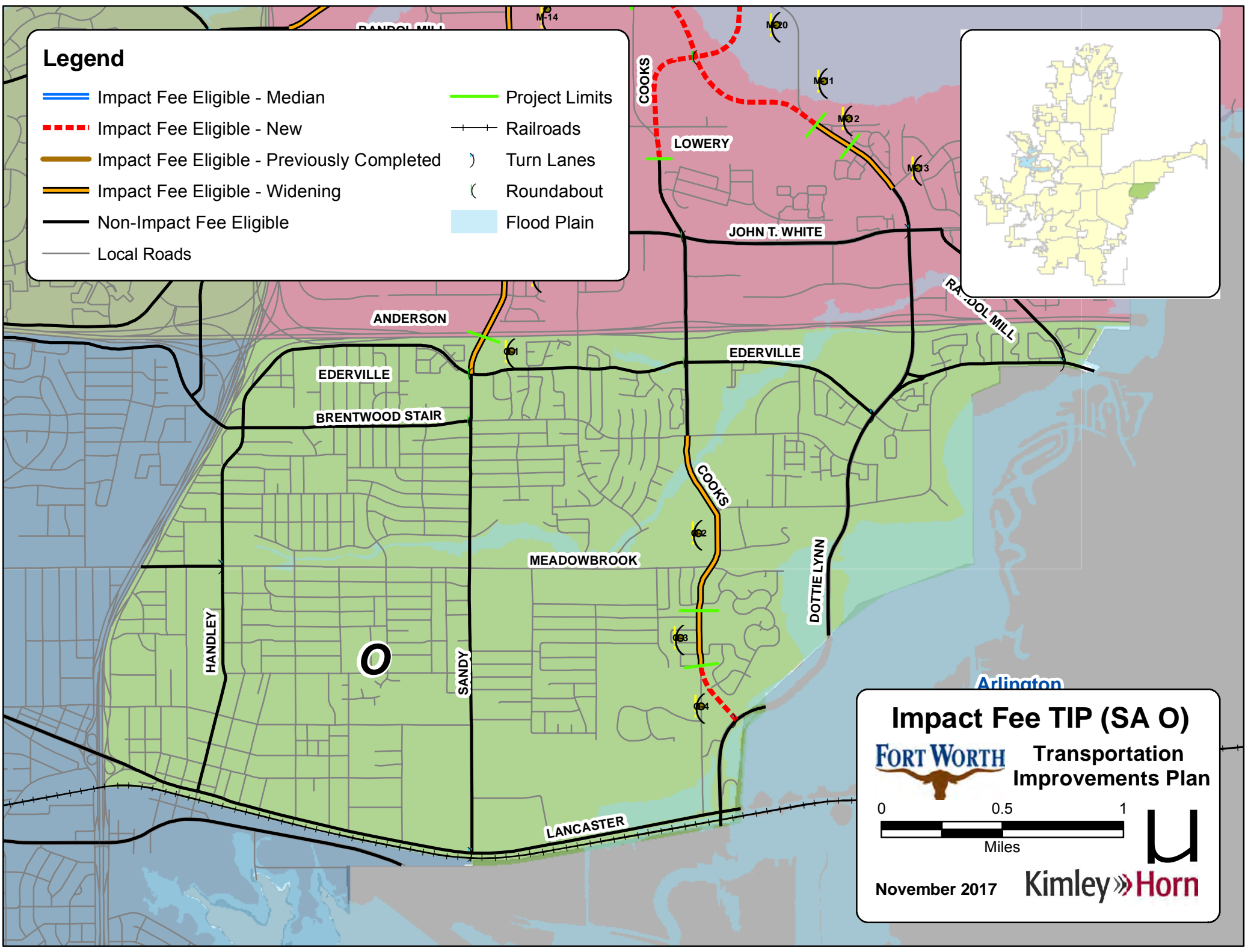
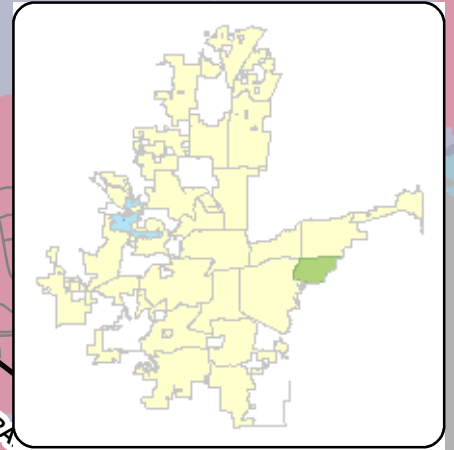
**Table 2.O. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area O**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA O	O-1	NCO-L2-T0-TWLT-P0-BOP (110)	Sandy (4)	IH-30 to Ederville	0.16	100%
	O-2	NCO-L2-T0-NTMS-P0-BOP (110)	Cooks (2)	Brentwood Stair to 140' N of Bermejo	0.78	100%
	O-3	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Cooks (3)	140' N of Bermejo to Maegan	0.23	100%
	O-4	NCO-L2-T0-NTMS-P0-BOP (110)	Cooks (4)	Maegan to Dottie Lynn	0.27	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Roundabout	Brentwood Stair	Sandy	Retrofit	100%
		Turn Lane Improvements	Dottie Lynn	Cooks	Rebuild	100%
		Roundabout	Ederville	Cooks	Retrofit	100%
		Turn Lane Improvements	Ederville	Eastchase	Retrofit	100%
		Roundabout	Ederville	Sandy	Rebuild	100%
		Turn Lane Improvements	Lancaster	Sandy	Retrofit	100%
		Turn Lane Improvements	Meadowbrook	Handley	Retrofit	100%
		Turn Lane Improvements	Meadowbrook	Randol Mill	Retrofit	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.

# Legend

- Impact Fee Eligible - Median
- Impact Fee Eligible - New
- Impact Fee Eligible - Previously Completed
- Impact Fee Eligible - Widening
- Non-Impact Fee Eligible
- Local Roads
- Project Limits
- Railroads
- Turn Lanes
- Roundabout
- Flood Plain



**Impact Fee TIP (SA O)**

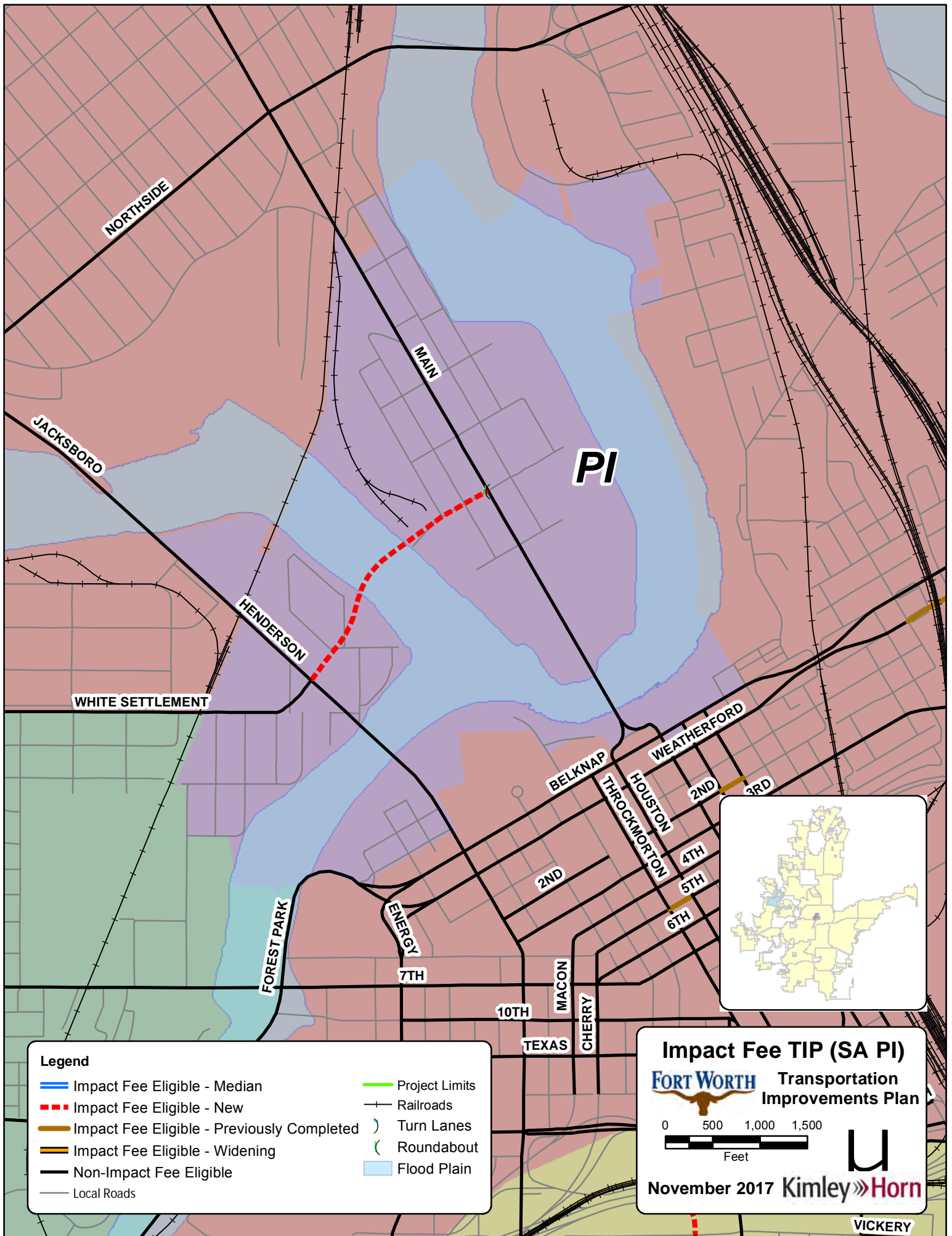
**FORT WORTH** Transportation Improvements Plan

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**Table 2.PI. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area PI**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA PI	PI-1	CMU-L2-TO-UNDIV-PO-BLC (110)	White Settlement	Henderson to Main	0.54	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Roundabout	White Settlement	Main	Retrofit	100%



**Table 2.S. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area S**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA S	S-1	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (1)	4,220' W of Silver Creek (Existing) to Silver Creek (Existing)	0.80	100%
	S-2	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (2)	Silver Creek (Future) to 595' S of Verna	0.81	100%
	S-3	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (3)	595' S of Verna to Academy (Future)	0.16	100%
	S-4	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (4)	Academy (Future) to 1465 feet E of Academy (Future)	0.28	100%
	S-5	NCO (E)	Silver Creek (5)	1,465' E of Academy (Future) to IH-820	0.34	100%
	S-6	SYS-L3-T0-NTMS-P0-BLS (130) (W)	White Settlement (1)	600' E of Haywire Ranch to Silver Ridge	1.14	50%
	S-7	SYS-L3-T0-NTMS-P0-BLS (130) (W)	White Settlement (2)	Silver Ridge to 890' E of Silver Ridge	0.17	50%
	S-8	SYS-L3-T0-NTMS-P0-BLS (130) (W)	White Settlement (3)	890' E of Silver Ridge to Chapel Creek	0.75	100%
	S-9	SYS-L3-T0-NTMW-P0-BLS (130) (1/3)	White Settlement (4)	Chapel Creek to Academy	0.50	100%
	S-10	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	White Settlement (5)	Academy to Legacy	0.39	100%
	S-11	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	White Settlement (6)	Legacy to White Settlement	0.12	100%
	S-12	NCO-L2-T0-NTMS-P0-BOP (110)	Westpoint (1)	3,525' W of Basset Locke to Basset Locke	0.67	100%
	S-13	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Westpoint (2)	Basset Locke to American Flyer	0.30	100%
	S-14	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Westpoint (3)	Academy to IH-820 SBFR	0.69	100%
	S-15	NCO-L2-T0-NTMS-P0-BOP (110)	Old Weatherford (3)	3,510' W of Hickory Bend to 100' E of Hickory Bend	0.68	100%
	S-16	NCO-L2-T0-NTMS-P0-BOP (110)	Old Weatherford (4)	100' E of Hickory Bend to Chapel Creek	0.49	100%
	S-17	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Amber Ridge (1)	Chapel Creek to Wind Star	0.26	100%
	S-18	NCO-L2-T0-NTMS-P0-BOP (110)	Amber Ridge (2)	Wind Star to Academy (Future)	0.24	100%
	S-19	NCO-L1-T0-TWLT-P0-BOP (80)	Amber Ridge (3)	Academy (Future) to 920' E of Academy (Future)	0.17	100%
	S-20	CCO-L1-T0-TWLT-P0-BOP (80)	Amber Ridge (4)	920' E of Academy (Future) to Settlement Plaza (Future)	0.12	100%
	S-21	CCO-L1-T0-TWLT-P0-BOP (80)	Amber Ridge (5)	Settlement Plaza (Future) to IH 820 SBFR	0.49	100%
	S-22	NCO-L1-T0-TWLT-P0-BOP (80)	Chapin (1)	3,155' W of Whitetail Chase to 1,370' W of Whitetail Chase	0.34	100%
	S-23	NCO-L1-T0-TWLT-P0-BOP (80)	Chapin (2)	1,370' W of Whitetail Chase to 130' W of Whitetail Chase	0.23	100%
	S-24	NCO-L2-T0-NTMS-P0-BOP (110)	WR #7	3,635' N of Old Weatherford to Old Weatherford	0.69	100%
	S-25	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Ridge	135' S of Broken Arrow to 110' N of Fandor	0.51	100%
	S-26	NCO (E)	Chapel Creek	Chapin to IH-30	0.17	100%
	S-27	NCO-L2-T0-NTMS-P0-BOP (110)	Academy (1)	Silver Creek (Future) to 125' N of Sparrow Hawk	0.57	100%
	S-28	NCO-L2-T0-NTMS-P0-BOP (110)	Academy (2)	300' S of Westpoint to Amber Ridge (Future)	0.36	100%
	S-29	CCO-L2-T0-NTMS-P0-BOP (110)	Academy (3)	Amber Ridge (Future) to IH-30 WBFR	0.51	100%
	S-30	NCO-L1-T0-TWLT-P0-BOP (80)	Settlement Plaza	Westpoint to Amber Ridge (Future)	0.26	100%
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area
		Roundabout	Amber Ridge	Academy	New	100%
		Roundabout	Old Weatherford	Chapel Creek	Rebuild	100%
		Roundabout	Amber Ridge	Settlement Plaza	New	100%
		Turn Lane Improvements	Chapin	Chapel Creek	Retrofit	100%
		Turn Lane Improvements	Clifford	White Settlement	Rebuild	100%
		Roundabout	Legacy	Academy	Rebuild	100%
		Roundabout	Silver Creek	Academy	New	100%
		Turn Lane Improvements	Westpoint	Academy	Rebuild	100%
		Roundabout	Westpoint	American Flyer	Rebuild	100%
		Roundabout	Westpoint	Chapel Creek	Rebuild	100%
		Turn Lane Improvements	Westpoint	Settlement Plaza	Rebuild	100%
		Turn Lane Improvements	White Settlement	Academy	Rebuild	100%
		Turn Lane Improvements	White Settlement	Chapel Creek	Rebuild	100%
		Turn Lane Improvements	White Settlement	Legacy	Rebuild	100%
		Turn Lane Improvements	White Settlement	Silver Ridge	Rebuild	50%

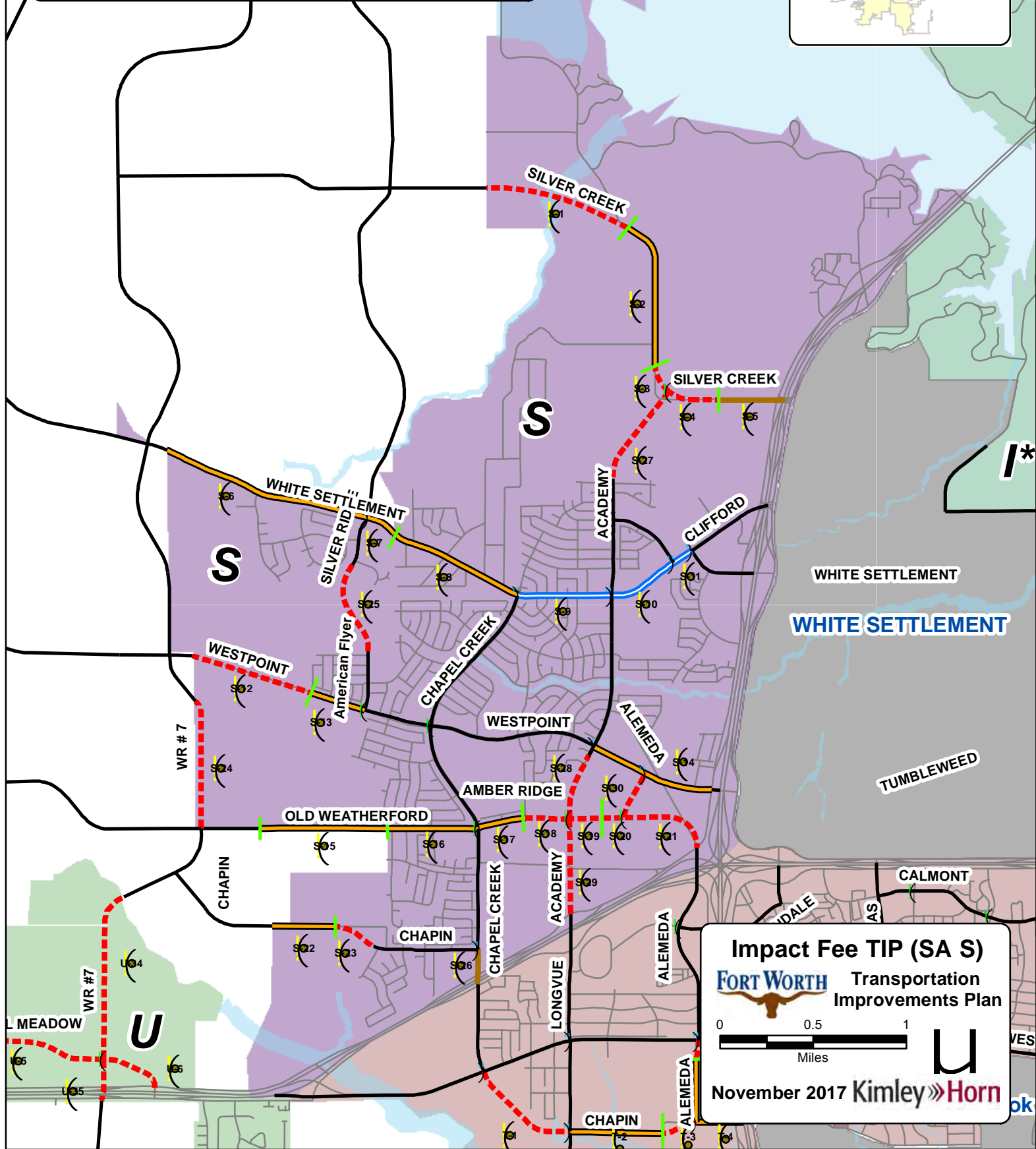
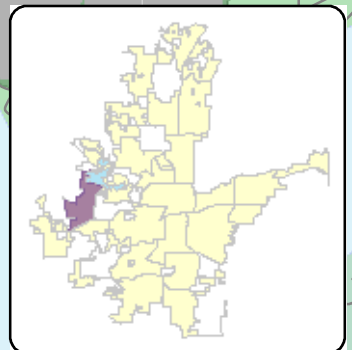
Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



# Legend

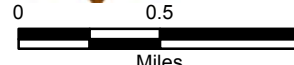
- Impact Fee Eligible - Median
- Impact Fee Eligible - New
- Impact Fee Eligible - Previously Completed
- Impact Fee Eligible - Widening
- Non-Impact Fee Eligible
- Local Roads
- Project Limits
- Railroads
- Turn Lanes
- Roundabout
- Flood Plain

Lakeside



## Impact Fee TIP (SA S)

**FORT WORTH** Transportation Improvements Plan



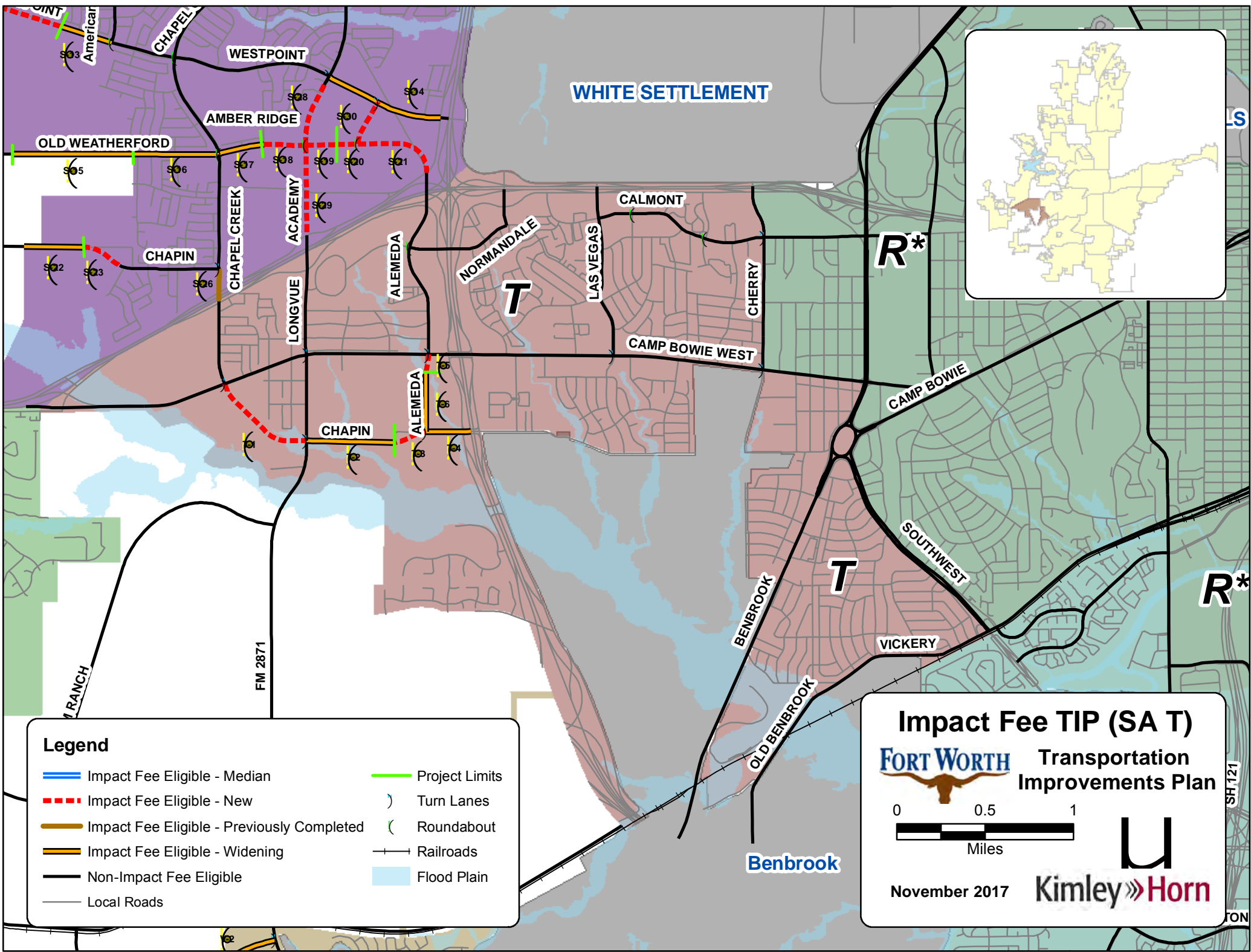
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**Table 2.T. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area T**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA T	T-1	NCO-L1-T0-TWLT-P0-BOP (80)	Chapin (3)	Camp Bowie to Longvue	0.61	100%
	T-2	NCO-L2-T0-NTMS-P0-BOP (110)	Chapin (4)	Longvue to 965' W of Alameda	0.51	100%
	T-3	NCO-L2-T0-NTMS-P0-BOP (110)	Chapin (5)	965' W of Alameda to Alameda	0.18	100%
	T-4	CCO-L2-T0-TWLT-P0-BOP (110)	Chapin (6)	Alameda to IH-820	0.25	100%
	T-5	CCO-L1-T0-TWLT-P0-BOP (80)	Alameda (1)	Camp Bowie West to 545' S of Camp Bowie West	0.10	100%
	T-6	CCO-L1-T0-TWLT-P0-BOP (80)	Alameda (2)	545' S of Camp Bowie West to Chapin	0.34	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Calmont	Cherry	Retrofit	50%
		Roundabout	Calmont	Shenandoah Rd	Retrofit	100%
		Roundabout	Calmont	Laredo Dr	Retrofit	100%
		Turn Lane Improvements	Camp Bowie West	Alameda	Rebuild	100%
		Turn Lane Improvements	Camp Bowie West	Chapel Creek	Rebuild	100%
		Turn Lane Improvements	Camp Bowie West	Cherry	Retrofit	75%
		Turn Lane Improvements	Camp Bowie West	Las Vegas	Retrofit	100%
		Turn Lane Improvements	Camp Bowie West	Longvue	Retrofit	100%
		Turn Lane Improvements	Chapin	Alameda	Rebuild	100%
		Turn Lane Improvements	Chapin	Longvue	Rebuild	100%
		Roundabout	Normandale	Alameda	Retrofit	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



**Legend**

- |  |                |
|--|----------------|
| Impact Fee Eligible - Median               | Project Limits |
| Impact Fee Eligible - New                  | Turn Lanes     |
| Impact Fee Eligible - Previously Completed | Roundabout     |
| Impact Fee Eligible - Widening             | Railroads      |
| Non-Impact Fee Eligible                    | Flood Plain    |
| Local Roads                                |                |

**Impact Fee TIP (SA T)**

**FORT WORTH** Transportation Improvements Plan

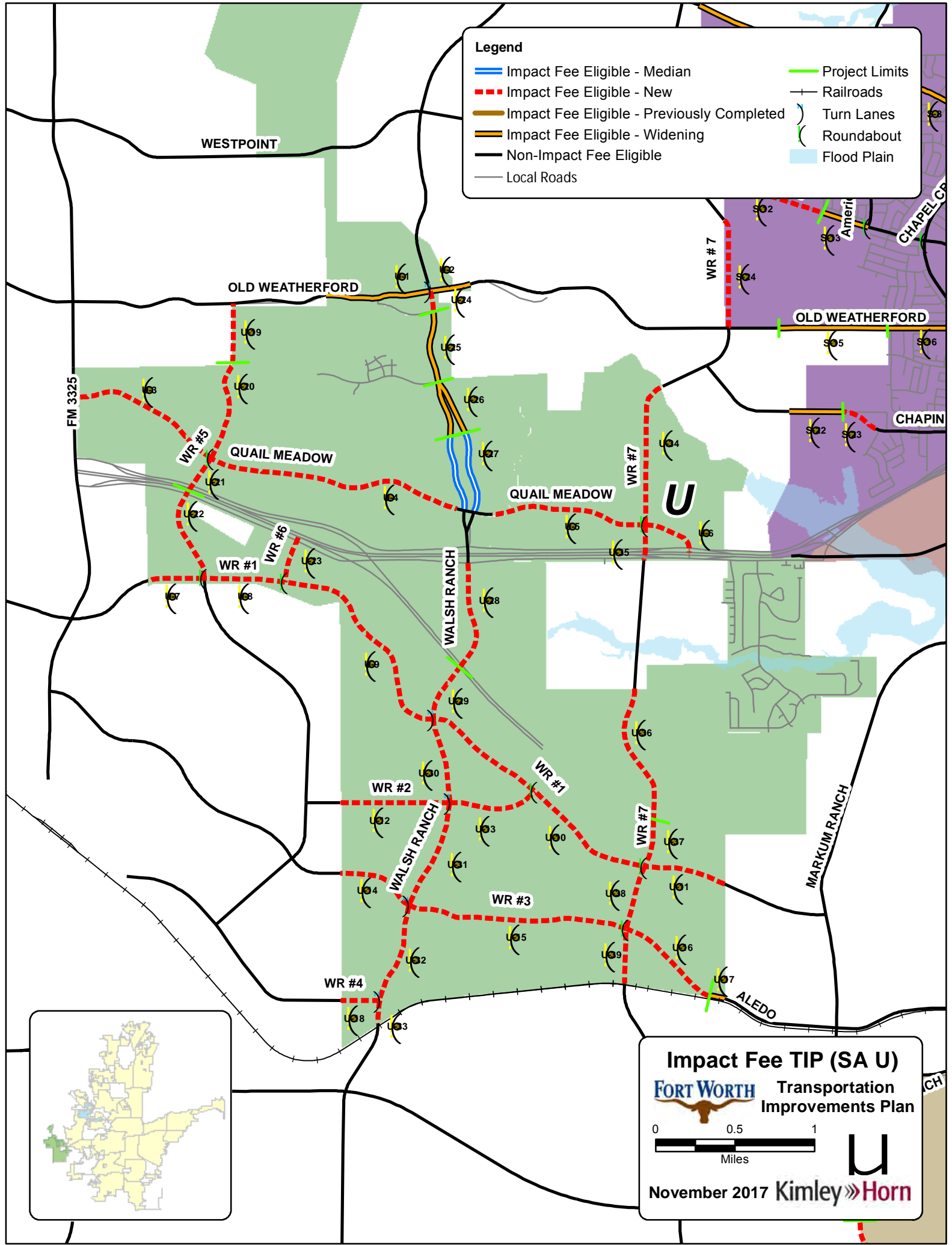
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November 2017 **Kimley»Horn**

**Table 2.U. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area U**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA U	U-1	NCO-L2-T0-TWLT-P0-BOP (110)	Old Weatherford (1)	3,500' W of Walsh Ranch to Walsh Ranch	0.66	100%
	U-2	NCO-L2-T0-TWLT-P0-BOP (110)	Old Weatherford (2)	Walsh Ranch to 1,355' E of Walsh Ranch	0.26	100%
	U-3	CCO-L2-T0-TWLT-P0-BOP (110)	Quail Meadow (1)	FM 3325 to WR #5	1.01	100%
	U-4	CCO-L2-T0-TWLT-P0-BOP (110)	Quail Meadow (2)	WR #5 to 240' W of Walsh Ranch	1.62	100%
	U-5	CCO-L2-T0-TWLT-P0-BOP (110)	Quail Meadow (3)	610' E of Walsh Ranch to WR #7	0.99	100%
	U-6	CCO-L2-T0-TWLT-P0-BOP (110)	Quail Meadow (4)	WR #7 to IH-30	0.36	100%
	U-7	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (1)	1,880' W of WR #5 to WR #5	0.36	100%
	U-8	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (2)	WR #5 to WR #6	0.51	100%
	U-9	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (3)	WR #6 to Walsh Ranch	1.41	100%
	U-10	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (4)	Walsh Ranch to WR #7	1.67	100%
	U-11	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (5)	WR #7 to 2745' E of WR #7	0.52	100%
	U-12	NCO-L2-T0-TWLT-P0-BOP (110)	WR #2 (1)	3,645' W of Walsh Ranch to Walsh Ranch	0.69	100%
	U-13	NCO-L2-T0-TWLT-P0-BOP (110)	WR #2 (2)	Walsh Ranch to WR #1	0.57	100%
	U-14	NCO-L2-T0-TWLT-P0-BOP (110)	WR #3 (1)	2,685' W of Walsh Ranch to Walsh Ranch	0.51	100%
	U-15	NCO-L2-T0-TWLT-P0-BOP (110)	WR #3 (2)	Walsh Ranch to WR #7	1.39	100%
	U-16	NCO-L2-T0-TWLT-P0-BOP (110)	WR #3 (3)	WR #7 to 3,590' E of WR #7	0.68	100%
	U-17	NCO-L2-T0-TWLT-P0-BOP (110)	Aledo Rd	WR #3 to 515' E of WR #3	0.10	100%
	U-18	NCO-L1-T0-TWLT-P0-BOP (80)	WR #4	1,295' W of Walsh Ranch to Walsh Ranch	0.25	100%
	U-19	CCO-L2-T0-TWLT-P0-BOP (110)	WR #5 (1)	Old Weatherford to 1,960' S of Old Weatherford	0.37	100%
	U-20	CCO-L2-T0-TWLT-P0-BOP (110)	WR #5 (2)	1,960' S of Old Weatherford to Quail Meadow	0.64	100%
	U-21	CCO-L2-T0-TWLT-P0-BOP (110)	WR #5 (3)	Quail Meadow to IH-20	0.25	100%
	U-22	CCO-L2-T0-TWLT-P0-BOP (110)	WR #5 (4)	IH-20 to WR #1	0.61	100%
	U-23	CCO-L1-T0-TWLT-P0-BOP (80)	WR #6	IH-20 to WR #1	0.30	100%
	U-24	NCO-L3-T0-TWLT-P0-BOP (130) (W)	Walsh Ranch (1)	Old Weatherford to Marys Ridge	0.13	100%
	U-25	NCO-L3-T0-TWLT-P0-BOP (130) (W) (1/2)	Walsh Ranch (2)	Marys Ridge to Walsh	0.45	100%
	U-26	NCO-L3-T0-TWLT-P0-BOP (130) (1/3)	Walsh Ranch (3)	Walsh to Walsh Creek	0.36	100%
	U-27	NCO-L3-T0-TWLT-P0-BOP (130) (1/3)	Walsh Ranch (4)	Walsh Creek to Quail Meadow	0.50	100%
	U-28	CCO-L3-T0-TWLT-P0-BOP (130) (W)	Walsh Ranch (5)	IH-30 EBFR to IH-20	0.69	100%
	U-29	CCO-L3-T0-TWLT-P0-BOP (130) (W)	Walsh Ranch (6)	IH-20 to WR #1	0.37	100%
	U-30	NCO-L3-T0-TWLT-P0-BOP (130) (W)	Walsh Ranch (7)	WR #1 to WR #2	0.54	100%
	U-31	NCO-L3-T0-TWLT-P0-BOP (130) (W)	Walsh Ranch (8)	WR #2 to WR #3	0.70	100%
	U-32	NCO-L3-T0-TWLT-P0-BOP (130) (W)	Walsh Ranch (9)	WR #3 to WR #4	0.64	100%
	U-33	NCO-L3-T0-TWLT-P0-BOP (130) (W)	Walsh Ranch (10)	WR #4 to 760' S of WR #4	0.14	100%
	U-34	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (1)	4,830' N of Quail Meadow to Quail Meadow	0.92	100%
	U-35	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (2)	Quail Meadow to IH-30 EBFR	0.22	100%
	U-36	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (3)	4,680' N of IH-20 to IH-20	0.89	100%
	U-37	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (4)	IH-20 to WR #1	0.31	100%
	U-38	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (5)	WR #1 to WR #3	0.41	100%
	U-39	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (6)	WR #3 to Aledo Road	0.34	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Old Weatherford	Walsh Ranch	Rebuild	100%
		Roundabout	Quail Meadow	WR #5	New	100%
		Roundabout	Quail Meadow	WR #7	New	100%
		Roundabout	WR #1	WR #5	New	100%
		Roundabout	WR #1	WR #6	New	100%
		Turn Lane Improvements	WR #1	Walsh Ranch	New	100%
		Turn Lane Improvements	WR #2	Walsh Ranch	New	100%
		Roundabout	WR #1	WR #2	New	100%
		Roundabout	WR #1	WR #7	New	100%
		Turn Lane Improvements	WR #3	Walsh Ranch	New	100%
		Roundabout	WR #3	WR #7	New	100%
		Turn Lane Improvements	WR #4	Walsh Ranch	New	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



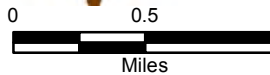
**Legend**

- Impact Fee Eligible - Median
- Impact Fee Eligible - New
- Impact Fee Eligible - Previously Completed
- Impact Fee Eligible - Widening
- Non-Impact Fee Eligible
- Local Roads
- Project Limits
- Railroads
- Turn Lanes
- Roundabout
- Flood Plain

**Impact Fee TIP (SA U)**



Transportation  
Improvements Plan

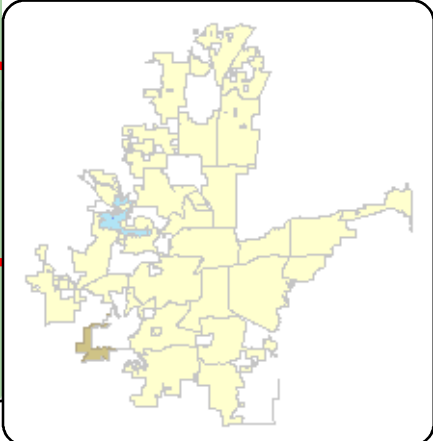


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**Table 2.V. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area V**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA V	V-1	NCO-L2-T0-NTMS-P0-BOP (110)	Dean Ranch (1)	140' E of Markum Ranch to 2,460' E of Markum Ranch	0.44	100%
	V-2	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Dean Ranch (2)	2,445' W of FM 2871 to FM 2871	0.46	100%
	V-3	NCO-L2-T0-NTMS-P0-BOP (110)	Bear Creek (1)	Walsh Ranch Major #2 to Markum Ranch	0.66	100%
	V-4	NCO-L2-T0-NTMS-P0-BOP (110)	Bear Creek (2)	Markum Ranch to US 377	0.42	100%
	V-5	NCO-L2-T0-TWLT-P0-BOP (110)	Markum Ranch (1)	705' S of Dean Ranch to 4,090' S of Dean Ranch	0.64	50%
	V-6	NCO-L2-T0-TWLT-P0-BOP (110)	Markum Ranch (2)	4,090' S of Dean Ranch to Bear Creek	1.05	100%
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Dean Ranch	FM 2871	Rebuild	100%
		Roundabout	Bear Creek	Markum Ranch	New	100%

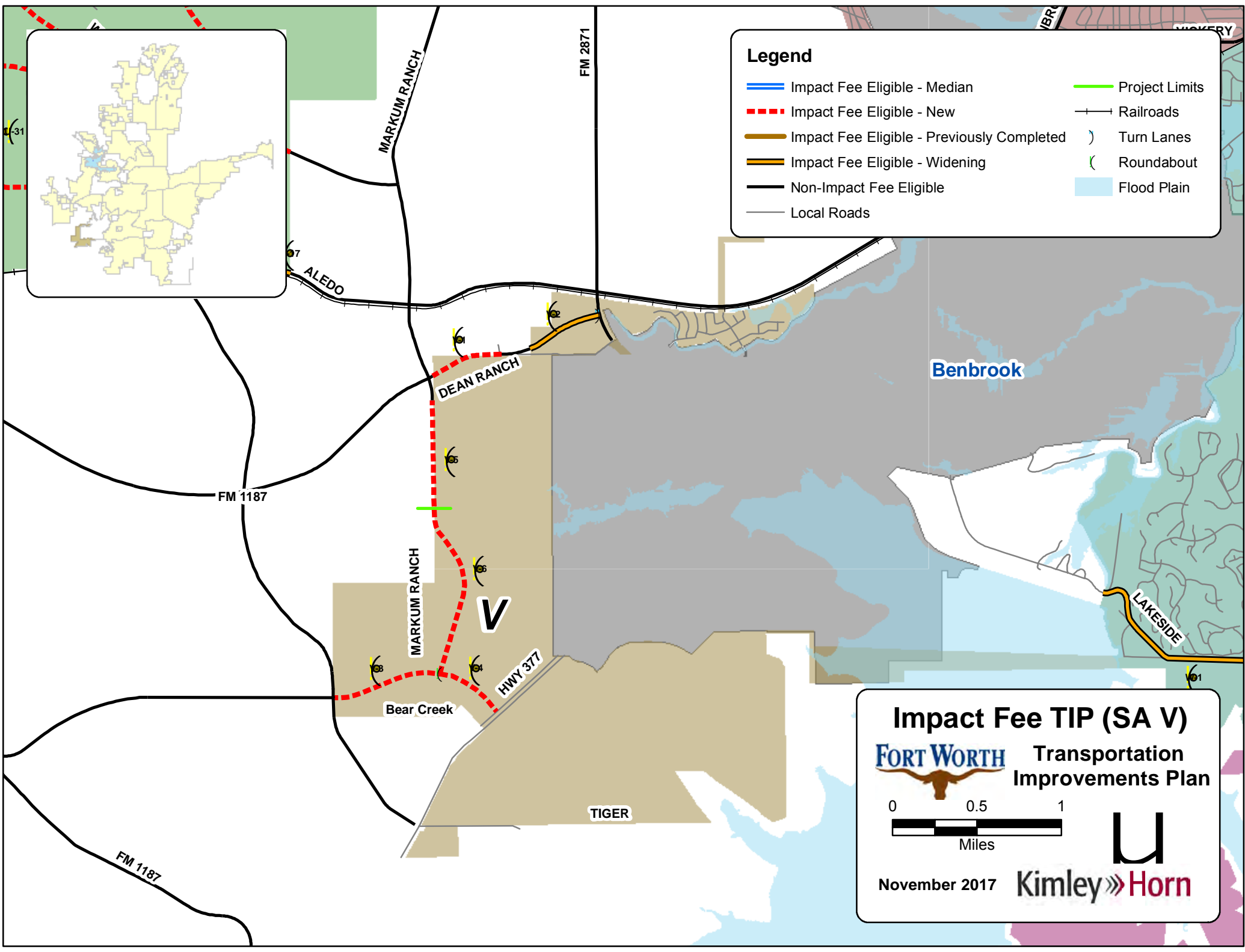
Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



**Legend**

Impact Fee Eligible - Median

Impact Fee Eligible - New

Impact Fee Eligible - Previously CompletedProject Limits

**Impact Fee TIP (SA V)**

**FORT WORTH**

Transportation Improvements Plan

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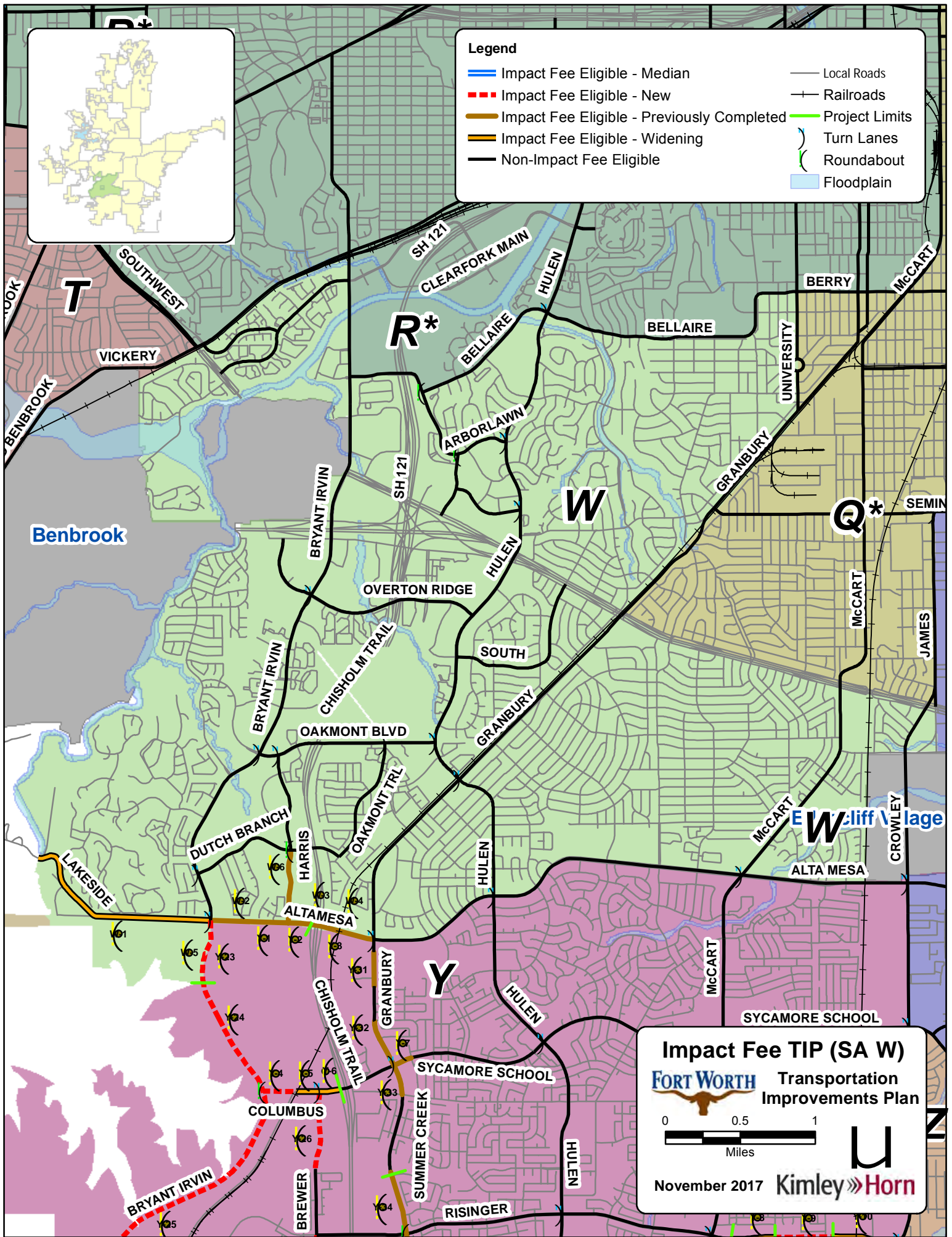
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**Table 2.W. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area W**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA W	W-1	NCO-L1-T0-TWLT-P0-BOP (80)	Lakeside/Altamesa	145' W of Pecan Valley to Bryant Irvin	1.38	100%
	W-2, Y-1	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (1)	Bryant Irvin to Harris	0.52	50%
	W-3, Y-2	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (2)	Harris to Chisholm Trail SBFR	0.16	50%
	W-4, Y-3	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (3)	Chisholm Trail SBFR to Granbury	0.43	50%
	W-5, Y-23	NCO-L2-T0-NTMS-P0-BOP (110)	Bryant Irvin (1)	Altamesa to 2,280' S of Altamesa	0.43	50%
	W-6	NCO (E) (4U)	Harris	Dutch Branch to Altamesa	0.49	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Altamesa	Bryant Irvin	Rebuild	75%
		Turn Lane Improvements	Altamesa	Granbury	Retrofit	50%
		Turn Lane Improvements	Altamesa	Hulen	Retrofit	50%
		Turn Lane Improvements	Altamesa	McCart	Retrofit	50%
		Roundabout	Arborlawn	International	Retrofit	100%
		Turn Lane Improvements	Arborlawn	Hulen	Retrofit	100%
		Roundabout	Bellaire	Arborlawn	Retrofit	75%
		Turn Lane Improvements	Bellaire	Hulen	Retrofit	50%
		Roundabout	Dutch Branch	Harris	Retrofit	100%
		Turn Lane Improvements	Dutch Branch	Bryant Irvin	Retrofit	100%
		Turn Lane Improvements	Hulen	Granbury	Retrofit	100%
		Turn Lane Improvements	Oakmont	Hulen	Retrofit	100%
		Turn Lane Improvements	Oakmont	Oakmont Trail	Retrofit	100%
		Turn Lane Improvements	Oakmont	Harris	Retrofit	100%
		Turn Lane Improvements	Oakmont	Bryant Irvin	Retrofit	100%
		Turn Lane Improvements	Overton	Hulen	Retrofit	100%
		Turn Lane Improvements	Overton Ridge	Bryant Irvin	Retrofit	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.

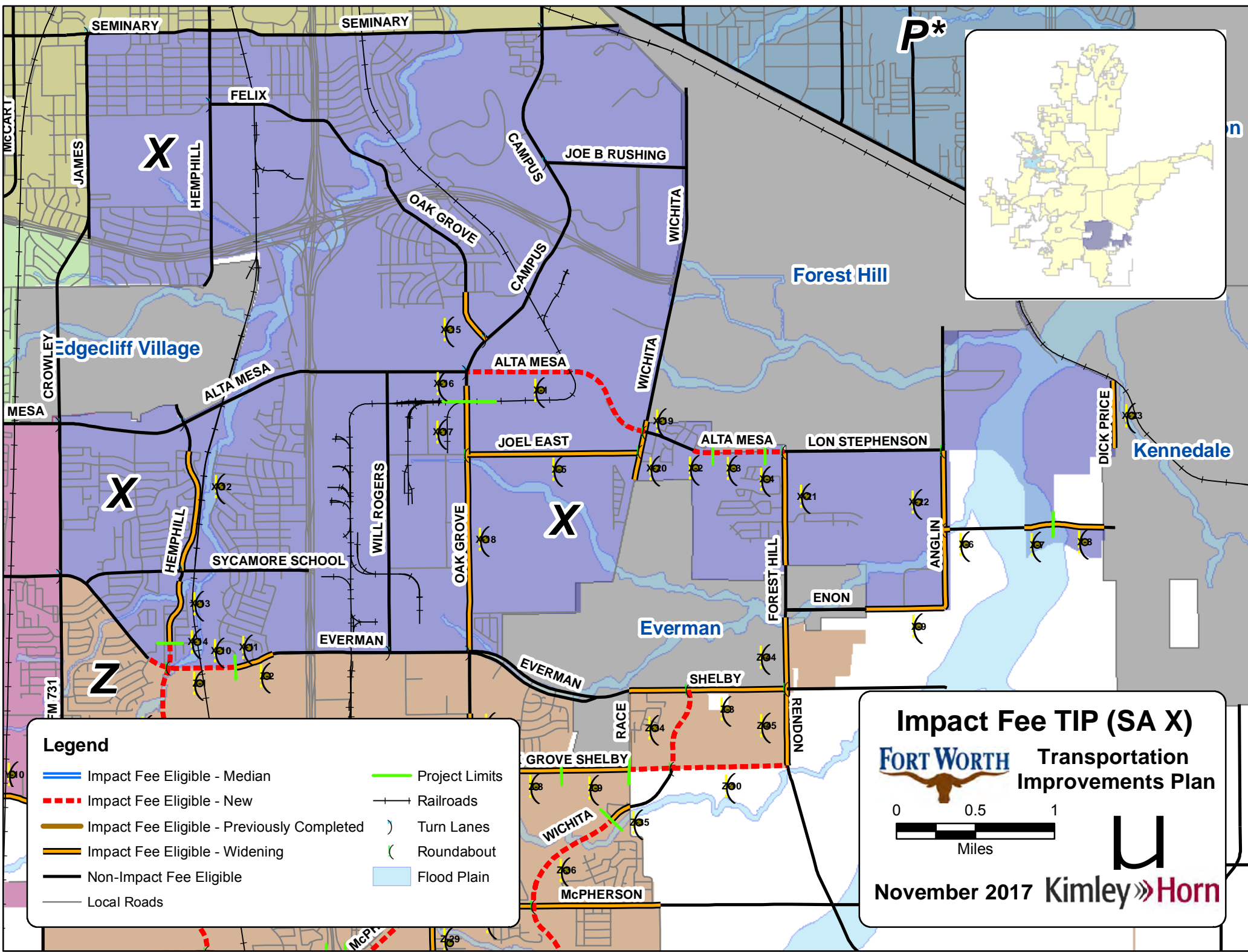




**Table 2.X. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area X**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA X	X-1	CCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (3)	Oak Grove to Wichita	1.31	100%
	X-2	NCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (4)	Lana to 600' E of Lana	0.11	100%
	X-3	NCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (5)	600' E of Lana to 650' W of Forest Hill	0.34	50%
	X-4	NCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (6)	650' W of Forest Hill to Forest Hill	0.12	100%
	X-5	CCO-L1-T0-TWLT-P0-BOP (80)	Joel East	Oak Grove to Wichita	1.10	100%
	X-6	NCO-L1-T0-TWLT-P0-BOP (80)	Everman Kennedale (1)	Anglin to 190' E of Anglin	0.04	100%
	X-7	NCO-L1-T0-TWLT-P0-BOP (80)	Everman Kennedale (2)	2,670' E of Anglin to 3,645' E of Anglin	0.18	100%
	X-8	NCO-L1-T0-TWLT-P0-BOP (80)	Everman Kennedale (3)	3,645' E of Anglin to 5,350' W of Anglin	0.32	100%
	X-9	NCO-L1-T0-TWLT-P0-BOP (80)	Enon	2,635' W of Anglin to Anglin	0.50	100%
	X-10, Z-1	NCO-L2-T0-NTMS-P0-BOP (110)	Everman (1)	Butterwick to Cameron Hill	0.56	50%
	X-11, Z-2	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Everman (2)	Cameron Hill to 110' E of Sheridan	0.25	50%
	X-12	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Hemphill (1)	Sunderland to Sycamore School	0.79	100%
	X-13	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Hemphill (2)	360' S of Sycamore School to 815' N of Everman	0.41	100%
	X-14	NCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (3)	815' N of Everman to Everman	0.15	100%
	X-15	NCO-L2-T0-NTMS-P0-BOP (110)	Oak Grove (1)	Englad to Campus	0.35	100%
	X-16	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Oak Grove (2)	470' S of Alta Mesa to Railroad	0.10	100%
	X-17	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Oak Grove (3)	Railroad to Joel East	0.34	100%
	X-18	CCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (4)	Joel East to Everman	1.25	100%
	X-19	CCO-L2-T0-NTMS-P0-BOP (110)	Wichita (1)	345' N of Altamesa to Joel East	0.20	100%
	X-20	CCO-L2-T0-NTMS-P0-BOP (110)	Wichita (2)	Joel East to 960' S of Joel East	0.18	100%
	X-21	NCO-L2-T0-NTMS-P0-BOP (110)	Forest Hill	Lon Stephenson to 905' S of Hanna Ranch	0.72	100%
	X-22	NCO-L1-T0-TWLT-P0-BOP (80)	Anglin	Lon Stephenson to Enon	1.00	100%
	X-23	NCO-L1-T0-TWLT-P0-BOP (80)	Dick Price	1,935' N of Shadey Ln to 310' S of Shadey Ln	0.43	100%
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Altamesa	Campus	Rebuild	100%
		Turn Lane Improvements	Altamesa	Hemphill	Retrofit	100%
		Turn Lane Improvements	Altamesa	Crowley	Retrofit	50%
		Roundabout	Altamesa	Wichita	Rebuild	100%
		Roundabout	Altamesa	Forest Hill	Rebuild	75%
		Roundabout	Everman	Hemphill	New	50%
		Turn Lane Improvements	Everman	Will Rogers	Retrofit	50%
		Turn Lane Improvements	Everman	Oak Grove	Rebuild	50%
		Turn Lane Improvements	Everman	Crowley	Retrofit	25%
		Roundabout	Everman Kennedale	Anglin	Rebuild	100%
		Turn Lane Improvements	Felix	Hemphill	Retrofit	100%
		Turn Lane Improvements	Joe B Rushing	Campus	Retrofit	100%
		Roundabout	Joel East	Oak Grove	Rebuild	100%
		Roundabout	Joel East	Wichita	Rebuild	100%
		Roundabout	Lon Stephenson	Anglin	Rebuild	75%
		Turn Lane Improvements	Oak Grove	Campus	Rebuild	100%
		Turn Lane Improvements	Seminary	James	Retrofit	25%
		Turn Lane Improvements	Seminary	Campus	Retrofit	50%
		Turn Lane Improvements	Sycamore School	Hemphill	Rebuild	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



**Legend**

	Impact Fee Eligible - Median		Project Limits
	Impact Fee Eligible - New		Railroads
	Impact Fee Eligible - Previously Completed		Turn Lanes
	Impact Fee Eligible - Widening		Roundabout
	Non-Impact Fee Eligible		Flood Plain
	Local Roads		

**Impact Fee TIP (SA X)**

**FORT WORTH** Transportation Improvements Plan

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Miles

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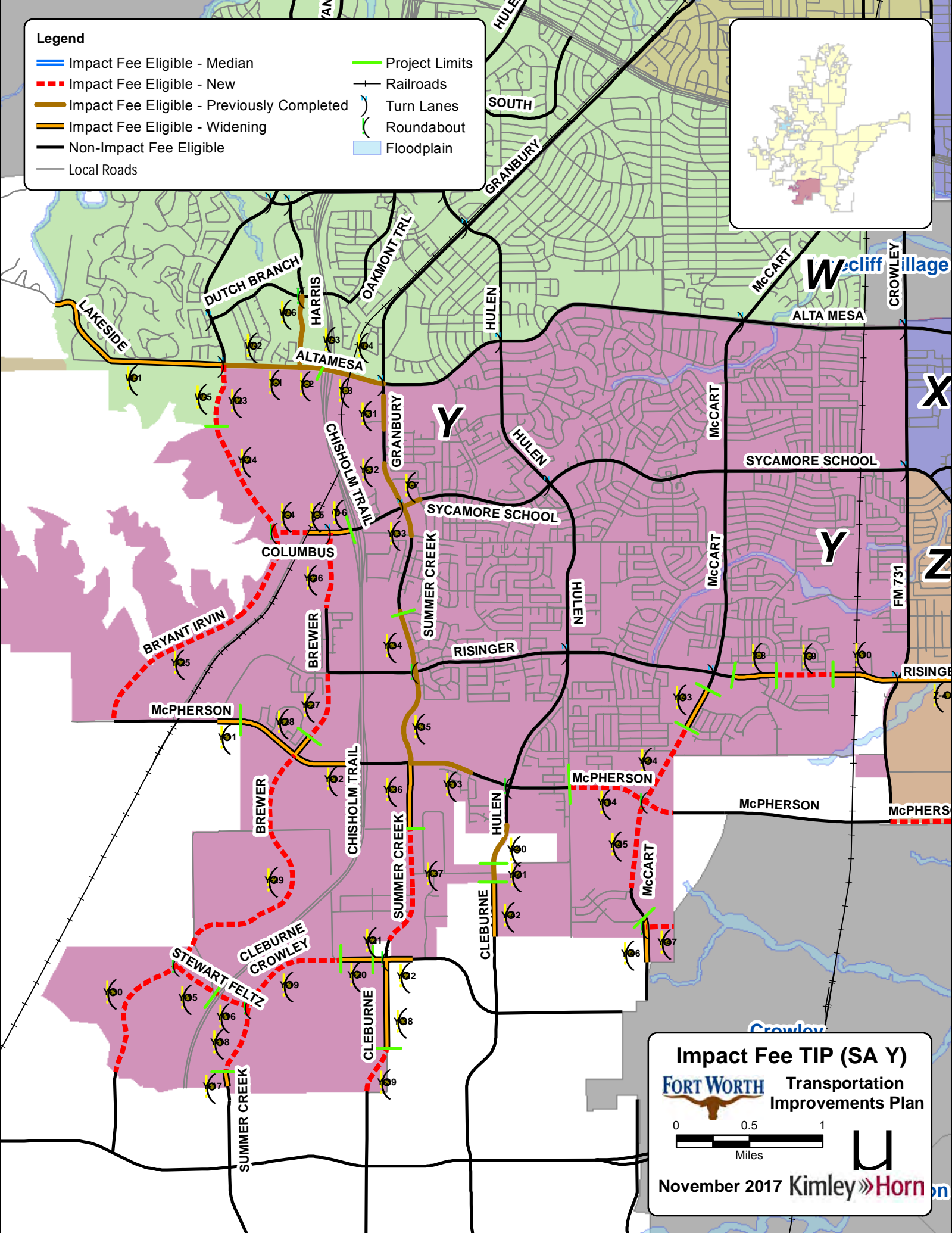
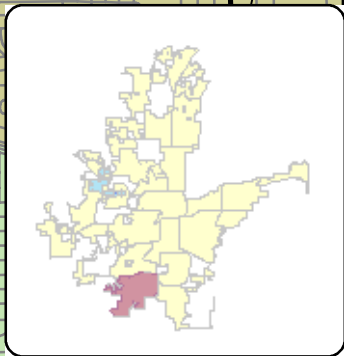
**Table 2.Y. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area Y**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA Y	W-2, Y-1	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (1)	Bryant Irvin to Harris	0.52	50%
	W-3, Y-2	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (2)	Harris to Chisholm Trail	0.16	50%
	W-4, Y-3	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (3)	Chisholm Trail to Granbury	0.43	50%
	Y-4	CMU-L2-T0-TWLT-P0-BLC (110)	Columbus Trail (1)	Bryant Irvin (Future) to Old Granbury	0.22	100%
	Y-5	CMU-L2-T0-TWLT-P0-BLC (110)	Columbus Trail (2)	Old Granbury to Brewer (Future)	0.16	100%
	Y-6	CCO-L2-T0-NTMS-P0-BOP (110)	Sycamore School (1)	Brewer (Future) to Chisholm Trail	0.14	100%
	Y-7	CCO (E)	Sycamore School (2)	Summer Creek to Creek Meadows	0.13	100%
	Y-8	SYS-L2-T0-NTMS-P0-BOP (110) (1/2)	Risinger (1)	760' E of McCart to Poynter	0.28	100%
	Y-9	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (2)	Poynter to 275' E of Carolina	0.39	100%
	Y-10	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (3)	275' E of Carolina to FM 731	0.45	100%
	Y-11	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	McPherson (1)	Risinger to 795' E of Risinger	0.15	100%
	Y-12	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	McPherson (2)	795' E of Risinger to Chisholm Trail SBFR	0.89	100%
	Y-13	NCO-L2-T0-NTMS-P0-BLS (110)	McPherson (3)	Summer Creek to Willow Branch	0.42	100%
	Y-14	NCO-L2-T0-NTMS-P0-BLS (110)	McPherson (4)	Cleburne to 3970' E of Cleburne	0.75	100%
	Y-15	CCO-L2-T0-TWLT-P0-BOP (110)	Stewart Feltz (1)	Brewer to Chisholm Trail	0.35	100%
	Y-16	CCO-L2-T0-TWLT-P0-BOP (110)	Stewart Feltz (2)	Chisholm Trail to Cleburne Crowley	0.23	100%
	Y-17	CCO-L2-T0-TWLT-P0-BOP (110)	Summer Creek (1)	2,515' S of Stewart Feltz (Future) to 3,055' S of Stewart Feltz (Future)	0.10	100%
	Y-18	CCO-L2-T0-TWLT-P0-BOP (110)	Summer Creek (2)	Stewart Feltz (Future) to 2,515' S of Stewart Feltz	0.48	100%
	Y-19	CCO-L2-T0-TWLT-P0-BOP (110)	Cleburne Crowley (1)	Stewart Feltz (Future) to Cleburne Crowley (Existing)	0.77	100%
	Y-20	NCO-L2-T0-TWLT-P0-BOP (110)	Cleburne Crowley (2)	Cleburne Crowley (Existing) to 480' W of Cleburne	0.22	100%
	Y-21	NCO-L2-T0-TWLT-P0-BOP (110)	Cleburne Crowley (3)	480' W of Cleburne to Cleburne	0.09	100%
	Y-22	NCO-L1-T0-TWLT-P0-BOP (80)	Cleburne Crowley (4)	Cleburne to 945' E of Cleburne	0.18	100%
	W-5, Y-23	NCO-L2-T0-NTMS-P0-BOP (110)	Bryant Irvin (1)	Altamesa to 2,280' S of Altamesa	0.43	50%
	Y-24	CMU-L2-T0-TWLT-P0-BLC (110)	Bryant Irvin (2)	2,280' S of Altamesa to Columbus (Future)	0.82	100%
	Y-25	NCO-L2-T0-TWLT-P0-BOP (110)	Bryant Irvin (3)	Columbus Trail (Future) to McPherson	1.83	100%
	Y-26	CMU-L2-T0-TWLT-P0-BLC (110)	Brewer (1)	Columbus Trail to 2,740' S of Columbus Trail	0.52	100%
	Y-27	CCO-L2-T0-NTMS-P0-BOP (110)	Brewer (2)	Risinger to Rockrose	0.47	100%
	Y-28	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Brewer (3)	Rockrose to McPherson	0.16	100%
	Y-29	NCO-L2-T0-NTMS-P0-BOP (110)	Brewer (4)	McPherson to Stewart Feltz (Future)	2.00	100%
	Y-30	NCO-L1-T0-TWLT-P0-BOP (80)	Brewer (5)	Stewart Feltz (Future) to 4,935' S of Stewart Feltz	0.93	100%
	Y-31	NCO (E)	Granbury	445' S of Altamesa to 275' S of Mesa Springs	0.23	100%
	Y-32	NCO (E)	Granbury/Summer Creek	Summer Meadows to Sycamore School	0.33	100%
	Y-33	NCO (E)	Summer Creek (3)	Sycamore School to Columbus	0.20	100%
	Y-34	NCO (E)	Summer Creek (4)	145' N of Summer Park to Risinger	0.42	100%
	Y-35	NCO (E)	Summer Creek (5)	Risinger to McPherson	0.66	100%
	Y-36	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)	Summer Creek (6)	McPherson to Sunflower Ridge	0.45	100%
	Y-37	NCO-L2-T0-NTMS-P0-BLS (110)	Summer Creek (7)	Sunflower Ridge to 710' N of Cleburne Crowley	0.81	100%
	Y-38	NCO-L2-T0-NTMS-P0-BLS (110)	Cleburne (1)	Cleburne Crowley to 3,185' S of Cleburne Crowley	0.60	100%
	Y-39	NCO-L2-T0-NTMS-P0-BLS (110)	Cleburne (2)	3,185' S of Cleburne Crowley to Longhorn Trail	0.33	100%
	Y-40	NCO-L1-T0-TWLT-P0-BOP (80) (1/2)	Hulen	Winnipeg to 335' N of Rancho Verde	0.28	100%
	Y-41	NCO-L1-T0-TWLT-P0-BOP (80)	Cleburne (3)	335' N of Rancho Verde to 330' S of Rancho Verde	0.13	100%
	Y-42	NCO-L1-T0-TWLT-P0-BOP (80)	Cleburne (4)	330' S of Rancho Verde to 2,295' S of Rancho Verde	0.37	100%
	Y-43	SYS-L2-T0-NTMS-P0-BLS (110) (1/2)	McCart (1)	590' S of Risinger to 120' S of Cayman	0.31	100%
	Y-44	SYS-L2-T0-NTMS-P0-BLS (110)	McCart (2)	120' S of Cayman to McPherson (Future)	0.57	100%
	Y-45	NCO-L2-T0-NTMS-P0-BLS (110)	McCart (3)	McPherson (Future) to 140' N of Twinleaf	0.60	100%
	Y-46	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)	McCart (4)	Mountain Meadow to 1,600' S of Mountain Meadow	0.30	100%
	Y-47	NCO-L2-T0-TWLT-P0-BOP (110)	Industrial	McCart to 1,005' E of McCart	0.19	100%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Turn Lane Improvements	Altamesa	FM 731	Retrofit	50%
		Turn Lane Improvements	Altamesa	Bryant Irvin	Rebuild	25%
		Turn Lane Improvements	Altamesa	Granbury	Retrofit	50%
		Turn Lane Improvements	Altamesa	Hulen	Retrofit	50%
		Turn Lane Improvements	Altamesa	McCart	Retrofit	50%
		Roundabout	Columbus Trail	Bryant Irvin	New	100%
		Turn Lane Improvements	Columbus Trail	Brewer	Rebuild	100%
		Turn Lane Improvements	Sycamore School	FM 731	Retrofit	50%
		Roundabout	McCart	Industrial	Rebuild	100%
		Roundabout	McPherson	Hulen	Retrofit	100%
		Roundabout	McPherson	McCart	New	100%
		Roundabout	Risinger	Summer Creek	Retrofit	100%
		Turn Lane Improvements	Risinger	Hulen	Retrofit	100%
		Turn Lane Improvements	Risinger	McCart	Retrofit	100%
		Turn Lane Improvements	Risinger	FM 731	Rebuild	50%
		Roundabout	Stewart Feltz	Brewer	New	100%
		Roundabout	Stewart Feltz	Summer Creek	New	100%
		Roundabout	Cleburne Crowley	Cleburne	Rebuild	50%
		Turn Lane Improvements	Sycamore School	Summer Creek	Retrofit	100%
		Turn Lane Improvements	Sycamore School	Hulen	Retrofit	100%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.

**Legend**

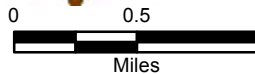
- Impact Fee Eligible - Median
- - - Impact Fee Eligible - New
- Impact Fee Eligible - Previously Completed
- Impact Fee Eligible - Widening
- Non-Impact Fee Eligible
- Local Roads
- Project Limits
- + Railroads
- ) Turn Lanes
- ) Roundabout
- Floodplain



**Impact Fee TIP (SA Y)**



**Fort Worth** Transportation Improvements Plan

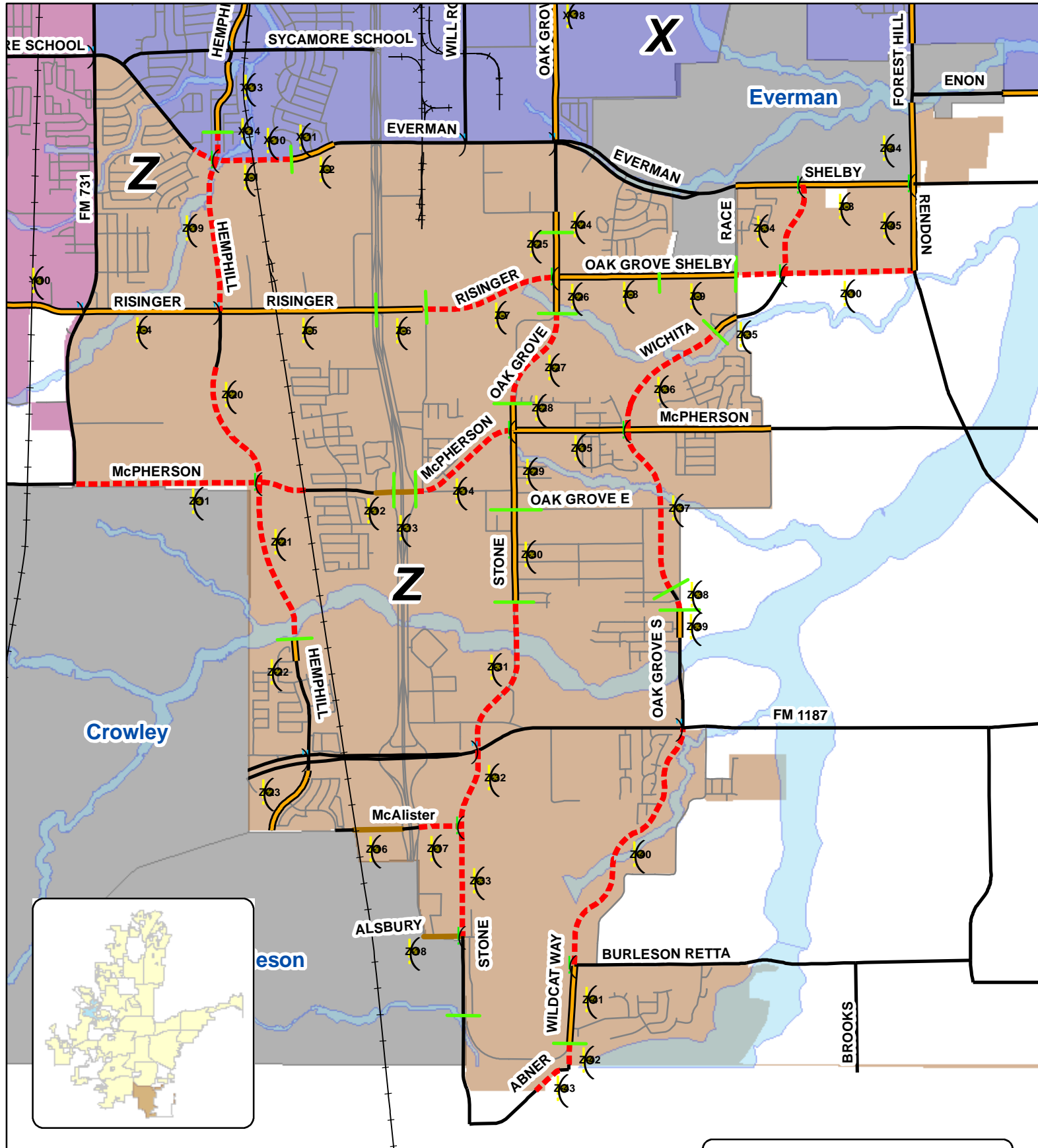


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**Table 2.Z. 10-Year Transportation Impact Fee Transportation Improvements Plan – Service Area Z**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area
SA Z	X-10, Z-1	NCO-L2-T0-NTMS-P0-BOP (110)	Everman (1)	Butterwick to Cameron Hill	0.56	50%
	X-11, Z-2	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Everman (2)	Cameron Hill to 110' E of Sheridan	0.25	50%
	Z-3	NCO-L2-T0-NTMS-P0-BOP (110)	Shelby	Race to Rendon	1.00	50%
	Z-4	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (4)	FM 731 to Hemphill	0.76	100%
	Z-5	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (5)	Hemphill to IH-35 W	0.88	100%
	Z-6	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (6)	IH-35 W to 1,370' W of IH-35 W	0.26	100%
	Z-7	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (7)	1,370' W of IH-35 W to Oak Grove	0.79	100%
	Z-8	SYS-L2-T0-NTMS-P0-BOP (110)	Oak Grove Shelby (1)	Oak Grove to 1,400' E of Michael	0.57	100%
	Z-9	SYS-L2-T0-NTMS-P0-BOP (110)	Oak Grove Shelby (2)	1,400' E of Michael to Race	0.43	100%
	Z-10	NCO-L1-T0-TWLT-P0-BOP (80)	Oak Grove Shelby (3)	Race to Rendon	1.00	50%
	Z-11	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (5)	FM 731 to 1,210' W of Deer	1.30	100%
	Z-12	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (6)	Bilsky Bay to IH-35 W SBFR	0.09	100%
	Z-13	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (7)	IH-35 W SBFR to IH-35 W NBFR	0.13	100%
	Z-14	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (8)	IH-35 W NBFR to Oak Grove	0.67	100%
	Z-15	NCO-L2-T0-TWLT-P0-BOP (110)	McPherson (9)	Oak Grove to Forest Hill Everman	1.44	100%
	Z-16	NCO (E)	McAlister (1)	1,430' W of IH-35 W SBFR to IH-35 W SBFR	0.27	100%
	Z-17	NCO-L1-T0-TWLT-P0-BOP (80)	McAlister (2)	IH-35 W NBFR to Stone	0.24	100%
	Z-18	NCO-L2-T0-TWLT-P0-BOP (110)	Alsbury	IH-35 W NBFR to Stone	0.22	100%
	Z-19	CCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (4)	Everman to Risinger	0.86	100%
	Z-20	CCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (5)	3,870' N of McPherson to McPherson	0.73	100%
	Z-21	NCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (6)	McPherson to 655' N of Brasenose	0.91	100%
	Z-22	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Hemphill (7)	655' N of Brasenose to Nuffield	0.12	100%
	Z-23	NCO-L2-T0-TWLT-P0-BOP (110) (1/2)	Hemphill (8)	240' S of FM 1187 to 130' S of Windy Knoll	0.40	100%
	Z-24	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Oak Grove (5)	Forum to 605' S of Forum	0.11	100%
	Z-25	CCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (6)	605' S of Forum to Risinger	0.25	100%
	Z-26	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (7)	Risinger to 1,020' S of Risinger	0.19	100%
	Z-27	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (8)	1,025' S of Risinger to Buffalo Springs	0.59	100%
	Z-28	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (9)	Buffalo Springs to McPherson	0.16	100%
	Z-29	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (10)	McPherson to Oak Grove E	0.44	100%
	Z-30	NCO-L2-T0-NTMS-P0-BOP (110)	Stone (1)	Oak Grove E to Nelson	0.52	100%
	Z-31	CCO-L2-T0-NTMS-P0-BOP (110)	Stone (2)	Nelson to FM 1187	0.90	100%
	Z-32	CCO-L2-T0-TWLT-P0-BOP (110)	Stone (3)	FM 1187 to McAlister	0.44	100%
	Z-33	CCO-L2-T0-TWLT-P0-BOP (110)	Stone (4)	McAlister to Alsbury	0.62	100%
	Z-34	NCO-L2-T0-NTMS-P0-BOP (110)	Wichita (3)	Shelby to Oak Grove Shelby	0.52	100%
	Z-35	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Wichita (4)	Race to 795' W of Race	0.15	100%
	Z-36	NCO-L2-T0-NTMS-P0-BOP (110)	Wichita (5)	795' W of Race to McPherson	0.84	100%
	Z-37	NCO-L2-T0-NTMS-P0-BOP (110)	Wichita (6)	McPherson to Nicole	0.96	100%
	Z-38	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove S (1)	Nelson to 310' S of Nelson	0.06	100%
	Z-39	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove S (2)	310' S of Nelson to 260' S of Smallwood	0.16	100%
	Z-40	NCO-L1-T0-TWLT-P0-BOP (80)	Wildcat Way (1)	FM 1187 to Burleson Retta	1.55	100%
	Z-41	NCO-L1-T0-TWLT-P0-BOP (80)	Wildcat Way (2)	Burleson Retta to 455' S of Thomas Crossing	0.44	100%
	Z-42	NCO-L1-T0-TWLT-P0-BOP (80)	Wildcat Way (3)	Abner Lee to 615' S of Abner Lee	0.12	100%
	Z-43	NCO-L1-T0-TWLT-P0-BOP (80)	Abner Drive	1,195' W of Wildcat Way to 260' W of Wildcat Way	0.18	100%
	Z-44	NCO-L2-T0-NTMS-P0-BOP (110)	Forest Hill	645' N of Chambers Creek to Shelby	0.45	50%
	Z-45	NCO-L2-T0-NTMS-P0-BOP (110)	Rendon	Shelby to Oak Grove Shelby	0.48	50%
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area
		Roundabout	Alsbury	Stone	Rebuild	75%
		Roundabout	Burleson Retta	Wildcat Way	Rebuild	100%
		Roundabout	Everman	Hemphill	New	50%
		Turn Lane Improvements	Everman	Will Rogers	Retrofit	50%
		Turn Lane Improvements	Everman	Oak Grove	Rebuild	50%
		Turn Lane Improvements	Everman	FM 731	Retrofit	25%
		Roundabout	McAlister	Stone	New	100%
		Roundabout	McPherson	Hemphill	New	100%
		Roundabout	McPherson	Oak Grove	Rebuild	100%
		Roundabout	McPherson	Wichita	Rebuild	100%
		Turn Lane Improvements	FM 1187	Stone	Rebuild	100%
		Turn Lane Improvements	FM 1187	Oak Grove S	Rebuild	75%
		Turn Lane Improvements	FM 1187	Hemphill	Retrofit	100%
		Turn Lane Improvements	Risinger	FM 731	Rebuild	50%
		Turn Lane Improvements	Risinger	Hemphill	Rebuild	100%
		Roundabout	Risinger	Oak Grove	Rebuild	100%
		Roundabout	Oak Grove Shelby	Wichita	New	50%
		Roundabout	Shelby	Wichita	Rebuild	50%
		Roundabout	Shelby	Rendon	Rebuild	75%

Note: The 10-Year Transportation Impact Fee TIP is not in a prioritized order.



**Impact Fee TIP (SA Z)**

**FORT WORTH** Transportation Improvements Plan

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Miles

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## IV. METHODOLOGY FOR TRANSPORTATION IMPACT FEES

### A. Service Areas

The twenty-seven (28) service areas used in the 2017 Transportation Impact Fee Study are shown in the previously referenced **Exhibit 1**. These service areas cover the entire corporate area of the City of Fort Worth. Chapter 395 of the Texas Local Government Code specifies that “the service area is limited to an area within the corporate boundaries of the political subdivision and shall not exceed six (6) miles.” The service areas in the 2017 Transportation Impact Fee Study are consistent with those in the previous Transportation Impact Fee Study with slight modifications to include annexations since the previous study. Previously, there were eight (8) no fee service areas. With the 2017 Transportation Impact Fee Update Service Area V now has a calculated fee and Service Area PI (Panther Island) was created as a new service area.

### B. Service Units

The “service unit” is a measure of consumption or use of the capital facilities by new development. In other words, it is the unit of measure used in the 2017 Transportation Impact Fee Study to quantify the supply and demand for roads in the City. For transportation purposes, the service unit is defined as a vehicle-mile. Below is the definition for vehicle-mile.

Vehicle-Mile: The capacity consumed in a single lane in the PM peak hour by a vehicle making a trip one mile in length. The PM Peak is used as the basis for transportation planning and the estimation of trips caused by new development.

Total Vehicle-Miles of Supply: Based on the total length (miles), number of lanes, and capacity (vehicles per hour) provided by the Fort Worth MTP (see **Appendix B**).

Total Vehicle-Miles of Demand: Based on the 10-year growth projections (Pg. 95). The demand is equal to PM Trip Rate (trips) \* Trip Length (miles).

The capacity values used in the 2017 Transportation Impact Fee Study are based upon Thoroughfare Capacity Criteria published by the North Central Texas Council of

Governments (NCTCOG) and applied to City of Fort Worth thoroughfare standards. **Tables 3A and 3B** show the service volumes as a function of the facility classification and type.

**Table 3A. Service Volumes for Proposed Facilities**  
(used in Appendix B – Transportation Impact Fee TIP Service Units of Supply)

<b>Facility Classification</b>	<b>Median Configuration</b>	<b>Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility</b>
<b>6 Lane Thoroughfares</b>	Divided	700
<b>5 Lane Thoroughfares</b>	Undivided	650
<b>4 Lane Thoroughfares</b>	Divided	700
<b>3 Lane Thoroughfares</b>	Undivided	650

**Table 3B. Service Volumes for Existing Facilities**  
(used in Appendix C – Existing Roadway Facilities Inventory)

<b>Roadway Type</b>	<b>Description</b>	<b>Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility</b>
<b>2U-R</b>	Rural Cross-Section (i.e., gravel, dirt, etc.)	150
<b>2U-H</b>	Two lane undivided – Arterial Type	700
<b>2U</b>	Two lane undivided	425
<b>3U</b>	Three lane undivided (two-way, left-turn lane)	650
<b>4U</b>	Four lane undivided	650
<b>4D</b>	Four lane divided	700
<b>6D</b>	Six lane divided	700

### **C. Cost Per Service Unit**

A fundamental step in the impact fee process is to establish the cost for each service unit. In the case of the Transportation Impact Fee, this is the cost for each vehicle-mile of travel. Thus, it is the cost to construct a roadway (lane-mile) needed to accommodate a vehicle-mile of travel. The cost per service unit is calculated for each service area based on the roadway projects within that service area.

The second component of the cost per service unit is the determination of the number of service units in each service area. This number is the measure of the growth in transportation demand that is projected to occur in the ten-year period.

### **D. Cost of the TIP**

All of the project costs for an arterial or collector facility which serves the overall transportation system are eligible to be included in the Transportation Impact Fee Transportation Improvements Plan. Chapter 395 of the Texas Local Government Code specifies that the allowable costs are "...including and limited to the:

1. Construction contract price;
2. Surveying and engineering fees;
3. Land acquisition costs, including land purchases, court awards and costs, attorney's fees, and expert witness fees; and
4. Fees actually paid or contracted to be paid to an independent qualified engineer or financial consultant preparing or updating the capital improvements plan who is not an employee of the political subdivision."

The engineer's opinion of the probable costs of the projects in the Transportation Impact Fee TIP is based, in part, on the calculation of a unit cost of construction. This means that a cost per linear foot of roadway is calculated based on an average price for the various components of roadway construction. This allows the probable cost to be determined by the type of facility being constructed, the number of lanes, and the length of the project. The cost for location specific items such as bridges, highway ramps, drainage structures, and any other special components are added to each project, as appropriate. The following is a



## Project Information

In order to correctly estimate the cost of a roadway project, several attributes are first identified:

- Project Number – Identifies which Service Area the project is in with a corresponding number. The corresponding number does not represent any prioritizations and is used only to identify projects. For example, Project A-10 is in Service Area A and is the 10<sup>th</sup> project on the list.
- Name – A unique identifier for each project. In some cases abbreviations are used for the project name.
- Limits – Represents the beginning and ending location for each project.
- Impact Fee Class – The costing class to be used in the analysis. The impact fee class provides the width for the various elements in the roadway. The construction costs are variable, based on the MTP classification of the roadway. The explanation of the MTP classification codes can be found on Page 5 of the City of Fort Worth's *Master Thoroughfare Plan*. Additional classifications are utilized in cases where a portion of the facility currently exists and the road is only to be widened, or where the road is planned to be widened to an interim configuration. The following notations are used for these projects:
  - "(1/2)" for facilities where half the facility still needs to be constructed;
  - "(1/3)" for existing four lane arterial facilities where two additional median lanes are needed to complete their ultimate six lane configuration; and
  - "(W)" for future six-lane arterial facilities where four lanes with a wide median will be built as an interim configuration for an ultimate six lane facility.
- Ultimate Class – The functional classification on Fort Worth's MTP.
- Length (ft) – The distance measured in feet that is used to cost out the project.
- Service Area(s) – Represents the service areas where the project is located. In some cases the project is located partially in the ETJ.
- Description – Used to describe the project type assumed in the costing such as a widening or reconstruction.

## **2. Construction Pay Items**

A typical roadway project consists of a number of costs, including the following: planning, survey, design engineering, permitting, right-of way acquisition, and construction and inspection. While the construction cost component of a project may actually consist of approximately 100 various pay items, a simplified approach was used for developing the conceptual level project costs. The pay items used in the 2017 Transportation Impact Fee TIP are as follows:

- Unclassified street excavation;
- Lime Stabilization;
- Concrete pavement;
- Curb and gutter;
- Topsoil;
- Sidewalk; and
- An Allotment for auxiliary lanes and median openings.

## **3. Construction Component Allowances**

A percentage of the paving construction cost is allotted for various major construction component allowances, as appropriate. These allowances include preparation of right-of-way, traffic control, pavement markings and signage, roadway drainage, illumination, minor water and sewer adjustments, establish turf/erosion control, and basic landscaping. These allowance percentages are also based on historical data.

In addition, lump sum dollar allowances are provided for special drainage structures, and railroad crossings. The paving and allowance subtotal is given a fifteen percent (15%) contingency.

## **4. Summary of Cost and Allowances**

To determine the total Impact Fee Project Cost, twenty percent (20%) of the construction cost total is added for engineering, surveying, and testing and an addition five (5%) for mobilization. Percentages are also allotted ROW/easement acquisition. ROW/easement acquisition was based on whether the project was an existing alignment or future alignment. For an existing alignment, the ROW/easement acquisition cost was provided an allotment



equal to 10% of the construction cost total. For a new alignment, the ROW/easement acquisition cost was equal to 20% of the construction cost total. The value for ROW/easement acquisition is an estimated contribution allocation and does not represent actual ROW/easement acquisition needs. Cash funds allocated from the Transportation Impact Fees Legacy Fund have been subtracted from the corresponding City projects.

The Impact Fee Project Cost Total is then the Construction Cost Total plus engineering, surveying, and testing; plus Mobilization, plus ROW/easement acquisition; and minus roadway escrow agreements. Based upon discussions with City of Fort Worth staff, state highway projects were excluded from the 2017 TIP.

### **E. Summary of Transportation Impact Fee TIP Costs**

**Tables 4.A – 4.Z** are the 10-Year Transportation Impact Fee TIP project lists for each service area with planning level project costs. Individual project cost worksheets can be seen in **Appendix A**, Conceptual Level Project Cost Projections. It should be noted that these tables reflect only conceptual-level opinions or assumptions regarding the portions of future project costs that are recoverable through impact fees. Actual project costs are likely to change with time and are dependent on market and economic conditions that cannot be predicted. The Transportation Impact Fee TIP establishes the list of projects for which Impact Fees may be utilized. Projects not included in the Transportation Impact Fee TIP are not eligible to receive impact fee funding. The cost projections utilized in this study should not be utilized for the City's construction CIP.

**Table 4.A – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area A**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA A	A-1	CCO-L2-T0-TWLT-P0-BOP (110)	Litsey (1)	IH-35 W to 2,620' E of IH-35 W	0.50	100%	\$ 4,054,000	\$ 4,054,000
	A-2	CCO-L2-T0-TWLT-P0-BOP (110)	Litsey (2)	2,435' W of Cleveland Gibbs to Cleveland Gibbs	0.27	100%	\$ 2,107,000	\$ 2,107,000
	A-3	NCO-L2-T0-TWLT-P0-BOP (110)	Litsey (3)	1,300' W of Cleveland Gibbs to Cleveland Gibbs	0.25	100%	\$ 1,866,000	\$ 1,866,000
	A-4	NCO-L2-T0-NTMS-P0-BOP (110)	Litsey (4)	Cleveland Gibbs to 875' E of Bluffdale	0.80	100%	\$ 3,264,432	\$ 3,264,432
	A-5	CCO-L2-T0-NTMS-P0-BOP (110)	Eagle (3)	Beach to 955' E of Beach	0.18	100%	\$ 1,385,000	\$ 1,385,000
	A-6	CCO-L2-T0-TWLT-P0-BOP (110)	Henrietta Creek (1)	2545' W of Park Vista to 330' E of Park Vista	0.54	100%	\$ 4,449,000	\$ 4,449,000
	A-7	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Henrietta Creek (2)	90' W of Seventeen Lakes to Independence Pkwy	0.31	100%	\$ 1,172,000	\$ 1,172,000
	A-8	CCO-L2-T0-NTMS-P0-BOP (110)	Westport (1)	IH-35 W NBFR to 640' E of IH-35 W NBFR	0.00	100%	\$ 1,620,000	\$ 1,620,000
	A-9	CCO-L2-T0-NTMS-P0-BOP (110)	Westport (2)	640' E of IH-35 W NBFR to Old Denton	0.62	100%	\$ 4,505,000	\$ 4,505,000
	A-10	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (3)	Old Denton to Beach	0.49	100%	\$ 3,833,000	\$ 3,833,000
	A-11	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (4)	Beach to Alta Vista	0.41	100%	\$ 3,342,000	\$ 3,342,000
	A-12	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (5)	495' W of SH 170 WBFR to SH 170 WBFR	0.09	100%	\$ 767,000	\$ 767,000
	A-13	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (6)	SH 170 EBFR to 625' W of Park Vista	0.40	100%	\$ 3,257,000	\$ 3,257,000
	A-14	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Westport (7)	400' E of Park Vista to 1370' W of Independence	0.37	100%	\$ 1,388,000	\$ 1,388,000
	A-15, D-1	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (1)	485 E of Llybrook to N Caylor	0.29	50%	\$ 2,086,000	\$ 1,043,000
	A-16, D-2	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (2)	N Caylor to 375' E of N Caylor	0.07	50%	\$ 504,000	\$ 252,000
	A-17, D-3	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (3)	375' E of N Caylor to Park Vista	0.22	50%	\$ 5,241,058	\$ 2,620,529
	A-18, D-4	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (4)	Park Vista to 355' E of Park Vista	0.07	50%	\$ 1,703,344	\$ 851,672
	A-19, D-5	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Timberland (5)	355' E of Park Vista to 425' E of Harvest Oaks	0.46	50%	\$ 1,694,000	\$ 847,000
	A-20, D-6	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (6)	425' E of Harvest Oaks to Main	0.10	50%	\$ 1,447,000	\$ 723,500
	A-21	CCO-L2-T0-TWLT-P0-BOP (110)	Old Denton (1)	Westport to 1095' S of Westport	0.21	100%	\$ 1,608,000	\$ 1,608,000
	A-22	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Old Denton (2)	1095' S of Westport to SH 170 WBFR	0.31	100%	\$ 1,176,000	\$ 1,176,000
	A-23	CCO-L2-T0-TWLT-P0-BOP (110)	Beach (1)	(Future) Litsey to 730' S of (Future) Litsey	0.14	100%	\$ 1,130,000	\$ 1,130,000
	A-24	CCO-L2-T0-TWLT-P0-BOP (110)	Beach (2)	730' S of (Future) Litsey to 2,010' S of (Future) Litsey	0.24	100%	\$ 1,881,000	\$ 1,881,000
	A-25	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)	Beach (3)	Eagle to 800' S of Eagle	0.15	100%	\$ 599,000	\$ 599,000
	A-26	CCO-L2-T0-NTMS-P0-BLC (110)	Beach (4)	800' S of Henrietta Creek to 1,830' S of Henrietta Creek	0.19	100%	\$ 1,562,000	\$ 1,562,000
	A-27	CCO-L2-T0-NTMS-P0-BLC (110)	Beach (5)	1,350' N of Westport to Westport	0.26	100%	\$ 2,047,000	\$ 2,047,000
	A-28	CCO-L2-T0-NTMS-P0-BLC (110)	Beach (6)	Westport to SH 170 WBFR	0.21	100%	\$ 1,698,000	\$ 1,698,000
	A-29, D-32	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Beach (7)	SH 170 EBFR to 2,045' S of SH 170 EBFR	0.39	50%	\$ 3,415,000	\$ 1,707,500
	A-30, D-33	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Beach (8)	410' N of Saratoga Downs to Timberland	0.70	50%	\$ 1,285,000	\$ 642,500
	A-31	NCO-L1-T0-TWLT-P0-BOP (80)	Park Vista (1)	995' S of Henrietta Creek to 1,480' S of Henrietta Creek	0.09	100%	\$ 522,000	\$ 522,000
	A-32	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Park Vista (2)	Keller Haslet to 415' N of Timberland	0.48	100%	\$ 1,781,000	\$ 1,781,000
	A-33	NCO-L2-T0-NTMS-P0-BOP (110)	Park Vista (3)	415' N of Timberland to Timberland	0.08	100%	\$ 1,701,548	\$ 1,701,548
	A-34	CCO-L2-T0-TWLT-P0-BOP (110)	Independence	Litsey to Henrietta Creek	1.15	100%	\$ 10,147,000	\$ 10,147,000
Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area	
	Turn Lane Improvements	Beach	Timberland	Rebuild	25%	\$ 500,000	\$ 125,000	
	Turn Lane Improvements	US 377	Timberland	Rebuild	25%	\$ 200,000	\$ 50,000	
	Turn Lane Improvements	Eagle	Beach	Rebuild	100%	\$ 200,000	\$ 200,000	
	Roundabout	Henrietta Creek	Independence	Rebuild	100%	\$ 1,500,000	\$ 1,500,000	
	Roundabout	Henrietta Creek	Park Vista	New	100%	\$ 1,000,000	\$ 1,000,000	
	Roundabout	Litsey	Beach	New	100%	\$ 1,000,000	\$ 1,000,000	
	Roundabout	Westport	Beach	New	100%	\$ 1,000,000	\$ 1,000,000	
	Roundabout	Westport	Independence	Retrofit	100%	\$ 2,500,000	\$ 2,500,000	
	Roundabout	Westport	Old Denton	Rebuild	100%	\$ 1,500,000	\$ 1,500,000	
	Roundabout	Westport	Park Vista	Retrofit	100%	\$ 2,500,000	\$ 2,500,000	
Service Area Roadway Project Cost Subtotal							\$ 71,549,681	
Service Area Intersection Project Cost Subtotal							\$ 11,375,000	
2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775	
Total Cost in SERVICE AREA A							\$ 82,948,456	

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.AA – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area AA**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA AA	AA-1	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Eagle	2,190' N of Eagle to Eagle	0.41	100%	\$ 4,079,000	\$ 4,079,000
	AA-2	CCO-L3-T0-NTMS-P0-BOP (130) (W) (1/2)	Intermodal	FM 156 to Old Blue Mound	0.70	100%	\$ 2,804,000	\$ 2,804,000
	AA-3, B-5	NCO-L2-T0-NTMS-P0-BOP (110)	Keller Haslet (1)	965' E of John Day to 3,485' E of John Day	0.48	50%	\$ 4,055,000	\$ 2,027,500
	AA-4	NCO-L2-T0-TWLT-P0-BOP (110)	Keller Haslet (2)	2,825' W of FM 156 to Keller Haslet	0.09	100%	\$ 668,000	\$ 668,000
	AA-5	NCO-L2-T0-TWLT-P0-BOP (110)	Keller Haslet (3)	Keller Haslet to 125' W of FM 156	0.42	100%	\$ 3,379,000	\$ 3,379,000
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Roundabout	Eagle	Heritage	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Intermodal	FM 156	Rebuild	100%	\$ 800,000	\$ 800,000
	Service Area Roadway Project Cost Subtotal							\$ 12,957,500
	Service Area Intersection Project Cost Subtotal							\$ 3,300,000
	2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775
	<b>Total Cost in SERVICE AREA AA</b>							<b>\$ 16,281,275</b>

- These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.B – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area B**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
S A B	B-1	NCO-L2-T0-TWLT-P0-BOP (110)	Eagle (1)	330' E of Graben to Sendera Ranch	0.84	50%	\$ 6,689,000	\$ 3,344,500
	B-2	NCO-L2-T0-TWLT-P0-BOP (110)	Eagle (2)	Sendera Ranch to 4,510' E of Sendera Ranch	0.85	50%	\$ 6,816,000	\$ 3,408,000
	B-3	NCO-L2-T0-TWLT-P0-BOP (110)	Rancho Canyon (1)	Sendera Ranch to Skytop	1.50	100%	\$ 12,007,000	\$ 12,007,000
	B-4	NCO-L2-T0-NTMS-P0-BOP (110)	Rancho Canyon (2)	Cabo to John Day	0.19	100%	\$ 1,436,000	\$ 1,436,000
	AA-3, B-5	NCO-L2-T0-NTMS-P0-BOP (110)	Keller Haslet (1)	965' E of John Day to 3,485' E of John Day	0.48	50%	\$ 4,055,000	\$ 2,027,500
	B-6	CCO-L2-T0-TWLT-P0-BOP (110)	Avondale Haslet (1)	US 287 NBFR to 1,715' E of US 287 NBFR	0.32	100%	\$ 2,004,784	\$ 2,004,784
	B-7	CCO (E) (4U)	Avondale Haslet (2)	1,715' E of US 287 NBFR to Bates Aston	0.47	100%	\$ 3,007,176	\$ 3,007,176
	B-8	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (3)	455' W of Willow Ranch to Willow Springs	0.35	100%	\$ 2,488,000	\$ 2,488,000
	B-9	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (4)	Willow Springs to Sendera Ranch	0.60	100%	\$ 4,232,000	\$ 4,232,000
	B-10	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (5)	Sendera Ranch to 1,015' E of Sendera Ranch	0.19	100%	\$ 1,362,000	\$ 1,362,000
	B-11	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (6)	1,015' E of Sendera Ranch to 1,360' W of John Day	0.68	100%	\$ 4,815,000	\$ 4,815,000
	B-12	NCO-L2-T0-NTMS-P0-BOP (110)	Blue Mound (1)	Blue Mound (Existing) to Willow Springs	1.30	100%	\$ 9,667,000	\$ 9,667,000
	B-13	CCO-L2-T0-NTMS-P0-BOP (110)	Blue Mound (2)	Willow Springs to US 287 SBFM	0.35	100%	\$ 2,572,000	\$ 2,572,000
	B-14	CCO-L2-T0-NTMS-P0-BOP (110)	Blue Mound (3)	US 287 NBFM to Wagley Robertson	0.65	100%	\$ 4,710,000	\$ 4,710,000
	B-15	NCO-L2-T0-TWLT-P0-BOP (110)	Willow Springs (1)	Avondale Haslet to 200' S of Vekda Kay	0.30	100%	\$ 2,310,000	\$ 2,310,000
	B-16	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (2)	200' S of Vekda Kay to 1235' S of Singleton	0.51	100%	\$ 3,588,000	\$ 3,588,000
	B-17	CCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (3)	1235' S of Singleton to US 287 NBFR	0.47	100%	\$ 4,761,000	\$ 4,761,000
	B-18	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (4)	US 287 NBFR to Blue Mound	0.27	100%	\$ 4,605,000	\$ 4,605,000
	B-19	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (5)	Blue Mound to 510' S of Twisting Star	0.94	100%	\$ 6,627,000	\$ 6,627,000
	B-20	NCO-L2-T0-TWLT-P0-BOP (110)	Sendera Ranch (1)	Eagle to Rancho Canyon	0.92	100%	\$ 7,315,000	\$ 7,315,000
	B-21	NCO-L2-T0-TWLT-P0-BOP (110)	Sendera Ranch (2)	Rancho Canyon to Suncatcher	0.53	50%	\$ 4,209,000	\$ 2,104,500
	B-22	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Sendera Ranch (3)	Suncatcher to 275' S of Suncatcher	0.05	100%	\$ 193,000	\$ 193,000
	B-23	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Sendera Ranch (4)	Diamondback to 450' N of Cactus Spine	0.58	100%	\$ 2,159,000	\$ 2,159,000
	B-24	NCO-L2-T0-NTMS-P0-BOP (110)	Sendera Ranch (5)	450' N of Cactus Spine to Avondale Haslet	0.46	100%	\$ 3,421,000	\$ 3,421,000
	B-25	NCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (1)	Avondale Haslet to 5,220' S of Avondale Haslet	0.99	100%	\$ 7,378,000	\$ 7,378,000
	B-26	NCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (2)	5,220' S of Avondale Haslet to Blue Mound	0.62	100%	\$ 4,643,000	\$ 4,643,000
	B-27, C-21	CCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (3)	245' N of US 287 to 725' S of US 287	0.18	50%	\$ 1,407,000	\$ 703,500
	B-28	NCO-L2-T0-TWLT-P0-BOP (110)	John Day (1)	985' S of Eagle to 1,360' S of Eagle	0.07	100%	\$ 567,000	\$ 567,000
	B-29	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	John Day (2)	1,360' S of Eagle to 4,515' S of Eagle	0.60	100%	\$ 2,207,000	\$ 2,207,000
	B-30	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	John Day (3)	4,515' S of Eagle to Keller Haslet	0.78	100%	\$ 2,946,000	\$ 2,946,000
	B-31	CCO-L2-T0-NTMS-P0-BOP (110)	John Day (4)	Keller Haslet to Rancho Canyon	0.33	100%	\$ 3,012,000	\$ 3,012,000
	B-32	NCO-L2-T0-TWLT-P0-BOP (110)	John Day (5)	Rancho Canyon to 990' S of Rancho Canyon	0.19	100%	\$ 1,496,000	\$ 1,496,000
	B-33	NCO-L2-T0-TWLT-P0-BOP (110)	John Day (6)	990' S of Rancho Canyon to Avondale-Haslet Rd	1.10	50%	\$ 8,804,000	\$ 4,402,000
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Roundabout	Avondale Haslet	Road B	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Avondale Haslet	Sendera Ranch	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Blue Mound	Willow Springs	Rebuild	75%	\$ 1,500,000	\$ 1,125,000
		Roundabout	Blue Mound	Wagley Roberson	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Diamondback	Willow Springs	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Roundabout	Eagle	Rancho Canyon	New	50%	\$ 1,000,000	\$ 500,000
		Roundabout	Rancho Canyon	Sendera Ranch	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Rancho Canyon	John Day	New	75%	\$ 1,000,000	\$ 750,000
		Roundabout	Sendera Ranch	John Day	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Sendera Ranch	Sendera Ranch	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Service Area Roadway Project Cost Subtotal						
	Service Area Intersection Project Cost Subtotal							\$ 13,375,000
	2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775
	Total Cost in SERVICE AREA B							\$134,917,734

- These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.C – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area C**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA C	C-1	CCO-L2-T0-TWLT-P0-BOP (110)	Keller Hicks (1)	Harmon to Harmon (Future)	0.22	50%	\$ 1,719,000	\$ 859,500
	C-2	NCO-L2-T0-NTMS-P0-BOP (110)	Keller Hicks (2)	Harmon (Future) to IH-35 W SBFR	0.33	50%	\$ 2,354,000	\$ 1,177,000
	C-3	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (1)	Wagley Robertson to 625' E of Wagley Robertson	0.12	50%	\$ 888,000	\$ 444,000
	C-4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (2)	625' E Wagley Robertson to US 287 SBFR	0.87	100%	\$ 8,790,000	\$ 8,790,000
	C-5	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (3)	US 287 SBFR to FM 156	0.52	100%	\$ 4,026,000	\$ 4,026,000
	C-6	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (4)	FM 156 to Harmon	1.00	100%	\$ 7,515,000	\$ 7,515,000
	C-7	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Golden Triangle (1)	470' E of Misty Redwood to Golden Heights	0.25	100%	\$ 1,181,000	\$ 1,181,000
	C-8	CCO-L2-T0-NTMS-P0-BOP (110)	Golden Triangle (2)	Golden Heights to Harmon (Future)	0.11	100%	\$ 863,000	\$ 863,000
	C-9	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Golden Triangle (3)	Harmon (Future) to 615' E of Harmon	0.12	100%	\$ 943,000	\$ 943,000
	C-10	NCO-L3-T0-NTMS-P0-BOP (130)	Golden Triangle (4)	615' E of Harmon to IH-35W	0.27	100%	\$ 2,531,000	\$ 2,531,000
	C-11	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (6)	Wagley Robertson to Wagley Robertson (Future)	0.08	100%	\$ 677,000	\$ 677,000
	C-12	NCO-L3-T0-NTMS-P0-BLS (130) (W)	Heritage Trace (7)	Wagley Robertson (Future) to Copper Crossing	1.08	100%	\$ 10,508,000	\$ 10,508,000
	C-13	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Heritage Trace (8)	Copper Crossing to FM 156	0.36	100%	\$ 658,000	\$ 658,000
	C-14	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Heritage Trace (9)	Blue Mound to US 287 SBFR	0.53	100%	\$ 6,290,000	\$ 6,290,000
	C-15	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Heritage Trace (10)	US 287 to 1,145' E of US 287	0.22	100%	\$ 4,612,000	\$ 4,612,000
	C-16	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Heritage Trace (11)	135' W of Creosote to Harmon	0.39	100%	\$ 724,000	\$ 724,000
	C-17	NCO-L2-T0-NTMS-P0-BLS (110)	N. Tarrant (1)	US 287 SBFR to US 287 NBFR	0.15	100%	\$ 5,482,000	\$ 5,482,000
	C-18	CCO-L3-T0-NTMS-P0-BLB (130)	N. Tarrant (2)	US 287 NBFR to 335' E of US 287 NBFR	0.06	100%	\$ 640,000	\$ 640,000
	C-19	NCO-L2-T0-NTMS-P0-BOP (110)	Bailey Boswell (4)	FM 156 to Horseman	0.69	100%	\$ 7,450,000	\$ 7,450,000
	C-20, F-1	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Basswood	Candler to IH-35 W	0.31	50%	\$ 571,000	\$ 285,500
	C-21, B-27	CCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (3)	245' N of US 287 to 725' S of US 287	0.18	50%	\$ 5,757,000	\$ 2,878,500
	C-22	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Wagley Robertson (4)	565' N of Hawks Landing to Hawks Landing	0.11	100%	\$ 405,000	\$ 405,000
	C-23	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Wagley Robertson (5)	Hawks Landing to 310' N of Bonds Ranch	0.41	100%	\$ 1,501,000	\$ 1,501,000
	C-24, E-18	NCO-L2-T0-TWLT-P0-BOP (110)	Wagley Robertson (6)	690' N of Quicksilver to 1795' S of Bent Oak	0.63	50%	\$ 4,748,000	\$ 2,374,000
	C-25	NCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (7)	735' N of Heritage Trace to Heritage Trace	0.14	100%	\$ 1,040,000	\$ 1,040,000
	C-26	NCO-L1-T0-TWLT-P0-BOP (80)	Wagley Robertson (8)	Heritage Trace to 1465' S of Heritage Trace	0.28	100%	\$ 1,575,000	\$ 1,575,000
	C-27, E-19	NCO-L1-T0-TWLT-P0-BOP (80)	Wagley Robertson (9)	145' N of Mystic River to 715' S of Mystic River	0.16	50%	\$ 878,000	\$ 439,000
	C-28	CCO-L1-T0-TWLT-P0-BOP (80)	Harmon (1)	Keller Hicks to 2475' S of Keller Hicks	0.47	100%	\$ 2,749,000	\$ 2,749,000
	C-29	CCO-L1-T0-TWLT-P0-BOP (80)	Harmon (2)	2,475' S of Keller Hicks to 640' N of Golden Triangle	0.16	50%	\$ 902,000	\$ 451,000
	C-30	CCO-L1-T0-TWLT-P0-BOP (80)	Harmon (3)	640' N of Golden Triangle to Golden Triangle	0.12	100%	\$ 712,000	\$ 712,000
	C-31	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Harmon (4)	Bonds Ranch to Heritage Trace	0.65	100%	\$ 2,407,000	\$ 2,407,000
	C-32	NCO-L2-T0-TWLT-P0-BOP (110)	Harmon (5)	Heritage Trace to US 287 NBFR	0.99	100%	\$ 7,846,000	\$ 7,846,000
	C-33	NCO-L2-T0-TWLT-P0-BOP (110)	Harmon (6)	US 287 NBFR to US 287 SBFR	0.14	100%	\$ 5,500,000	\$ 5,500,000
	C-34	NCO-L2-T0-NTMS-P0-BLS (110)	Harmon (7)	US 287 SBFR to Harmon	0.15	100%	\$ 1,140,000	\$ 1,140,000
	C-35	NCO-L2-T0-NTMS-P0-BLS (110)	Harmon (8)	330' W of Bailey Boswell to Bailey Boswell	0.06	100%	\$ 477,000	\$ 477,000
	C-36	NCO-L2-T0-TWLT-P0-BOP (110)	Bailey Boswell (5)	Harmon to Horseman	0.81	100%	\$ 6,499,000	\$ 6,499,000
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Turn Lane Improvements	Bailey Boswell	FM 156	Rebuild	50%	\$ 600,000	\$ 300,000
		Turn Lane Improvements	Bonds Ranch	FM 156	Rebuild	75%	\$ 600,000	\$ 450,000
		Roundabout	Bonds Ranch	Harmon	Rebuild	75%	\$ 1,500,000	\$ 1,125,000
		Roundabout	Golden Triangle	Harmon	New	100%	\$ 1,000,000	\$ 1,000,000
		Turn Lane Improvements	Harmon	FM 156	Retrofit	100%	\$ 180,000	\$ 180,000
		Roundabout	Harmon	Bailey Boswell	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Harmon	US 287 NBFR	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Harmon	US 287 SBFR	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Heritage Trace	Harmon	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Heritage Trace	Wagley Robertson	New	100%	\$ 1,000,000	\$ 1,000,000
		Turn Lane Improvements	Heritage Trace	FM 156	Rebuild	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	N. Tarrant	US 287 SBFR	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	N. Tarrant	US 287 NBFR	New	100%	\$ 1,000,000	\$ 1,000,000
Service Area Roadway Project Cost Subtotal								\$103,649,500
Service Area Intersection Project Cost Subtotal								\$ 11,555,000
2017 Roadway Impact Fee Study Cost Per Service Area								\$ 23,775
Total Cost in SERVICE AREA C								\$115,228,275

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.
- HOD: Hills of Denton

**Table 4.D – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area D**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area	
SA D	A-15, D-1	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (1)	485' E of Lilybrook to N Caylor	0.29	50%	\$ 2,086,000	\$ 1,043,000	
	A-16, D-2	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (2)	N Caylor to 375' E of N Caylor	0.07	50%	\$ 504,000	\$ 252,000	
	A-17, D-3	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (3)	375' E of N Caylor to Park Vista	0.22	50%	\$ 5,241,058	\$ 2,620,529	
	A-18, D-4	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (4)	Park Vista to 355' E of Park Vista	0.07	50%	\$ 1,703,344	\$ 851,672	
	A-19, D-5	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Timberland (5)	355' E of Park Vista to 425' E of Harvest Oaks	0.46	50%	\$ 1,694,000	\$ 847,000	
	A-20, D-6	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (6)	425' E of Harvest Oaks to US 377	0.10	50%	\$ 1,447,000	\$ 723,500	
	D-7	NCO-L1-T0-TWLT-P0-BOP (80)	Keller Hicks (1)	Old Denton to 600' W of Ridgeview	1.03	100%	\$ 5,530,000	\$ 5,530,000	
	D-8	NCO (E)	Keller Hicks (2)	600' W of Ridgeview to Alta Vista	0.44	100%	\$ 1,071,577	\$ 1,071,577	
	D-9	CCO (E)	Keller Hicks (3)	Alta Vista to Park Vista	0.52	100%	\$ 5,763,683	\$ 5,763,683	
	D-10	CCO-L1-T0-TWLT-P0-BOP (80)	Keller Hicks (4)	Park Vista to Katy	1.00	100%	\$ 5,577,000	\$ 5,577,000	
	D-11	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (5)	IH-35 W to Old Denton	0.50	100%	\$ 2,042,000	\$ 2,042,000	
	D-12	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (6)	Old Denton to Beach	1.05	100%	\$ 4,259,000	\$ 4,259,000	
	D-13	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (7)	Beach to Park Vista	0.99	100%	\$ 4,078,000	\$ 4,078,000	
	D-14	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (8)	Park Vista to 2,130' E of Park Vista	0.40	100%	\$ 1,629,000	\$ 1,629,000	
	D-15	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (9)	2,130' E of Park Vista to Katy	0.63	100%	\$ 2,607,000	\$ 2,607,000	
	D-16	CCO-L2-T0-TWLT-P0-BOP (110)	Kroger	1,650' E of Ray White to US 377	0.65	100%	\$ 5,748,000	\$ 5,748,000	
	D-17	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	N. Tarrant (3)	IH-35 W to Riverside	0.65	100%	\$ 1,194,000	\$ 1,194,000	
	D-18	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	N. Tarrant (4)	Riverside to Beach	1.02	100%	\$ 1,880,000	\$ 1,880,000	
	D-19	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	N. Tarrant (5)	Beach to Park Vista	1.05	100%	\$ 1,920,000	\$ 1,920,000	
	D-20	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	N. Tarrant (6)	Park Vista to US 377	0.81	100%	\$ 1,485,000	\$ 1,485,000	
	D-21	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Summerfields	Riverside to Cannonwood	0.18	100%	\$ 651,000	\$ 651,000	
	D-22	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (1)	SH 170 EBFR to 180' N of Hidden Valley	0.18	100%	\$ 699,000	\$ 699,000	
	D-23	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (2)	180' N of Hidden Valley to 135' S of San Fernando	0.17	100%	\$ 628,000	\$ 628,000	
	D-24	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (3)	135' S of San Fernando to 325' N of Sawtimber	0.17	100%	\$ 628,000	\$ 628,000	
	D-25	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (4)	Keller Hicks to 800' N of Golden Triangle	0.31	100%	\$ 1,172,000	\$ 1,172,000	
	D-26	CCO-L2-T0-NTMS-P0-BOP (110)	Riverside (5)	800' N of Golden Triangle to Golden Triangle	0.15	100%	\$ 1,100,000	\$ 1,100,000	
	D-27	NCO-L2-T0-NTMS-P0-BOP (110)	Riverside (6)	Prairie Vista to Shiver	0.46	100%	\$ 1,378,007	\$ 1,378,007	
	D-28	NCO-L2-T0-NTMS-P0-BOP (110)	Riverside (7)	Shiver to N. Tarrant	0.52	100%	\$ 3,710,000	\$ 3,710,000	
	D-29	NCO-L2-T0-TWLT-P0-BOP (110)	Riverside (8)	N. Tarrant to Thompson	0.36	100%	\$ 2,691,000	\$ 2,691,000	
	D-30	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (9)	Thompson to Summerfields	0.36	100%	\$ 2,307,628	\$ 2,307,628	
	D-31	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (10)	Summerfields to Old Denton Rd	0.29	100%	\$ 1,126,000	\$ 1,126,000	
	A-29, D-32	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Beach (7)	SH 170 EBFR to 2,045' S of SH 170 EBFR	0.39	50%	\$ 3,415,000	\$ 1,707,500	
	A-30, D-33	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Beach (8)	410' N of Saratoga Downs to Timberland	0.70	50%	\$ 1,285,000	\$ 642,500	
	D-34	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (9)	Timberland to Keller Hicks	1.04	100%	\$ 1,684,794	\$ 1,684,794	
	D-35	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (10)	Keller Hicks to Golden Triangle	0.75	100%	\$ 4,539,651	\$ 4,539,651	
	D-36	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (11)	Vista Meadows to Heritage Trace	0.40	100%	\$ 6,344,578	\$ 6,344,578	
	D-37	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (12)	Heritage Trace to 155' S of Springview Ln	1.11	100%	\$ 2,346,625	\$ 2,346,625	
	D-38	NCO-L2-T0-NTMS-P0-BOP (110)	Park Vista (4)	Timberland to Caylor	0.17	100%	\$ 4,323,873	\$ 4,323,873	
	D-39	NCO-L2-T0-TWLT-P0-BOP (110)	Park Vista (5)	Keller Hicks to Golden Triangle	0.51	100%	\$ 457,671	\$ 457,671	
	D-40	NCO-L2-T0-TWLT-P0-BOP (110)	Park Vista (6)	Golden Triangle to Ray White	0.51	100%	\$ 6,089,000	\$ 6,089,000	
	D-41	NCO-L2-T0-TWLT-P0-BOP (110)	Park Vista (7)	Wyndbrook to Mirage	0.76	100%	\$ 5,752,000	\$ 5,752,000	
	D-42	NCO (E)	Park Vista (8)	Shiver to N. Tarrant	0.49	100%	\$ 2,059,673	\$ 2,059,673	
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area	
		Turn Lane Improvements	Beach	Timberland	Retrofit	75%	\$ 640,000	\$ 480,000	
		Turn Lane Improvements	Beach	Keller Hicks	Retrofit	100%	\$ 770,000	\$ 770,000	
		Turn Lane Improvements	Beach	N. Tarrant	Retrofit	100%	\$ 705,000	\$ 705,000	
		Turn Lane Improvements	Beach	Basswood	Retrofit	50%	\$ 590,000	\$ 295,000	
		Turn Lane Improvements	US 377	N. Tarrant	Retrofit	50%	\$ 360,000	\$ 180,000	
		Turn Lane Improvements	US 377	Basswood	Retrofit	25%	\$ 475,000	\$ 118,750	
		Turn Lane Improvements	US 377	Timberland	Rebuild	25%	\$ 200,000	\$ 50,000	
		Roundabout	Riverside	Timberland	Retrofit	100%	\$ 2,500,000	\$ 2,500,000	
		Turn Lane Improvements	Riverside	Golden Triangle	Rebuild	100%	\$ 300,000	\$ 300,000	
		Roundabout	Park Vista	Keller Hicks	Rebuild	100%	\$ 1,500,000	\$ 1,500,000	
		Turn Lane Improvements	Park Vista	Golden Triangle	Rebuild	100%	\$ 800,000	\$ 800,000	
		Turn Lane Improvements	Park Vista	Heritage Trace	Retrofit	100%	\$ 295,000	\$ 295,000	
		Turn Lane Improvements	Park Vista	N. Tarrant	Retrofit	100%	\$ 705,000	\$ 705,000	
		Turn Lane Improvements	Park Vista	Basswood	Retrofit	50%	\$ 460,000	\$ 230,000	
		Turn Lane Improvements	Riverside	N. Tarrant	Rebuild	100%	\$ 800,000	\$ 800,000	
		Roundabout	Riverside	Summerfields	Rebuild	100%	\$ 1,500,000	\$ 1,500,000	
		Turn Lane Improvements	Riverside	Basswood	Retrofit	50%	\$ 820,000	\$ 410,000	
		Service Area Project Cost Subtotal							\$103,160,461
		Service Area Intersection Project Cost Subtotal							\$ 11,638,750
	2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775	
	Total Cost in SERVICE AREA D							\$114,822,986	

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- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.



**Table 4.E – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area E**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA E	E-1	NCO-L2-T0-TWLT-P0-BOP (110)	Eagle Mountain (1)	6,390' W of Fleming Ranch to Fleming Ranch	1.21	100%	\$ 9,658,000	\$ 9,658,000
	E-2	NCO-L2-T0-NTMS-P0-BOP (110)	Eagle Mountain (2)	Fleming Ranch to BUS 287	1.1	100%	\$ 8,233,000	\$ 8,233,000
	E-3	NCO-L2-T0-NTMS-P0-BLS (110)	Boat Club	1,555' W of Fleming Ranch to Fleming Ranch	0.29	100%	\$ 2,242,000	\$ 2,242,000
	E-4	NCO-L3-T0-NTMS-P0-BLS (130) (W)	Heritage Trace (1)	Fleming Ranch to 5,790' E of Fleming Ranch	1.1	100%	\$ 8,820,000	\$ 8,820,000
	E-5	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (2)	Old Decatur to BUS 287	0.06	100%	\$ 516,000	\$ 516,000
	E-6	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (3)	BUS 287 to Willow Springs	0.19	100%	\$ 2,395,000	\$ 2,395,000
	E-7	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (4)	Willow Springs to 3,005' E of Willow Springs	0.57	100%	\$ 5,017,000	\$ 5,017,000
	E-8	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (5)	3,005' E of Willow Springs to 275' W of Wagley Robertson	0.56	50%	\$ 4,968,000	\$ 2,484,000
	E-9	NCO-L2-T0-NTMS-P0-BOP (110)	Bailey Boswell (1)	FM 1220 to 2,020' E of FM 1220	0.38	50%	\$ 2,709,000	\$ 1,354,500
	E-10	NCO-L2-T0-NTMS-P0-BOP (110)	Bailey Boswell (2)	35' W of Bowman Roberts to 440' E of Wind River	1.21	100%	\$ 8,578,000	\$ 8,578,000
	E-11, G-1	NCO-L2-T0-NTMS-P0-BOP (110)	WJ Boaz	FM 1220 to Old Decatur Rd	2.05	50%	\$ 14,507,000	\$ 7,253,500
	E-12	NCO (E)	Robertson	680' W of Lake Country to Boat Club	0.87	100%	\$ 6,105,868	\$ 6,105,868
	E-13	NCO-L3-T0-NTMS-P0-BLS (130) (W)	Fleming Ranch	Bonds Ranch to 1,670' S of Heritage Trace	2.68	100%	\$ 21,595,000	\$ 21,595,000
	E-14	NCO-L1-T0-TWLT-P0-BOP (80)	Edward Green	Robertson to 1,995' S of Robertson	0.38	100%	\$ 2,145,000	\$ 2,145,000
	E-15	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (6)	1,725' S of Bonds Ranch to 3,290' S of Bonds Ranch	0.3	100%	\$ 2,213,000	\$ 2,213,000
	E-16	CCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (7)	6570' N of Heritage Trace to Heritage Trace	1.24	100%	\$ 9,521,000	\$ 9,521,000
	E-17	NCO-L1-T0-TWLT-P0-BOP (80)	Old Decatur (1)	680' N of Milo to 195' S of Millstone	0.17	100%	\$ 898,000	\$ 898,000
	C-24, E-18	NCO-L2-T0-TWLT-P0-BOP (110)	Wagley Robertson (6)	690' N of Quicksilver to 1,795' S of Bent Oak	0.63	50%	\$ 4,748,000	\$ 2,374,000
	C-27, E-19	NCO-L1-T0-TWLT-P0-BOP (80)	Wagley Robertson (9)	145' N of Mystic River to 715' S of Mystic River	0.16	50%	\$ 878,000	\$ 439,000
	Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost
		Turn Lane Improvements	Eagle Mountain	BUS 287	Rebuild	100%	\$ 400,000	\$ 400,000
		Roundabout	Eagle Mountain	Fleming Ranch	New	100%	\$ 1,000,000	\$ 1,000,000
		Turn Lane Improvements	Heritage Trace	BUS 287	Rebuild	100%	\$ 800,000	\$ 800,000
		Turn Lane Improvements	Heritage Trace	Willow Springs	New	100%	\$ 510,000	\$ 510,000
		Turn Lane Improvements	Heritage Trace	Fleming Ranch	New	100%	\$ 1,020,000	\$ 1,020,000
		Roundabout	Robertson	Edward Green	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	Robertson	FM 1220	Retrofit	50%	\$ 180,000	\$ 90,000
		Turn Lane Improvements	WJ Boaz	FM 1220	Rebuild	75%	\$ 500,000	\$ 375,000
		Turn Lane Improvements	WJ Boaz	Old Decatur	Rebuild	25%	\$ 500,000	\$ 125,000
Service Area Roadway Project Cost Subtotal								\$101,402,868
Service Area Intersection Project Cost Subtotal								\$ 5,820,000
2017 Roadway Impact Fee Study Cost Per Service Area								\$ 23,775
Total Cost in SERVICE AREA E								\$107,246,643

- These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.F – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area F**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA F	C-20, F-1	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Basswood	Candler to IH-35 W	0.31	50%	\$ 571,000	\$ 285,500
	F-2	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Western Center (1)	FM 156 to 430' E of FM 156	0.08	100%	\$ 625,000	\$ 625,000
	F-3	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (2)	430' E of FM 156 to Robert W Downing	0.51	100%	\$ 951,000	\$ 951,000
	F-4	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (3)	Riverside to 980' E of Riverside	0.19	100%	\$ 341,000	\$ 341,000
	F-5	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (4)	590' W of Bayberry to Spoonwood	0.42	100%	\$ 780,000	\$ 780,000
	F-6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (5)	Spoonwood to Beach	0.19	100%	\$ 360,000	\$ 360,000
	F-7	NCO-L2-T0-NTMS-P0-BOP (110)	Cantrell Sansom (1)	455' W of Nafex to 610' E of Nafex	0.20	100%	\$ 1,430,000	\$ 1,430,000
	F-8	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Cantrell Sansom (2)	610' E of Nafex to 190' E of Deerfoot	0.22	100%	\$ 805,000	\$ 805,000
	F-9	NCO-L2-T0-NTMS-P0-BOP (110)	Cantrell Sansom (3)	470' E of Mark IV to Old Denton	0.22	100%	\$ 1,536,000	\$ 1,536,000
	F-10	NCO-L2-T0-NTMS-P0-BOP (110)	Cantrell Sansom (4)	Old Denton to IH-35 W SBFR	0.19	100%	\$ 1,443,000	\$ 1,443,000
	F-11	CCO-L1-T0-TWLT-P0-BOP (80)	Northeast	Superior to Mark IV	0.20	100%	\$ 1,595,000	\$ 1,595,000
	F-12	CCO-L2-T0-TWLT-P0-BOP (110)	Meacham (1)	635' E of FM 156 to RR Bridge	0.40	100%	\$ 3,128,000	\$ 3,128,000
	F-13	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Meacham (2)	Deen to Mark IV	0.26	100%	\$ 975,000	\$ 975,000
	F-14	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Meacham (3)	Mark IV to 1335' E of Mark IV	0.25	100%	\$ 957,000	\$ 957,000
	F-15	CCO-L1-T0-TWLT-P0-BOP (80)	Lone Star (1)	400' S of Northeast to 555' N of Franklin	0.69	100%	\$ 5,471,000	\$ 5,471,000
	F-16	CCO-L1-T0-TWLT-P0-BOP (80)	Lone Star (2)	145' N of Meacham to Meacham	0.03	100%	\$ 162,000	\$ 162,000
	F-17	NCO (E)	Riverside (11)	Stone Creek to 180' N of Redwood Creek	0.19	100%	\$ 1,377,102	\$ 1,377,102
	F-18	CCO-L1-T0-TWLT-P0-BOP (80)	Sylvania	Melody Hills to Quorum	0.32	100%	\$ 1,793,000	\$ 1,793,000
	F-19	CCO-L3-T0-NTMS-P0-BLB (130)	Beach (13)	Fossil Creek to IH-820 WBFR	0.68	100%	\$ 7,598,454	\$ 7,598,454
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Turn Lane Improvements	Beach	Basswood	Retrofit	50%	\$ 590,000	\$ 295,000
		Roundabout	Cantrell Sansom	Mark IV	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	US 377	Basswood	Retrofit	25%	\$ 475,000	\$ 118,750
		Turn Lane Improvements	Fossil Creek	Beach	Retrofit	50%	\$ 230,000	\$ 115,000
		Roundabout	Great Southwest	Lone Star	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Great Southwest	Mark IV	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Roundabout	Great Southwest	Northeast	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Roundabout	Long	Sylvania	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Long	Deen	Retrofit	50%	\$ 770,000	\$ 385,000
		Turn Lane Improvements	Meacham	Sylvania	Retrofit	100%	\$ 460,000	\$ 460,000
		Turn Lane Improvements	Meacham	Mark IV	Rebuild	100%	\$ 200,000	\$ 200,000
		Turn Lane Improvements	Meacham	FM 156	Retrofit	100%	\$ 950,000	\$ 950,000
		Roundabout	Northeast	Mark IV	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Northeast	Atlee	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Roundabout	Northern Cross	Sylvania	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Park Vista	Basswood	Retrofit	50%	\$ 460,000	\$ 230,000
		Turn Lane Improvements	Riverside	Basswood	Retrofit	50%	\$ 820,000	\$ 410,000
		Turn Lane Improvements	Western Center	Robert W Downing	Retrofit	100%	\$ 770,000	\$ 770,000
	Service Area Roadway Project Cost Subtotal							\$ 31,613,056
	Service Area Intersection Project Cost Subtotal							\$ 21,933,750
	2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775
	Total Cost in SERVICE AREA F							\$ 53,570,581

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- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.G – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area G**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA G	E-11, G-1	NCO-L2-T0-NTMS-P0-BOP (110)	WJ Boaz	FM 1220 to Old Decatur Rd	2.05	50%	\$ 14,507,000	\$ 7,253,500
	G-2	NCO-L2-T0-TWLT-P0-BOP (110)	Old Decatur (1)	Marine Creek to Old Decatur	0.04	100%	\$ 306,298	\$ 306,298
	G-3	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (1)	FM 1220 to Huffines	0.87	100%	\$ 6,700,000	\$ 6,700,000
	G-4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (2)	Huffines to Chesterfield	0.34	100%	\$ 2,562,000	\$ 2,562,000
	G-5	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (3)	360' E of Crystal Lake to Stonewater Bend	0.20	100%	\$ 1,477,000	\$ 1,477,000
	G-6	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (4)	Stonewater Bend to Marine Creek	0.58	100%	\$ 4,426,000	\$ 4,426,000
	G-7	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Longhorn	Marine Creek to Old Decatur	0.24	100%	\$ 1,810,000	\$ 1,810,000
	G-8	NCO-L1-T0-TWLT-P0-BOP (80)	Ten Mile Bridge (1)	3,075' W of Hodgkins to Hodgkins	0.58	100%	\$ 3,137,000	\$ 3,137,000
	G-9	NCO-L2-T0-NTMS-P0-BOP (110)	Ten Mile Bridge (2)	Hodgkins to FM 1220	0.49	100%	\$ 3,495,000	\$ 3,495,000
	G-10	NCO-L1-T0-TWLT-P0-BOP (80)	Ten Mile Bridge (3)	FM 1220 to Bowman Roberts	0.55	100%	\$ 2,990,000	\$ 2,990,000
	G-11	NCO-L1-T0-TWLT-P0-BOP (80)	Ten Mile Bridge (4)	Westgate to Huffines	0.41	100%	\$ 2,194,000	\$ 2,194,000
	G-12	NCO-L1-T0-TWLT-P0-BOP (80)	Edward Geren (2)	4,570' N of Ten Mile Bridge to Ten Mile Bridge	0.87	100%	\$ 4,913,000	\$ 4,913,000
	G-13	NCO-L1-T0-TWLT-P0-BOP (80)	Hodgkins	Ten Mile Bridge to Hatch	1.00	100%	\$ 5,403,000	\$ 5,403,000
	G-14	NCO-L2-T0-NTMS-P0-BOP (110)	Marine Creek (1)	Old Decatur to 620' S of Old Decatur	0.12	100%	\$ 765,744	\$ 765,744
	G-15	NCO-L2-T0-NTMS-P0-BOP (110)	Marine Creek (2)	620' S of Old Decatur Rd to Cromwell Marine Creek	0.23	100%	\$ 1,531,489	\$ 1,531,489
	G-16	NCO-L2-T0-NTMS-P0-BOP (110)	Marine Creek (3)	Cromwell Marine Creek to Longhorn	0.25	100%	\$ 1,608,063	\$ 1,608,063
	G-17	CCO (E)	Marine Creek (4)	Longhorn to 410' S of Goodland	0.52	100%	\$ 3,445,850	\$ 3,445,850
	G-18	NCO-L1-T0-TWLT-P0-BOP (80)	Marine Creek (5)	Angle to FM 1220	1.01	100%	\$ 6,029,000	\$ 6,029,000
	G-19	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Old Decatur (2)	River Rock to IH-820 WBFR	0.30	100%	\$ 1,096,000	\$ 1,096,000
	G-20	NCO-L2-T0-NTMS-P0-BOP (110)	Old Decatur (3)	IH-820 EBFR to 890' N Of Angle	0.63	100%	\$ 4,481,000	\$ 4,481,000
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Turn Lane Improvements	Cromwell Marine Creek	FM 1220	Rebuild	50%	\$ 200,000	\$ 100,000
		Turn Lane Improvements	Cromwell Marine Creek	Huffines	Rebuild	100%	\$ 500,000	\$ 500,000
		Turn Lane Improvements	Longhorn	Old Decatur	Rebuild	75%	\$ 300,000	\$ 225,000
		Roundabout	Longhorn	Marine Creek	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	Marine Creek	Old Decatur	New	100%	\$ 340,000	\$ 340,000
		Roundabout	Marine Creek	Angle	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	Robertson	FM 1220	Retrofit	50%	\$ 180,000	\$ 90,000
		Roundabout	Ten Mile Bridge	Huffines	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	Ten Mile Bridge	FM 1220	Rebuild	100%	\$ 1,200,000	\$ 1,200,000
		Roundabout	Ten Mile Bridge	Hodgkins	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	WJ Boaz	FM 1220	Rebuild	25%	\$ 500,000	\$ 125,000
		Turn Lane Improvements	WJ Boaz	Old Decatur	Rebuild	25%	\$ 500,000	\$ 125,000
							<b>Service Area Roadway Project Cost Subtotal</b>	<b>\$ 65,623,944</b>
							<b>Service Area Intersection Project Cost Subtotal</b>	<b>\$ 8,705,000</b>
							<b>2017 Roadway Impact Fee Study Cost Per Service Area</b>	<b>\$ 23,775</b>
							<b>Total Cost in SERVICE AREA G</b>	<b>\$ 74,352,719</b>

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- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.L – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area L**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA L	L-1	NCO (E)	1st (1)	Beach to 1,345' E of Beach	0.25	100%	\$ 457,890	\$ 457,890
	L-2	NCO (E)	1st (2)	1,345' E of Beach to 5,290' E of Beach	0.75	100%	\$ 1,343,143	\$ 1,343,143
	L-3	NCO (E)	1st (3)	3,630' W of Oakland to Oakland	0.69	100%	\$ 1,251,565	\$ 1,251,565
	Intersection Improvement	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Turn Lane Improvements	1st	Beach	Retrofit	50%	\$ 180,000	\$ 90,000
		Turn Lane Improvements	Bridge	Bridgewood	Retrofit	100%	\$ 180,000	\$ 180,000
		Turn Lane Improvements	Randol Mill	Bridgewood	Retrofit	100%	\$ 590,000	\$ 590,000
		Turn Lane Improvements	Randol Mill	Woodhaven	Retrofit	100%	\$ 360,000	\$ 360,000
		Roundabout	1st	Oakland	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Service Area Roadway Project Cost Subtotal							\$ 3,052,598
	Service Area Intersection Project Cost Subtotal							\$ 3,720,000
	2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775
	Total Cost in SERVICE AREA L							\$ 6,796,373

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.M – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area M**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
S A M	M-1	CCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (1)	SH 10 to Raider	0.28	100%	\$ 1,550,000	\$ 1,550,000
	M-2	CMU-L2-T0-TWLT-P0-BLC (110)	Trinity (1)	IH-820 NBFR to 1,550' W of Precinct Line	1.35	100%	\$ 11,416,000	\$ 11,416,000
	M-3	CMU-L2-T0-NTMS-P0-BLC (110)	Trinity (2)	1,550' W of Precinct Line to Precinct Line	0.29	100%	\$ 647,647	\$ 647,647
	M-4	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (3)	Precinct Line to 545' E of Precinct Line	0.10	100%	\$ 215,882	\$ 215,882
	M-5	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (4)	545' E of Precinct Line to Norwood	0.75	100%	\$ 8,238,000	\$ 8,238,000
	M-6	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (5)	Norwood to 1,500' E of Norwood	0.28	100%	\$ 3,231,000	\$ 3,231,000
	M-7	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (6)	1,565' W of Bell Spur to Bell Spur	0.30	100%	\$ 2,319,000	\$ 2,319,000
	M-8	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (7)	Bell Spur to 2,950' E of Bell Spur	0.56	100%	\$ 6,714,000	\$ 6,714,000
	M-9	NCO-L1-T0-TWLT-P0-BLC (80)	Randol Mill (1)	Stoneview to Sandy	0.95	100%	\$ 6,413,000	\$ 6,413,000
	M-10	NCO-L1-T0-TWLT-P0-BLC (80)	Randol Mill (2)	Sandy to Cooks	0.55	100%	\$ 3,571,000	\$ 3,571,000
	M-11	NCO-L2-T0-NTMS-P0-BLS (110)	Randol Mill (3)	Cooks to Lowery	1.02	100%	\$ 7,798,000	\$ 7,798,000
	M-12	NCO-L2-T0-NTMS-P0-BLS (110)	Randol Mill (4)	Lowery to 880' E of Lowery	0.17	100%	\$ 1,204,000	\$ 1,204,000
	M-13	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)	Randol Mill (5)	880' E of Lowery to Racquet Club	0.25	100%	\$ 942,000	\$ 942,000
	M-14	NCO-L1-T0-TWLT-P0-BOP (80)	Sandy (1)	Randol Mill to 370' S of Randol Mill	0.07	100%	\$ 639,000	\$ 639,000
	M-15	NCO-L1-T0-TWLT-P0-BOP (80)	Sandy (2)	370' S of Randol Mill to John T White	0.98	100%	\$ 5,289,000	\$ 5,289,000
	M-16	NCO-L2-T0-TWLT-P0-BOP (110)	Sandy (3)	John T. White to IH-30	0.45	100%	\$ 5,396,000	\$ 5,396,000
	M-17	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (1)	1825' N of Trinity to Trinity	0.35	100%	\$ 743,594	\$ 743,594
	M-18	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (2)	Trinity to 1,955' S of Trinity	0.37	100%	\$ 791,568	\$ 791,568
	M-19	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (3)	1,955' S of Trinity to Randol Mill	1.36	100%	\$ 11,987,000	\$ 11,987,000
	M-20	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (4)	Randol Mill (Existing) to 1,815' S of Randol Mill (Existing)	0.34	100%	\$ 2,938,000	\$ 2,938,000
	M-21	NCO-L1-T0-TWLT-P0-BOP (80)	Cooks (1)	1,815' S of Randol Mill to 690' S of Lowery	0.54	100%	\$ 3,058,000	\$ 3,058,000
	M-22	CCO-L1-T0-TWLT-P0-BOP (80)	Norwood (1)	SH 10 to Railroad	0.24	100%	\$ 1,993,000	\$ 1,993,000
	M-23	CCO-L1-T0-TWLT-P0-BOP (80)	Norwood (2)	Railroad to Trinity	0.23	100%	\$ 1,000,000	\$ 1,000,000
	M-24	NCO-L2-T0-NTMS-P0-BOP (110)	Greenbelt Rd	Trinity to 8885' S of Trinity	1.68	100%	\$ 14,247,000	\$ 14,247,000
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Roundabout	John T White	Cooks	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	John T White	Randol Mill	Retrofit	100%	\$ 720,000	\$ 720,000
		Roundabout	John T White	Sandy	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Precinct Line	Randol Mill	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Randol Mill	Sandy	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	Trinity	Bell Spur	Rebuild	100%	\$ 100,000	\$ 100,000
		Turn Lane Improvements	Trinity	Norwood	Rebuild	100%	\$ 300,000	\$ 300,000
Service Area Roadway Project Cost Subtotal								<b>\$102,341,691</b>
Service Area Intersection Project Cost Subtotal								<b>\$ 7,620,000</b>
2017 Roadway Impact Fee Study Cost Per Service Area								<b>\$ 23,775</b>
<b>Total Cost in SERVICE AREA M</b>								<b>\$109,985,466</b>

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- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.N – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area N**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA N	N-1	CCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (2)	Raider to House Anderson	0.69	100%	\$ 3,827,000	\$ 3,827,000
	N-2	CCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (3)	House Anderson to 1,755' E of House Anderson	0.33	100%	\$ 1,851,000	\$ 1,851,000
	N-3	NCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (4)	1,665' W of FM 157 to FM 157	0.32	100%	\$ 1,700,000	\$ 1,700,000
	N-4	NCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (5)	FM 157 to S. Main	1.01	100%	\$ 5,960,000	\$ 5,960,000
	N-5	NCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (6)	S. Main to American	0.68	100%	\$ 3,642,000	\$ 3,642,000
	N-6	NCO-L1-T0-TWLT-P0-BOP (80)	House Anderson	Pipeline to Trinity	0.27	100%	\$ 1,470,000	\$ 1,470,000
	N-7	NCO-L1-T0-TWLT-P0-BOP (80)	S. Main	Pipeline to Trinity	0.19	100%	\$ 1,021,000	\$ 1,021,000
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Roundabout	FAA	American	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	FAA	Amon Carter	Retrofit	100%	\$ 705,000	\$ 705,000
		Roundabout	FAA	Centrepoint	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Pipeline	FM 157	Rebuild	100%	\$ 500,000	\$ 500,000
		Roundabout	Pipeline	S. Main	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Pipeline	American	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Pipeline	House Anderson	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	Sovereign	Amon Carter	Retrofit	100%	\$ 295,000	\$ 295,000
		Turn Lane Improvements	Trinity	SH 360 SBFR	Retrofit	100%	\$ 750,000	\$ 750,000
		Turn Lane Improvements	Trinity	House Anderson	Rebuild	100%	\$ 400,000	\$ 400,000
		Turn Lane Improvements	Trinity	FM 157	Retrofit	100%	\$ 230,000	\$ 230,000
		Turn Lane Improvements	Trinity	Buckingham	Retrofit	100%	\$ 655,000	\$ 655,000
		Turn Lane Improvements	Trinity	Frye	Retrofit	100%	\$ 950,000	\$ 950,000
		Turn Lane Improvements	Trinity	S. Main	Rebuild	100%	\$ 300,000	\$ 300,000
		Turn Lane Improvements	Trinity	American	Retrofit	100%	\$ 295,000	\$ 295,000
		Turn Lane Improvements	Trinity	Centrepoint	Retrofit	100%	\$ 770,000	\$ 770,000
		Turn Lane Improvements	Trinity	Amon Carter	Retrofit	100%	\$ 360,000	\$ 360,000
	Service Area Roadway Project Cost Subtotal							\$ 19,471,000
	Service Area Intersection Project Cost Subtotal							\$ 15,710,000
	2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775
	Total Cost in SERVICE AREA N							\$ 35,204,775

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- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.



**Table 4.O – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area O**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA O	O-1	NCO-L2-T0-TWLT-P0-BOP (110)	Sandy (4)	IH-30 to Ederville	0.16	100%	\$ 3,274,000	\$ 3,274,000
	O-2	NCO-L2-T0-NTMS-P0-BOP (110)	Cooks (2)	Brentwood Stair to 140' N of Bermejo	0.78	100%	\$ 6,352,000	\$ 6,352,000
	O-3	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Cooks (3)	140' N of Bermejo to Maegan	0.23	100%	\$ 851,000	\$ 851,000
	O-4	NCO-L2-T0-NTMS-P0-BOP (110)	Cooks (4)	Maegan to Dottie Lynn	0.27	100%	\$ 2,036,000	\$ 2,036,000
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Roundabout	Brentwood Stair	Sandy	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Dottie Lynn	Cooks	Rebuild	100%	\$ 500,000	\$ 500,000
		Roundabout	Ederville	Cooks	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Ederville	Eastchase	Retrofit	100%	\$ 770,000	\$ 770,000
		Roundabout	Ederville	Sandy	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	Lancaster	Sandy	Retrofit	100%	\$ 180,000	\$ 180,000
		Turn Lane Improvements	Meadowbrook	Handley	Retrofit	100%	\$ 180,000	\$ 180,000
		Turn Lane Improvements	Meadowbrook	Randol Mill	Retrofit	100%	\$ 360,000	\$ 360,000
	Service Area Roadway Project Cost Subtotal							\$ 12,513,000
	Service Area Intersection Project Cost Subtotal							\$ 8,490,000
	2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775
	<b>Total Cost in SERVICE AREA O</b>							<b>\$ 21,026,775</b>

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.PI – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area PI**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA PI	PI-1	CMU-L2-TO-UNDIV-PO-BLC (110)	White Settlement	Henderson to Main	0.54	100%	\$ 7,514,598	\$ 7,514,598
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Roundabout	White Settlement	Main	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Service Area Roadway Project Cost Subtotal							\$ 7,514,598
	Service Area Intersection Project Cost Subtotal							\$ 2,500,000
2017 Roadway Impact Fee Study Cost Per Service Area							\$ 4,000	
<b>Total Cost in SERVICE AREA PI</b>							<b>\$ 10,018,598</b>	

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- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.S – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area S**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA S	S-1	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (1)	4,220' W of Silver Creek (Existing) to Silver Creek (Existing)	0.80	100%	\$ 7,566,000	\$ 7,566,000
	S-2	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (2)	Silver Creek (Future) to 595' S of Verna	0.81	100%	\$ 5,708,000	\$ 5,708,000
	S-3	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (3)	595' S of Verna to Academy (Future)	0.16	100%	\$ 1,195,000	\$ 1,195,000
	S-4	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (4)	Academy (Future) to 1465 feet E of Academy (Future)	0.28	100%	\$ 2,071,000	\$ 2,071,000
	S-5	NCO (E)	Silver Creek (5)	1,465' E of Academy (Future) to IH-820	0.34	100%	\$ 1,329,510	\$ 1,329,510
	S-6	SYS-L3-T0-NTMS-P0-BLS (130) (W)	White Settlement (1)	600' E of Haywire Ranch to Silver Ridge	1.14	50%	\$ 8,917,000	\$ 4,458,500
	S-7	SYS-L3-T0-NTMS-P0-BLS (130) (W)	White Settlement (2)	Silver Ridge to 890' E of Silver Ridge	0.17	50%	\$ 1,318,000	\$ 659,000
	S-8	SYS-L3-T0-NTMS-P0-BLS (130) (W)	White Settlement (3)	890' E of Silver Ridge to Chapel Creek	0.75	100%	\$ 5,831,000	\$ 5,831,000
	S-9	SYS-L3-T0-NTMW-P0-BLS (130) (1/3)	White Settlement (4)	Chapel Creek to Academy	0.50	100%	\$ 925,000	\$ 925,000
	S-10	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	White Settlement (5)	Academy to Legacy	0.39	100%	\$ 714,000	\$ 714,000
	S-11	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	White Settlement (6)	Legacy to White Settlement	0.12	100%	\$ 213,000	\$ 213,000
	S-12	NCO-L2-T0-NTMS-P0-BOP (110)	Westpoint (1)	3,525' W of Basset Locke to Basset Locke	0.67	100%	\$ 4,982,000	\$ 4,982,000
	S-13	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Westpoint (2)	Basset Locke to American Flyer	0.30	100%	\$ 1,112,000	\$ 1,112,000
	S-14	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Westpoint (3)	Academy to IH-820 SBFR	0.69	100%	\$ 5,145,000	\$ 5,145,000
	S-15	NCO-L2-T0-NTMS-P0-BOP (110)	Old Weatherford (3)	3,510' W of Hickory Bend to 100' E of Hickory Bend	0.68	100%	\$ 4,842,000	\$ 4,842,000
	S-16	NCO-L2-T0-NTMS-P0-BOP (110)	Old Weatherford (4)	100' E of Hickory Bend to Chapel Creek	0.49	100%	\$ 3,448,000	\$ 3,448,000
	S-17	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Amber Ridge (1)	Chapel Creek to Wind Star	0.26	100%	\$ 973,000	\$ 973,000
	S-18	NCO-L2-T0-NTMS-P0-BOP (110)	Amber Ridge (2)	Wind Star to Academy (Future)	0.24	100%	\$ 1,775,000	\$ 1,775,000
	S-19	NCO-L1-T0-TWLT-P0-BOP (80)	Amber Ridge (3)	Academy (Future) to 920' E of Academy (Future)	0.17	100%	\$ 989,000	\$ 989,000
	S-20	CCO-L1-T0-TWLT-P0-BOP (80)	Amber Ridge (4)	920' E of Academy (Future) to Settlement Plaza (Future)	0.12	100%	\$ 712,000	\$ 712,000
	S-21	CCO-L1-T0-TWLT-P0-BOP (80)	Amber Ridge (5)	Settlement Plaza (Future) to IH 820 SBFR	0.49	100%	\$ 2,849,000	\$ 2,849,000
	S-22	NCO-L1-T0-TWLT-P0-BOP (80)	Chapin (1)	3,155' W of Whitetail Chase to 1,370' W of Whitetail Chase	0.34	100%	\$ 1,821,000	\$ 1,821,000
	S-23	NCO-L1-T0-TWLT-P0-BOP (80)	Chapin (2)	1,370' W of Whitetail Chase to 130' W of Whitetail Chase	0.23	100%	\$ 1,334,000	\$ 1,334,000
	S-24	NCO-L2-T0-NTMS-P0-BOP (110)	WR #7	3,635' N of Old Weatherford to Old Weatherford	0.69	100%	\$ 5,137,000	\$ 5,137,000
	S-25	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Ridge	135' S of Broken Arrow to 110' N of Fandor	0.51	100%	\$ 3,787,000	\$ 3,787,000
	S-26	NCO (E)	Chapel Creek	Chapin to IH-30	0.17	100%	\$ 967,698	\$ 967,698
	S-27	NCO-L2-T0-NTMS-P0-BOP (110)	Academy (1)	Silver Creek (Future) to 125' N of Sparrow Hawk	0.57	100%	\$ 4,227,000	\$ 4,227,000
	S-28	NCO-L2-T0-NTMS-P0-BOP (110)	Academy (2)	300' S of Westpoint to Amber Ridge (Future)	0.36	100%	\$ 2,714,000	\$ 2,714,000
	S-29	CCO-L2-T0-NTMS-P0-BOP (110)	Academy (3)	Amber Ridge (Future) to IH-30 WBFR	0.51	100%	\$ 3,906,000	\$ 3,906,000
	S-30	NCO-L1-T0-TWLT-P0-BOP (80)	Settlement Plaza	Westpoint to Amber Ridge (Future)	0.26	100%	\$ 1,501,000	\$ 1,501,000
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Roundabout	Amber Ridge	Academy	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Old Weatherford	Chapel Creek	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Amber Ridge	Settlement Plaza	New	100%	\$ 1,000,000	\$ 1,000,000
		Turn Lane Improvements	Chapin	Chapel Creek	Retrofit	100%	\$ 295,000	\$ 295,000
		Turn Lane Improvements	Clifford	White Settlement	Rebuild	100%	\$ 200,000	\$ 200,000
		Roundabout	Legacy	Academy	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Silver Creek	Academy	New	100%	\$ 1,000,000	\$ 1,000,000
		Turn Lane Improvements	Westpoint	Academy	Rebuild	100%	\$ 800,000	\$ 800,000
		Roundabout	Westpoint	American Flyer	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Westpoint	Chapel Creek	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	Westpoint	Settlement Plaza	Rebuild	100%	\$ 300,000	\$ 300,000
		Turn Lane Improvements	White Settlement	Academy	Rebuild	100%	\$ 400,000	\$ 400,000
		Turn Lane Improvements	White Settlement	Chapel Creek	Rebuild	100%	\$ 600,000	\$ 600,000
		Turn Lane Improvements	White Settlement	Legacy	Rebuild	100%	\$ 200,000	\$ 200,000
		Turn Lane Improvements	White Settlement	Silver Ridge	Rebuild	50%	\$ 300,000	\$ 150,000
Service Area Roadway Project Cost Subtotal							\$ 82,891,708	
Service Area Intersection Project Cost Subtotal							\$ 11,945,000	
2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775	
<b>Total Cost in SERVICE AREA S</b>							<b>\$ 94,860,483</b>	

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**Table 4.T – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area T**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA T	T-1	NCO-L1-T0-TWLT-P0-BOP (80)	Chapin (3)	Camp Bowie to Longvue	0.61	100%	\$ 3,439,000	\$ 3,439,000
	T-2	NCO-L2-T0-NTMS-P0-BOP (110)	Chapin (4)	Longvue to 965' W of Alameda	0.51	100%	\$ 3,575,000	\$ 3,575,000
	T-3	NCO-L2-T0-NTMS-P0-BOP (110)	Chapin (5)	965' W of Alameda to Alameda	0.18	100%	\$ 1,364,000	\$ 1,364,000
	T-4	CCO-L2-T0-TWLT-P0-BOP (110)	Chapin (6)	Alameda to IH-820	0.25	100%	\$ 1,975,000	\$ 1,975,000
	T-5	CCO-L1-T0-TWLT-P0-BOP (80)	Alameda (1)	Camp Bowie West to 545' S of Camp Bowie West	0.10	100%	\$ 606,000	\$ 606,000
	T-6	CCO-L1-T0-TWLT-P0-BOP (80)	Alameda (2)	545' S of Camp Bowie West to Chapin	0.34	100%	\$ 1,882,000	\$ 1,882,000
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Turn Lane Improvements	Calmont	Cherry	Retrofit	50%	\$ 720,000	\$ 360,000
		Roundabout	Calmont	Shenandoah Rd	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Roundabout	Calmont	Laredo Dr	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Camp Bowie West	Alameda	Rebuild	100%	\$ 500,000	\$ 500,000
		Turn Lane Improvements	Camp Bowie West	Chapel Creek	Rebuild	100%	\$ 900,000	\$ 900,000
		Turn Lane Improvements	Camp Bowie West	Cherry	Retrofit	75%	\$ 360,000	\$ 270,000
		Turn Lane Improvements	Camp Bowie West	Las Vegas	Retrofit	100%	\$ 475,000	\$ 475,000
		Turn Lane Improvements	Camp Bowie West	Longvue	Retrofit	100%	\$ 1,180,000	\$ 1,180,000
		Turn Lane Improvements	Chapin	Alameda	Rebuild	100%	\$ 400,000	\$ 400,000
		Turn Lane Improvements	Chapin	Longvue	Rebuild	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Normandale	Alameda	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Service Area Roadway Project Cost Subtotal							<b>\$ 12,841,000</b>
	Service Area Intersection Project Cost Subtotal							<b>\$ 12,585,000</b>
	2017 Roadway Impact Fee Study Cost Per Service Area							<b>\$ 23,775</b>
	<b>Total Cost in SERVICE AREA T</b>							<b>\$ 25,449,775</b>

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**Table 4.U – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area U**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA U	U-1	NCO-L2-T0-TWLT-P0-BOP (110)	Old Weatherford (1)	3,500' W of Walsh Ranch to Walsh Ranch	0.66	100%	\$ 5,021,000	\$ 5,021,000
	U-2	NCO-L2-T0-NTMS-P0-BOP (110)	Old Weatherford (2)	Walsh Ranch to 1,355' E of Walsh Ranch	0.26	100%	\$ 1,818,000	\$ 1,818,000
	U-3	CCO-L2-T0-NTMS-P0-BOP (110)	Quail Meadow (1)	FM 3325 to WR #5	1.01	100%	\$ 7,731,000	\$ 7,731,000
	U-4	CCO-L2-T0-NTMS-P0-BLC (110)	Quail Meadow (2)	WR #5 to 240' W of Walsh Ranch	1.62	100%	\$ 12,930,000	\$ 12,930,000
	U-5	CCO-L2-T0-NTMS-P0-BLC (110)	Quail Meadow (3)	610' E of Walsh Ranch to WR #7	0.99	100%	\$ 7,927,000	\$ 7,927,000
	U-6	CCO-L2-T0-NTMS-P0-BLC (110)	Quail Meadow (4)	WR #7 to IH-30	0.36	100%	\$ 2,888,000	\$ 2,888,000
	U-7	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (1)	1,880' W of WR #5 to WR #5	0.36	100%	\$ 2,909,000	\$ 2,909,000
	U-8	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (2)	WR #5 to WR #6	0.51	100%	\$ 4,163,000	\$ 4,163,000
	U-9	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (3)	WR #6 to Walsh Ranch	1.41	100%	\$ 11,535,000	\$ 11,535,000
	U-10	CCO-L2-T0-NTMS-P0-BOP (110)	WR #1 (4)	Walsh Ranch to WR #7	1.67	100%	\$ 12,759,000	\$ 12,759,000
	U-11	CCO-L2-T0-NTMS-P0-BOP (110)	WR #1 (5)	WR #7 to 2745' E of WR #7	0.52	100%	\$ 3,979,000	\$ 3,979,000
	U-12	NCO-L2-T0-NTMS-P0-BOP (110)	WR #2 (1)	3,645' W of Walsh Ranch to Walsh Ranch	0.69	100%	\$ 5,152,000	\$ 5,152,000
	U-13	NCO-L2-T0-TWLT-P0-BOP (110)	WR #2 (2)	Walsh Ranch to WR #1	0.57	100%	\$ 4,572,000	\$ 4,572,000
	U-14	NCO-L2-T0-TWLT-P0-BOP (110)	WR #3 (1)	2,685' W of Walsh Ranch to Walsh Ranch	0.51	100%	\$ 4,059,000	\$ 4,059,000
	U-15	NCO-L2-T0-TWLT-P0-BOP (110)	WR #3 (2)	Walsh Ranch to WR #7	1.39	100%	\$ 11,116,000	\$ 11,116,000
	U-16	NCO-L2-T0-TWLT-P0-BOP (110)	WR #3 (3)	WR #7 to 3,590' E of WR #7	0.68	100%	\$ 5,426,000	\$ 5,426,000
	U-17	NCO-L2-T0-TWLT-P0-BOP (110)	Aledo Rd	WR #3 to 515' E of WR #3	0.10	100%	\$ 740,000	\$ 740,000
	U-18	NCO-L1-T0-TWLT-P0-BOP (80)	WR #4	1,295' W of Walsh Ranch to Walsh Ranch	0.25	100%	\$ 1,392,000	\$ 1,392,000
	U-19	CCO-L2-T0-NTMS-P0-BOP (110)	WR #5 (1)	Old Weatherford to 1,960' S of Old Weatherford	0.37	100%	\$ 2,841,000	\$ 2,841,000
	U-20	CCO-L2-T0-NTMS-P0-BOP (110)	WR #5 (2)	1,960' S of Old Weatherford to Quail Meadow	0.64	100%	\$ 4,891,000	\$ 4,891,000
	U-21	CCO-L2-T0-TWLT-P0-BOP (110)	WR #5 (3)	Quail Meadow to IH-20	0.25	100%	\$ 2,027,000	\$ 2,027,000
	U-22	CCO-L2-T0-TWLT-P0-BOP (110)	WR #5 (4)	IH-20 to WR #1	0.61	100%	\$ 4,966,000	\$ 4,966,000
	U-23	CCO-L1-T0-TWLT-P0-BOP (80)	WR #6	IH-20 to WR #1	0.30	100%	\$ 1,756,000	\$ 1,756,000
	U-24	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (1)	Old Weatherford to Marys Ridge	0.13	100%	\$ 1,032,000	\$ 1,032,000
	U-25	NCO-L3-T0-NTMS-P0-BOP (130) (W) (1/2)	Walsh Ranch (2)	Marys Ridge to Walsh	0.45	100%	\$ 1,774,000	\$ 1,774,000
	U-26	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Walsh Ranch (3)	Walsh to Walsh Creek	0.36	100%	\$ 968,000	\$ 968,000
	U-27	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Walsh Ranch (4)	Walsh Creek to Quail Meadow	0.50	100%	\$ 916,000	\$ 916,000
	U-28	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (5)	IH-30 EBFR to IH-20	0.69	100%	\$ 5,604,000	\$ 5,604,000
	U-29	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (6)	IH-20 to WR #1	0.37	100%	\$ 3,025,000	\$ 3,025,000
	U-30	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (7)	WR #1 to WR #2	0.54	100%	\$ 4,240,000	\$ 4,240,000
	U-31	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (8)	WR #2 to WR #3	0.70	100%	\$ 5,526,000	\$ 5,526,000
	U-32	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (9)	WR #3 to WR #4	0.64	100%	\$ 5,055,000	\$ 5,055,000
	U-33	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (10)	WR #4 to 760' S of WR #4	0.14	100%	\$ 1,137,000	\$ 1,137,000
	U-34	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (1)	4,830' N of Quail Meadow to Quail Meadow	0.92	100%	\$ 7,301,000	\$ 7,301,000
	U-35	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (2)	Quail Meadow to IH-30 EBFR	0.22	100%	\$ 1,669,000	\$ 1,669,000
	U-36	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (3)	4,680' N of IH-20 to IH-20	0.89	100%	\$ 7,073,000	\$ 7,073,000
	U-37	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (4)	IH-20 to WR #1	0.31	100%	\$ 2,435,000	\$ 2,435,000
	U-38	NCO-L2-T0-NTMS-P0-BOP (110)	WR #7 (5)	WR #1 to WR #3	0.41	100%	\$ 3,054,000	\$ 3,054,000
	U-39	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (6)	WR #3 to Aledo Road	0.34	100%	\$ 2,743,000	\$ 2,743,000
Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area	
	Turn Lane Improvements	Old Weatherford	Walsh Ranch	Rebuild	100%	\$ 600,000	\$ 600,000	
	Roundabout	Quail Meadow	WR #5	New	100%	\$ 1,000,000	\$ 1,000,000	
	Roundabout	Quail Meadow	WR #7	New	100%	\$ 1,000,000	\$ 1,000,000	
	Roundabout	WR #1	WR #5	New	100%	\$ 1,000,000	\$ 1,000,000	
	Roundabout	WR #1	WR #6	New	100%	\$ 1,000,000	\$ 1,000,000	
	Turn Lane Improvements	WR #1	Walsh Ranch	New	100%	\$ 935,000	\$ 935,000	
	Turn Lane Improvements	WR #2	Walsh Ranch	New	100%	\$ 935,000	\$ 935,000	
	Roundabout	WR #1	WR #2	New	100%	\$ 1,000,000	\$ 1,000,000	
	Roundabout	WR #1	WR #7	New	100%	\$ 1,000,000	\$ 1,000,000	
	Turn Lane Improvements	WR #3	Walsh Ranch	New	100%	\$ 850,000	\$ 850,000	
	Roundabout	WR #3	WR #7	New	100%	\$ 1,000,000	\$ 1,000,000	
	Turn Lane Improvements	WR #4	Walsh Ranch	New	100%	\$ 255,000	\$ 255,000	
Service Area Roadway Project Cost Subtotal							\$176,150,000	
Service Area Intersection Project Cost Subtotal							\$ 10,575,000	
2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775	
Total Cost in SERVICE AREA U							\$186,748,775	

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**Table 4.V – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area V**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA V	V-1	NCO-L2-T0-NTMS-P0-BOP (110)	Dean Ranch (1)	140' E of Markum Ranch to 2,460' E of Markum Ranch	0.44	100%	\$ 3,280,000	\$ 3,280,000
	V-2	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Dean Ranch (2)	2,445' W of FM 2871 to FM 2871	0.46	100%	\$ 1,712,000	\$ 1,712,000
	V-3	NCO-L2-T0-NTMS-P0-BOP (110)	Bear Creek (1)	Walsh Ranch Major #2 to Markum Ranch	0.66	100%	\$ 4,904,000	\$ 4,904,000
	V-4	NCO-L2-T0-NTMS-P0-BOP (110)	Bear Creek (2)	Markum Ranch to US 377	0.42	100%	\$ 3,110,000	\$ 3,110,000
	V-5	NCO-L2-T0-TWLT-P0-BOP (110)	Markum Ranch (1)	705' S of Dean Ranch to 4,090' S of Dean Ranch	0.64	50%	\$ 5,117,000	\$ 2,558,500
	V-6	NCO-L2-T0-TWLT-P0-BOP (110)	Markum Ranch (2)	4,090' S of Dean Ranch to Bear Creek	1.05	100%	\$ 8,388,000	\$ 8,388,000
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Turn Lane Improvements	Dean Ranch	FM 2871	Rebuild	100%	\$ 400,000	\$ 400,000
		Roundabout	Bear Creek	Markum Ranch	New	100%	\$ 1,000,000	\$ 1,000,000
	Service Area Roadway Project Cost Subtotal							\$ 23,952,500
	Service Area Intersection Project Cost Subtotal							\$ 1,400,000
	2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775
	<b>Total Cost in SERVICE AREA V</b>							<b>\$ 25,376,275</b>

- a. These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- b. These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.



**Table 4.W – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area W**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA W	W-1	NCO-L1-T0-TWLT-P0-BOP (80)	Lakeside/Altamesa	145' W of Pecan Valley to Bryant Irvin	1.38	100%	\$ 7,457,000	\$ 7,457,000
	W-2, Y-1	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (1)	Bryant Irvin to Harris	0.52	50%	\$ 7,673,507	\$ 3,836,753
	W-3, Y-2	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (2)	Harris to Chisholm Trail SBFR	0.16	50%	\$ 2,285,725	\$ 1,142,863
	W-4, Y-3	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (3)	Chisholm Trail SBFR to Granbury	0.43	50%	\$ 6,367,378	\$ 3,183,689
	W-5, Y-23	NCO-L2-T0-NTMS-P0-BOP (110)	Bryant Irvin (1)	Altamesa to 2,280' S of Altamesa	0.43	50%	\$ 3,223,000	\$ 1,611,500
	W-6	NCO (E) (4U)	Harris	Dutch Branch to Altamesa	0.49	100%	\$ 1,256,097	\$ 1,256,097
	Intersection Improvements	Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Turn Lane Improvements	Altamesa	Bryant Irvin	Rebuild	75%	\$ 300,000	\$ 225,000
		Turn Lane Improvements	Altamesa	Granbury	Retrofit	50%	\$ 525,000	\$ 262,500
		Turn Lane Improvements	Altamesa	Hulen	Retrofit	50%	\$ 230,000	\$ 115,000
		Turn Lane Improvements	Altamesa	McCart	Retrofit	50%	\$ 295,000	\$ 147,500
		Roundabout	Arborlawn	International	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Arborlawn	Hulen	Retrofit	100%	\$ 230,000	\$ 230,000
		Roundabout	Bellaire	Arborlawn	Retrofit	75%	\$ 2,500,000	\$ 1,875,000
		Turn Lane Improvements	Bellaire	Hulen	Retrofit	50%	\$ 525,000	\$ 262,500
		Roundabout	Dutch Branch	Harris	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Dutch Branch	Bryant Irvin	Retrofit	100%	\$ 180,000	\$ 180,000
		Turn Lane Improvements	Hulen	Granbury	Retrofit	100%	\$ 180,000	\$ 180,000
		Turn Lane Improvements	Oakmont	Hulen	Retrofit	100%	\$ 295,000	\$ 295,000
		Turn Lane Improvements	Oakmont	Oakmont Trail	Retrofit	100%	\$ 230,000	\$ 230,000
		Turn Lane Improvements	Oakmont	Harris	Retrofit	100%	\$ 295,000	\$ 295,000
		Turn Lane Improvements	Oakmont	Bryant Irvin	Retrofit	100%	\$ 525,000	\$ 525,000
		Turn Lane Improvements	Overton	Hulen	Retrofit	100%	\$ 360,000	\$ 360,000
		Turn Lane Improvements	Overton Ridge	Bryant Irvin	Retrofit	100%	\$ 295,000	\$ 295,000
	Service Area Roadway Project Cost Subtotal							\$ 18,487,902
	Service Area Intersection Project Cost Subtotal							\$ 10,477,500
	2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775
	Total Cost in SERVICE AREA W							\$ 28,989,177

- These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.X – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area X**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA X	X-1	CCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (3)	Oak Grove to Wichita	1.31	100%	\$ 8,394,000	\$ 8,394,000
	X-2	NCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (4)	Lana to 600' E of Lana	0.11	100%	\$ 645,000	\$ 645,000
	X-3	NCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (5)	600' E of Lana to 650' W of Forest Hill	0.34	50%	\$ 1,940,000	\$ 970,000
	X-4	NCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (6)	650' W of Forest Hill to Forest Hill	0.12	100%	\$ 699,000	\$ 699,000
	X-5	CCO-L1-T0-TWLT-P0-BOP (80)	Joel East	Oak Grove to Wichita	1.10	100%	\$ 6,120,000	\$ 6,120,000
	X-6	NCO-L1-T0-TWLT-P0-BOP (80)	Everman Kennedale (1)	Anglin to 190' E of Anglin	0.04	100%	\$ 763,000	\$ 763,000
	X-7	NCO-L1-T0-TWLT-P0-BOP (80)	Everman Kennedale (2)	2,670' E of Anglin to 3,645' E of Anglin	0.18	100%	\$ 1,952,000	\$ 1,952,000
	X-8	NCO-L1-T0-TWLT-P0-BOP (80)	Everman Kennedale (3)	3,645' E of Anglin to 5,350' W of Anglin	0.32	100%	\$ 1,740,000	\$ 1,740,000
	X-9	NCO-L1-T0-TWLT-P0-BOP (80)	Enon	2,635' W of Anglin to Anglin	0.50	100%	\$ 2,689,000	\$ 2,689,000
	X-10, Z-1	NCO-L2-T0-NTMS-P0-BOP (110)	Everman (1)	Butterwick to Cameron Hill	0.56	50%	\$ 5,459,000	\$ 2,729,500
	X-11, Z-2	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Everman (2)	Cameron Hill to 110' E of Sheridan	0.25	50%	\$ 934,000	\$ 467,000
	X-12	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Hemphill (1)	Sunderland to Sycamore School	0.79	100%	\$ 2,904,000	\$ 2,904,000
	X-13	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Hemphill (2)	360' S of Sycamore School to 815' N of Everman	0.41	100%	\$ 1,530,000	\$ 1,530,000
	X-14	NCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (3)	815' N of Everman to Everman	0.15	100%	\$ 1,153,000	\$ 1,153,000
	X-15	NCO-L2-T0-NTMS-P0-BOP (110)	Oak Grove (1)	Englad to Campus	0.35	100%	\$ 2,456,000	\$ 2,456,000
	X-16	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Oak Grove (2)	470' S of Alta Mesa to Railroad	0.10	100%	\$ 714,000	\$ 714,000
	X-17	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Oak Grove (3)	Railroad to Joel East	0.34	100%	\$ 1,613,000	\$ 1,613,000
	X-18	CCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (4)	Joel East to Everman	1.25	100%	\$ 9,937,000	\$ 9,937,000
	X-19	CCO-L2-T0-NTMS-P0-BOP (110)	Wichita (1)	345' N of Altamesa to Joel East	0.20	100%	\$ 1,431,000	\$ 1,431,000
	X-20	CCO-L2-T0-NTMS-P0-BOP (110)	Wichita (2)	Joel East to 960' S of Joel East	0.18	100%	\$ 1,320,000	\$ 1,320,000
	X-21	NCO-L2-T0-NTMS-P0-BOP (110)	Forest Hill	Lon Stephenson to 905' S of Hanna Ranch	0.72	100%	\$ 5,084,000	\$ 5,084,000
	X-22	NCO-L1-T0-TWLT-P0-BOP (80)	Anglin	Lon Stephenson to Enon	1.00	100%	\$ 5,825,000	\$ 5,825,000
	X-23	NCO-L1-T0-TWLT-P0-BOP (80)	Dick Price	1,935' N of Shadey Ln to 310' S of Shadey Ln	0.43	100%	\$ 2,291,000	\$ 2,291,000
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Turn Lane Improvements	Altamesa	Campus	Rebuild	100%	\$ 400,000	\$ 400,000
		Turn Lane Improvements	Altamesa	Hemphill	Retrofit	100%	\$ 640,000	\$ 640,000
		Turn Lane Improvements	Altamesa	Crowley	Retrofit	50%	\$ 885,000	\$ 442,500
		Roundabout	Altamesa	Wichita	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Altamesa	Forest Hill	Rebuild	75%	\$ 1,500,000	\$ 1,125,000
		Roundabout	Everman	Hemphill	New	50%	\$ 1,000,000	\$ 500,000
		Turn Lane Improvements	Everman	Will Rogers	Retrofit	50%	\$ 295,000	\$ 147,500
		Turn Lane Improvements	Everman	Oak Grove	Rebuild	50%	\$ 800,000	\$ 400,000
		Turn Lane Improvements	Everman	Crowley	Retrofit	25%	\$ 345,000	\$ 86,250
		Roundabout	Everman Kennedale	Anglin	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	Felix	Hemphill	Retrofit	100%	\$ 360,000	\$ 360,000
		Turn Lane Improvements	Joe B Rushing	Campus	Retrofit	100%	\$ 885,000	\$ 885,000
		Roundabout	Joel East	Oak Grove	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Joel East	Wichita	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Lon Stephenson	Anglin	Rebuild	75%	\$ 1,500,000	\$ 1,125,000
		Turn Lane Improvements	Oak Grove	Campus	Rebuild	100%	\$ 200,000	\$ 200,000
		Turn Lane Improvements	Seminary	James	Retrofit	25%	\$ 360,000	\$ 90,000
		Turn Lane Improvements	Seminary	Campus	Retrofit	50%	\$ 1,180,000	\$ 590,000
		Turn Lane Improvements	Sycamore School	Hemphill	Rebuild	100%	\$ 600,000	\$ 600,000
Service Area Roadway Project Cost Subtotal							\$ 63,426,500	
Service Area Intersection Project Cost Subtotal							\$ 13,591,250	
2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775	
<b>Total Cost in SERVICE AREA X</b>							<b>\$ 77,041,525</b>	

- These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.Y – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area Y**

Service Area	Proj. #	Impact Fee Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SAY	W-2, Y-1	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (1)	Bryant Irvin to Harris	0.52	50%	\$ 7,673,507	\$ 3,836,753
	W-3, Y-2	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (2)	Harris to Chisholm Trail	0.16	50%	\$ 2,285,725	\$ 1,142,863
	W-4, Y-3	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (3)	Chisholm Trail to Granbury	0.43	50%	\$ 6,367,378	\$ 3,183,689
	Y-4	CMU-L2-T0-TWLT-P0-BLC (110)	Columbus Trail (1)	Bryant Irvin (Future) to Old Granbury	0.22	100%	\$ 1,881,000	\$ 1,881,000
	Y-5	CMU-L2-T0-TWLT-P0-BLC (110)	Columbus Trail (2)	Old Granbury to Brewer (Future)	0.16	100%	\$ 1,963,000	\$ 1,963,000
	Y-6	CCO-L2-T0-NTMS-P0-BOP (110)	Sycamore School (1)	Brewer (Future) to Chisholm Trail	0.14	100%	\$ 1,004,000	\$ 1,004,000
	Y-7	CCO (E)	Sycamore School (2)	Summer Creek to Creek Meadows	0.13	100%	\$ 182,692	\$ 182,692
	Y-8	SYS-L2-T0-NTMS-P0-BOP (110) (1/2)	Risinger (1)	760' E of McCart to Poynter	0.28	100%	\$ 1,025,000	\$ 1,025,000
	Y-9	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (2)	Poynter to 275' E of Carolina	0.39	100%	\$ 2,984,000	\$ 2,984,000
	Y-10	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (3)	275' E of Carolina to FM 731	0.45	100%	\$ 3,949,000	\$ 3,949,000
	Y-11	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	McPherson (1)	Risinger to 795' E of Risinger	0.15	100%	\$ 570,000	\$ 570,000
	Y-12	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	McPherson (2)	795' E of Risinger to Chisholm Trail SBFR	0.89	100%	\$ 3,386,000	\$ 3,386,000
	Y-13	NCO-L2-T0-TWLT-P0-BLS (110)	McPherson (3)	Summer Creek to Willow Branch	0.42	100%	\$ 1,357,532	\$ 1,357,532
	Y-14	NCO-L2-T0-TWLT-P0-BLS (110)	McPherson (4)	Cleburne to 3970' E of Cleburne	0.75	100%	\$ 5,722,000	\$ 5,722,000
	Y-15	CCO-L2-T0-TWLT-P0-BOP (110)	Stewart Feltz (1)	Brewer to Chisholm Trail	0.35	100%	\$ 2,816,000	\$ 2,816,000
	Y-16	CCO-L2-T0-TWLT-P0-BOP (110)	Stewart Feltz (2)	Chisholm Trail to Cleburne Crowley	0.23	100%	\$ 1,850,000	\$ 1,850,000
	Y-17	CCO-L2-T0-TWLT-P0-BOP (110)	Summer Creek (1)	2,515' S of Stewart Feltz (Future) to 3,055' S of Stewart Feltz (Future)	0.10	100%	\$ 794,000	\$ 794,000
	Y-18	CCO-L2-T0-TWLT-P0-BOP (110)	Summer Creek (2)	Stewart Feltz (Future) to 2,515' S of Stewart Feltz	0.48	100%	\$ 3,892,000	\$ 3,892,000
	Y-19	CCO-L2-T0-TWLT-P0-BOP (110)	Cleburne Crowley (1)	Stewart Feltz (Future) to Cleburne Crowley (Existing)	0.77	100%	\$ 6,267,000	\$ 6,267,000
	Y-20	NCO-L2-T0-TWLT-P0-BOP (110)	Cleburne Crowley (2)	Cleburne Crowley (Existing) to 480' W of Cleburne	0.22	100%	\$ 1,658,000	\$ 1,658,000
	Y-21	NCO-L2-T0-TWLT-P0-BOP (110)	Cleburne Crowley (3)	480' W of Cleburne to Cleburne	0.09	100%	\$ 690,000	\$ 690,000
	Y-22	NCO-L1-T0-TWLT-P0-BOP (80)	Cleburne Crowley (4)	Cleburne to 945' E of Cleburne	0.18	100%	\$ 965,000	\$ 965,000
	W-5, Y-23	NCO-L2-T0-NTMS-P0-BOP (110)	Bryant Irvin (1)	Altamesa to 2,280' S of Altamesa	0.43	50%	\$ 3,223,000	\$ 1,611,500
	Y-24	CMU-L2-T0-TWLT-P0-BLC (110)	Bryant Irvin (2)	2,280' S of Altamesa to Columbus (Future)	0.82	100%	\$ 7,028,000	\$ 7,028,000
	Y-25	NCO-L2-T0-TWLT-P0-BOP (110)	Bryant Irvin (3)	Columbus Trail (Future) to McPherson	1.83	100%	\$ 14,593,000	\$ 14,593,000
	Y-26	CMU-L2-T0-TWLT-P0-BLC (110)	Brewer (1)	Columbus Trail to 2,740' S of Columbus Trail	0.52	100%	\$ 4,423,000	\$ 4,423,000
	Y-27	CCO-L2-T0-NTMS-P0-BOP (110)	Brewer (2)	Risinger to Rockrose	0.47	100%	\$ 3,624,000	\$ 3,624,000
	Y-28	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Brewer (3)	Rockrose to McPherson	0.16	100%	\$ 859,000	\$ 859,000
	Y-29	NCO-L2-T0-NTMS-P0-BOP (110)	Brewer (4)	McPherson to Stewart Feltz (Future)	2.00	100%	\$ 14,952,000	\$ 14,952,000
	Y-30	NCO-L1-T0-TWLT-P0-BOP (80)	Brewer (5)	Stewart Feltz (Future) to 4,935' S of Stewart Feltz	0.93	100%	\$ 5,306,000	\$ 5,306,000
	Y-31	NCO (E)	Granbury	445' S of Altamesa to 275' S of Mesa Springs	0.23	100%	\$ 1,807,652	\$ 1,807,652
	Y-32	NCO (E)	Granbury/Summer Creek	Summer Meadows to Sycamore School	0.33	100%	\$ 465,526	\$ 465,526
	Y-33	NCO (E)	Summer Creek (3)	Sycamore School to Columbus	0.20	100%	\$ 290,954	\$ 290,954
	Y-34	NCO (E)	Summer Creek (4)	145' N of Summer Park to Risinger	0.42	100%	\$ 1,357,532	\$ 1,357,532
	Y-35	NCO (E)	Summer Creek (5)	Risinger to McPherson	0.66	100%	\$ 2,133,265	\$ 2,133,265
	Y-36	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)	Summer Creek (6)	McPherson to Sunflower Ridge	0.45	100%	\$ 1,759,000	\$ 1,759,000
	Y-37	NCO-L2-T0-NTMS-P0-BLS (110)	Summer Creek (7)	Sunflower Ridge to 710' N of Cleburne Crowley	0.81	100%	\$ 6,197,000	\$ 6,197,000
	Y-38	NCO-L2-T0-NTMS-P0-BLS (110)	Cleburne (1)	Cleburne Crowley to 3,185' S of Cleburne Crowley	0.60	100%	\$ 4,358,000	\$ 4,358,000
	Y-39	NCO-L2-T0-NTMS-P0-BLS (110)	Cleburne (2)	3,185' S of Cleburne Crowley to Longhorn Trail	0.33	100%	\$ 2,516,000	\$ 2,516,000
	Y-40	NCO-L1-T0-TWLT-P0-BOP (80) (1/2)	Hulen	Winnipeg to 335' N of Rancho Verde	0.28	100%	\$ 1,083,941	\$ 1,083,941
	Y-41	NCO-L1-T0-TWLT-P0-BOP (80)	Cleburne (3)	335' N of Rancho Verde to 330' S of Rancho Verde	0.13	100%	\$ 486,988	\$ 486,988
	Y-42	NCO-L1-T0-TWLT-P0-BOP (80)	Cleburne (4)	330' S of Rancho Verde to 2,295' S of Rancho Verde	0.37	100%	\$ 2,005,000	\$ 2,005,000
	Y-43	SYS-L2-T0-NTMS-P0-BLS (110) (1/2)	McCart (1)	590' S of Risinger to 120' S of Cayman	0.31	100%	\$ 1,127,000	\$ 1,127,000
	Y-44	SYS-L2-T0-NTMS-P0-BLS (110)	McCart (2)	120' S of Cayman to McPherson (Future)	0.57	100%	\$ 4,485,000	\$ 4,485,000
	Y-45	NCO-L2-T0-NTMS-P0-BLS (110)	McCart (3)	McPherson (Future) to 140' N of Twinleaf	0.60	100%	\$ 4,554,000	\$ 4,554,000
	Y-46	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)	McCart (4)	Mountain Meadow to 1,600' S of Mountain Meadow	0.30	100%	\$ 1,141,000	\$ 1,141,000
	Y-47	NCO-L2-T0-TWLT-P0-BOP (110)	Industrial	McCart to 1,005' E of McCart	0.19	100%	\$ 1,520,000	\$ 1,520,000
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Turn Lane Improvements	Altamesa	FM 731	Retrofit	50%	\$ 885,000	\$ 442,500
		Turn Lane Improvements	Altamesa	Bryant Irvin	Rebuild	25%	\$ 300,000	\$ 75,000
		Turn Lane Improvements	Altamesa	Granbury	Retrofit	50%	\$ 525,000	\$ 262,500
		Turn Lane Improvements	Altamesa	Hulen	Retrofit	50%	\$ 230,000	\$ 115,000
		Turn Lane Improvements	Altamesa	McCart	Retrofit	50%	\$ 295,000	\$ 147,500
		Roundabout	Columbus Trail	Bryant Irvin	New	100%	\$ 1,000,000	\$ 1,000,000
		Turn Lane Improvements	Columbus Trail	Brewer	Rebuild	100%	\$ 400,000	\$ 400,000
		Turn Lane Improvements	Sycamore School	FM 731	Retrofit	50%	\$ 345,000	\$ 172,500
		Roundabout	McCart	Industrial	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	McPherson	Hulen	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Roundabout	McPherson	McCart	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Risinger	Summer Creek	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
		Turn Lane Improvements	Risinger	Hulen	Retrofit	100%	\$ 590,000	\$ 590,000
		Turn Lane Improvements	Risinger	McCart	Retrofit	100%	\$ 460,000	\$ 460,000
		Turn Lane Improvements	Risinger	FM 731	Rebuild	50%	\$ 1,000,000	\$ 500,000
		Roundabout	Stewart Feltz	Brewer	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Stewart Feltz	Summer Creek	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	Cleburne Crowley	Cleburne	Rebuild	50%	\$ 1,500,000	\$ 750,000
		Turn Lane Improvements	Sycamore School	Summer Creek	Retrofit	100%	\$ 460,000	\$ 460,000
		Turn Lane Improvements	Sycamore School	Hulen	Retrofit	100%	\$ 1,000,000	\$ 1,000,000
Service Area Roadway Project Cost Subtotal								\$140,803,887
Service Area Intersection Project Cost Subtotal								\$ 15,875,000
2017 Roadway Impact Fee Study Cost Per Service Area								\$ 23,775
<b>Total Cost in SERVICE AREA Y</b>								<b>\$156,702,662</b>

- These planning level cost projections have been developed for Impact Fee calculations only and should not be used for any future Transportation Improvement Projects within the City of Fort Worth.
- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

**Table 4.Z – 10-Year Transportation Impact Fee TIP  
with Conceptual Level Cost Projections – Service Area Z**

Service Area	Proj. #	IF Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
SA Z	X-10, Z-1	NCO-L2-T0-NTMS-P0-BOP (110)	Everman (1)	Butterwick to Cameron Hill	0.56	50%	\$ 5,459,000	\$ 2,729,500
	X-11, Z-2	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Everman (2)	Cameron Hill to 110' E of Sheridan	0.25	50%	\$ 934,000	\$ 467,000
	Z-3	NCO-L2-T0-NTMS-P0-BOP (110)	Shelby	Race to Rendon	1.00	50%	\$ 7,055,000	\$ 3,527,500
	Z-4	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (4)	FM 731 to Hemphill	0.76	100%	\$ 5,897,000	\$ 5,897,000
	Z-5	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (5)	Hemphill to IH-35 W	0.88	100%	\$ 7,042,000	\$ 7,042,000
	Z-6	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (6)	IH-35 W to 1370' W of IH-35 W	0.26	100%	\$ 1,889,000	\$ 1,889,000
	Z-7	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (7)	1,370' W of IH-35 W to Oak Grove	0.79	100%	\$ 6,019,000	\$ 6,019,000
	Z-8	SYS-L2-T0-NTMS-P0-BOP (110)	Oak Grove Shelby (1)	Oak Grove to 1,400' E of Michael	0.57	100%	\$ 4,182,000	\$ 4,182,000
	Z-9	SYS-L2-T0-NTMS-P0-BOP (110)	Oak Grove Shelby (2)	1,400' E of Michael to Race	0.43	100%	\$ 3,156,000	\$ 3,156,000
	Z-10	NCO-L1-T0-TWLT-P0-BOP (80)	Oak Grove Shelby (3)	Race to Rendon	1.00	50%	\$ 5,654,000	\$ 2,827,000
	Z-11	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (5)	FM 731 to 1,210' W of Deer	1.30	100%	\$ 10,434,000	\$ 10,434,000
	Z-12	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (6)	Biskay Bay to IH-35 W SBFR	0.09	100%	\$ 458,135	\$ 458,135
	Z-13	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (7)	IH-35 W SBFR to IH-35 W NBFR	0.13	100%	\$ 4,061,322	\$ 4,061,322
	Z-14	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (8)	IH-35 W NBFR to Oak Grove	0.67	100%	\$ 4,975,000	\$ 4,975,000
	Z-15	NCO-L2-T0-TWLT-P0-BOP (110)	McPherson (9)	Oak Grove to Forest Hill Everman	1.44	100%	\$ 10,938,000	\$ 10,938,000
	Z-16	NCO (E)	McAlister (1)	1,430' W of IH-35 W SBFR to IH-35 W SBFR	0.27	100%	\$ 1,538,879	\$ 1,538,879
	Z-17	NCO-L1-T0-TWLT-P0-BOP (80)	McAlister (2)	IH-35 W NBFR to Stone	0.24	100%	\$ 1,372,000	\$ 1,372,000
	Z-18	NCO-L2-T0-TWLT-P0-BOP (110)	Alsbery	IH-35 W NBFR to Stone	0.22	100%	\$ 912,218	\$ 912,218
	Z-19	CCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (4)	Everman to Risinger	0.86	100%	\$ 7,975,000	\$ 7,975,000
	Z-20	NCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (5)	3,870' N of McPherson to McPherson	0.73	100%	\$ 5,469,000	\$ 5,469,000
	Z-21	NCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (6)	McPherson to 655' N of Brasenose	0.91	100%	\$ 8,697,000	\$ 8,697,000
	Z-22	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Hemphill (7)	655' N of Brasenose to Nuffield	0.12	100%	\$ 459,000	\$ 459,000
	Z-23	NCO-L2-T0-TWLT-P0-BOP (110) (1/2)	Hemphill (8)	240' S of FM 1187 to 130' S of Windy Knoll	0.40	100%	\$ 1,758,000	\$ 1,758,000
	Z-24	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Oak Grove (5)	Forum to 605' S of Forum	0.11	100%	\$ 435,000	\$ 435,000
	Z-25	CCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (6)	605' S of Forum to Risinger	0.25	100%	\$ 1,947,000	\$ 1,947,000
	Z-26	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (7)	Risinger to 1,020' S of Risinger	0.19	100%	\$ 1,554,000	\$ 1,554,000
	Z-27	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (8)	1,025' S of Risinger to Buffalo Springs	0.59	100%	\$ 4,701,000	\$ 4,701,000
	Z-28	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (9)	Buffalo Springs to McPherson	0.16	100%	\$ 1,191,000	\$ 1,191,000
	Z-29	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (10)	McPherson to Oak Grove E	0.44	100%	\$ 3,476,000	\$ 3,476,000
	Z-30	NCO-L2-T0-NTMS-P0-BOP (110)	Stone (1)	Oak Grove E to Nelson	0.52	100%	\$ 3,696,000	\$ 3,696,000
	Z-31	CCO-L2-T0-NTMS-P0-BOP (110)	Stone (2)	Nelson to FM 1187	0.90	100%	\$ 8,690,000	\$ 8,690,000
	Z-32	CCO-L2-T0-TWLT-P0-BOP (110)	Stone (3)	FM 1187 to McAlister	0.44	100%	\$ 3,597,000	\$ 3,597,000
	Z-33	CCO-L2-T0-TWLT-P0-BOP (110)	Stone (4)	McAlister to Alsbery	0.62	100%	\$ 5,045,000	\$ 5,045,000
	Z-34	NCO-L2-T0-NTMS-P0-BOP (110)	Wichita (3)	Shelby to Oak Grove Shelby	0.52	100%	\$ 3,908,000	\$ 3,908,000
	Z-35	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Wichita (4)	Race to 795' W of Race	0.15	100%	\$ 556,000	\$ 556,000
	Z-36	NCO-L2-T0-NTMS-P0-BOP (110)	Wichita (5)	795' W of Race to McPherson	0.84	100%	\$ 6,695,000	\$ 6,695,000
	Z-37	NCO-L2-T0-NTMS-P0-BOP (110)	Wichita (6)	McPherson to Nicole	0.96	100%	\$ 8,211,000	\$ 8,211,000
	Z-38	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove S (1)	Nelson to 310' S of Nelson	0.06	100%	\$ 470,000	\$ 470,000
	Z-39	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove S (2)	310' S of Nelson to 260' S of Smallwood	0.16	100%	\$ 1,177,000	\$ 1,177,000
	Z-40	NCO-L1-T0-TWLT-P0-BOP (80)	Wildcat Way (1)	FM 1187 to Burleson Retta	1.55	100%	\$ 9,867,000	\$ 9,867,000
	Z-41	NCO-L1-T0-TWLT-P0-BOP (80)	Wildcat Way (2)	Burleson Retta to 455' S of Thomas Crossing	0.44	100%	\$ 2,363,000	\$ 2,363,000
	Z-42	NCO-L1-T0-TWLT-P0-BOP (80)	Wildcat Way (3)	Abner Lee to 615' S of Abner Lee	0.12	100%	\$ 661,000	\$ 661,000
	Z-43	NCO-L1-T0-TWLT-P0-BOP (80)	Abner Drive	1,195' W of Wildcat Way to 260' W of Wildcat Way	0.18	100%	\$ 1,006,000	\$ 1,006,000
	Z-44	NCO-L2-T0-NTMS-P0-BOP (110)	Forest Hill	645' N of Chambers Creek to Shelby	0.45	50%	\$ 3,213,000	\$ 1,606,500
	Z-45	NCO-L2-T0-NTMS-P0-BOP (110)	Rendon	Shelby to Oak Grove Shelby	0.48	50%	\$ 3,428,000	\$ 1,714,000
Intersection Improvements		Type	Road A	Road B	Status	% In Service Area	Total Project Cost	Cost in Service Area
		Roundabout	Alsbery	Stone	Rebuild	75%	\$ 1,500,000	\$ 1,125,000
		Roundabout	Burleson Retta	Wildcat Way	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Everman	Hemphill	New	50%	\$ 1,000,000	\$ 500,000
		Turn Lane Improvements	Everman	Will Rogers	Retrofit	50%	\$ 295,000	\$ 147,500
		Turn Lane Improvements	Everman	Oak Grove	Rebuild	50%	\$ 800,000	\$ 400,000
		Turn Lane Improvements	Everman	FM 731	Retrofit	25%	\$ 345,000	\$ 86,250
		Roundabout	McAlister	Stone	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	McPherson	Hemphill	New	100%	\$ 1,000,000	\$ 1,000,000
		Roundabout	McPherson	Oak Grove	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	McPherson	Wichita	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Turn Lane Improvements	FM 1187	Stone	Rebuild	100%	\$ 900,000	\$ 900,000
		Turn Lane Improvements	FM 1187	Oak Grove S	Rebuild	75%	\$ 600,000	\$ 450,000
		Turn Lane Improvements	FM 1187	Hemphill	Retrofit	100%	\$ 590,000	\$ 590,000
		Turn Lane Improvements	Risinger	FM 731	Rebuild	50%	\$ 1,000,000	\$ 500,000
		Turn Lane Improvements	Risinger	Hemphill	Rebuild	100%	\$ 900,000	\$ 900,000
		Roundabout	Risinger	Oak Grove	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
		Roundabout	Oak Grove Shelby	Wichita	New	50%	\$ 1,000,000	\$ 500,000
		Roundabout	Shelby	Wichita	Rebuild	50%	\$ 1,500,000	\$ 750,000
		Roundabout	Shelby	Rendon	Rebuild	75%	\$ 1,500,000	\$ 1,125,000
Service Area Roadway Project Cost Subtotal							\$169,350,054	
Service Area Intersection Project Cost Subtotal							\$ 15,973,750	
2017 Roadway Impact Fee Study Cost Per Service Area							\$ 23,775	
<b>Total Cost in SERVICE AREA Z</b>							<b>\$185,347,579</b>	

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- These planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

## F. Service Unit Calculation

The basic service unit for the computation of Fort Worth's Transportation Impact Fees is the vehicle-mile of travel during the afternoon peak-hour (as explained on Pg. 63). To determine the cost per service unit, it is necessary to project the growth in vehicle-miles of travel for the service area for the ten-year period.

The growth in vehicle-miles from 2017 to 2027 is based upon projected changes in residential units and employment for the period. In order to determine this growth, estimates of residential units, basic employment, service employment, and retail employment for 2017 were made, along with growth projections for each of these demographic statistics through 2027. The Land Use Assumptions section of this report details the growth estimates used for impact fee determination.

For the purposes of impact fees, all developed and developable land is categorized as either residential or non-residential. For residential land uses, the existing and projected number of dwelling units are estimated. The number of dwelling units in each service area is multiplied by a *transportation demand factor* (discussed in more detail below) to compute the vehicle-miles of travel that occur during the afternoon peak hour. This factor indicates the average amount of demand created by the residential land uses in the service area.

For non-residential land uses, the process is similar. The Land Use Assumptions section of this report provides existing and projected number of building square footages for three (3) categories of employment – basic, service, and retail. These categories correspond to an aggregation of other specific land use categories based on the North American Industrial Classification System (NAICS).

Building square footage is the most common independent variable for the estimation of non-residential trips in the *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10<sup>th</sup> Edition*. This characteristic is more appropriate than the number of employees, because building square footage is tied more closely to trip generation and

is known at the time of application for any development that would require the assessment of an impact fee.

The existing and projected land use assumptions for the dwelling units and the square footage of basic, service, and retail land uses provide the basis for the projected increase in vehicle-miles of travel. As noted earlier, a *transportation demand factor* is applied to these values and then summed to calculate the total peak hour vehicle-miles of demand for each service area.

The *transportation demand factors* are aggregate rates derived from two sources – the *ITE Trip Generation Manual, 10<sup>th</sup> Edition* and the National Household Travel Survey performed by the Federal Highway Administration (FHWA). The *ITE Trip Generation Manual, 10<sup>th</sup> Edition* provides the number of trips that are produced or attracted to the land use for each dwelling unit, square foot of building, or other corresponding unit. For the retail category of land uses, the rate is adjusted to account for the fact that a percentage of retail trips are made by people who would otherwise be traveling past that particular establishment anyway, such as a trip between work and home. For example, a stop at a nearby supermarket on the way home from work does not create a new trip onto the roadway network. These trips are called pass-by trips, and since the travel demand is accounted for in the land use calculations relative to the primary trip, it is necessary to discount the retail trip generation rates to avoid double counting trips. The next component of the *transportation demand factor* accounts for the length of each trip. The average trip length for each category is based on the National Household Travel Survey conducted by the FHWA.



The computation of the *transportation demand factor* is based on the following equation:

Variables:

$$TDF = T * (1 - P_b) * L_{\max}$$

$$\text{where... } L_{\max} = \min(L * OD \text{ or } 6)$$

TDF = Transportation Demand Factor,  
 T = Trip Rate (peak hour trips / unit),  
 P<sub>b</sub> = Pass-By Discount (% of trips),  
 L<sub>max</sub> = Maximum Trip Length (miles),  
 L = Average Trip Length (miles), and  
 OD = Origin-Destination Reduction (50%)

The maximum trip length was limited to six (6) miles based on the maximum trip length within each service area. Chapter 395 of the Texas Local Government Code allows for a service area of six (6) miles, and the service areas within Fort Worth are closely approximated with a six (6) mile distance.

The adjustment made to the average trip length statistic in the computation of the maximum trip length is the origin-destination reduction. This adjustment is made because the Transportation Impact Fee is charged to both the origin and destination end of the trip. For example, impact fee methodology will account for a trip from home to work within Fort Worth to both residential and non-residential land uses. To avoid counting these trips twice as both residential and non-residential trips, a 50% origin-destination (OD) reduction factor is applied. Therefore, only half of the trip length is assessed to each land use, and the total trip is only counted once. This methodology is consistent with that used in the National Household Travel Survey.

**Table 5** shows the derivation of the *Transportation Demand Factor* for the residential land uses and the three (3) non-residential land use categories. The values utilized for all variables shown in the *transportation demand factor* equation are also shown in the table.

**Table 5. Transportation Demand Factor Calculations**

Variable	Residential	Basic	Service	Retail
<b>T</b>	0.99	0.63	1.15	3.81
<b>P<sub>b</sub></b>	0%	0%	0%	34%
<b>L</b>	9.79	10.02	14.65	5.60
<b>L<sub>max</sub> *</b>	4.90	6.00	6.00	2.80
<b>TDF</b>	<b>4.85</b>	<b>3.16</b>	<b>6.90</b>	<b>7.03</b>
* L <sub>max</sub> is less than 6 miles for residential and retail land uses; therefore this lower trip length is used for calculating the TDF for these land uses.				

**Variables:**

- TDF = Transportation Demand Factor,
- T = Trip Rate (peak hour trips / unit),
- P<sub>b</sub> = Pass-By Discount (% of trips),
- L<sub>max</sub> = Maximum Trip Length (miles),
- L = Average Trip Length (miles), and
- OD = Origin-Destination Reduction (50%)

The application of the demographic projections and the *transportation demand factors* are presented in the 10-Year Growth Projections in **Table 6**. This table shows the total vehicle-miles by service area for the years 2017 and 2027. These estimates and projections lead to the Vehicle-Miles of Travel for both 2017 and 2027. The ultimate vehicle-mile carrying capacity of each service area is also shown.

**Table 6. 10-Year Growth Projections**

**2017 Development<sup>1</sup>**

SERVICE AREA	RESIDENTIAL VEHICLE-MILES		NON-RESIDENTIAL SQUARE FEET <sup>4</sup>			TRANS. DEMAND FACTOR <sup>5</sup>			NON-RESIDENTIAL VEHICLE-MILES <sup>9</sup>				TOTAL VEHICLE MILES <sup>10</sup>
	Dwelling Units	Trip Rate TDF <sup>2</sup>	BASIC	SERVICE	RETAIL	BASIC <sup>6</sup>	SERVICE <sup>7</sup>	RETAIL <sup>8</sup>	BASIC	SERVICE	RETAIL	TOTAL	
A	10,618	0.99	7,325,000	1,163,000	59,000	0.63	1.15	3.81	23,147	8,025	415	31,587	83,084
AA	2,411		10,262,000	3,019,000	8,428,000				32,428	20,831	59,249	112,508	124,201
B	3,535		1,608,000	1,013,000	389,000				5,081	6,990	2,735	14,806	31,951
C	10,130		1,505,000	636,000	1,034,000				4,756	4,388	7,269	16,413	65,544
D	53,664		1,768,000	2,823,000	2,700,000				5,587	19,479	18,981	44,047	304,317
E	5,074		901,000	202,000	305,000				2,847	1,394	2,144	6,385	30,994
F	16,929		17,232,000	4,371,000	2,551,000				54,453	30,160	17,934	102,547	184,653
G	9,727		1,321,000	1,288,000	1,240,000				4,174	8,887	8,717	21,778	68,954
L	4,820		3,284,000	1,346,000	1,181,000				10,377	9,287	8,302	27,966	51,343
M	10,517		1,193,000	1,279,000	1,754,000				3,770	8,825	12,331	24,926	75,933
N	4,428	4.85	6,957,000	3,084,000	1,821,000	3.16	6.90	7.03	21,984	21,280	12,802	56,066	77,542
O	6,079		251,000	387,000	588,000				793	2,670	4,134	7,597	37,080
PI	18		1,534,000	0	128,000				4,847	0	900	5,747	5,834
S	6,790		17,000	252,000	1,550,000				54	1,739	10,897	12,690	45,622
T	5,415		495,000	634,000	1,726,000				1,564	4,375	12,134	18,073	44,336
U	3,817		0	0	0				0	0	0	0	18,512
V	120		0	0	0				0	0	0	0	582
W	15,244		0	3,519,000	5,560,000				0	24,281	39,087	63,368	137,301
X	8,328		6,951,000	2,300,000	1,539,000				21,965	15,870	10,819	48,654	89,045
Y	18,696		344,000	585,000	1,029,000				1,087	4,037	7,234	12,358	103,034
Z	6,185		5,866,000	2,198,000	1,152,000				18,537	15,166	8,099	41,802	71,799
<b>Totals</b>	<b>202,545</b>		<b>68,814,000</b>	<b>30,099,000</b>	<b>34,734,000</b>				<b>217,451</b>	<b>207,684</b>	<b>244,183</b>	<b>669,318</b>	<b>1,651,661</b>

**Notes:**

- <sup>1</sup> From Land Use Assumptions
- <sup>2</sup> Transportation Demand Factor for each Service Area (from LUMET) using Single Family Detached Housing land use and trip generation rate
- <sup>3</sup> Calculated by multiplying TDF by the number of dwelling units
- <sup>4</sup> From Land Use Assumptions
- <sup>5</sup> Trip generation rate and Transportation Demand Factors from LUMET for each land use
- <sup>6</sup> 'Basic' corresponds to General Light Industrial land use and trip generation rate
- <sup>7</sup> 'Service' corresponds to General Office land use and trip generation rate
- <sup>8</sup> 'Retail' corresponds to Shopping Center land use and trip generation rate
- <sup>9</sup> Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use
- <sup>10</sup> Residential plus non-residential vehicle-mile totals for each Service Area

**Table 6 (Continued). 10-Year Growth Projections**

**2027 Development<sup>1</sup>**

SERVICE AREA	RESIDENTIAL VEHICLE-MILES		NON-RESIDENTIAL SQUARE FEET <sup>4</sup>			TRANS. DEMAND FACTOR <sup>5</sup>			NON-RESIDENTIAL VEHICLE-MILES <sup>9</sup>			TOTAL VEHICLE MILES <sup>10</sup>
	Dwelling Units	Trip Rate TDF <sup>2</sup>	BASIC	SERVICE	RETAIL	BASIC <sup>6</sup>	SERVICE <sup>7</sup>	RETAIL <sup>8</sup>	BASIC	SERVICE	RETAIL	
A	12,274	0.99	9,800,000	2,523,000	1,369,000	0.63	1.15	3.81	30,968	17,409	9,624	58,001
AA	4,204		16,264,000	4,808,000	9,852,000				51,394	33,175	69,260	153,829
B	6,643		3,210,000	1,483,000	779,000				10,144	10,233	5,476	25,853
C	19,218		3,076,000	1,634,000	5,231,000				9,720	11,275	36,774	57,769
D	65,061		3,108,000	4,745,000	6,126,000				9,821	32,741	43,066	85,628
E	8,415		1,189,000	505,000	908,000				3,757	3,485	6,383	13,625
F	17,854		21,076,000	5,612,000	3,192,000				66,600	38,723	22,440	127,763
G	14,526		1,966,000	1,657,000	1,837,000				6,213	11,433	12,914	30,560
L	4,939		3,438,000	1,441,000	1,318,000				10,864	9,943	9,266	30,073
M	13,460		1,295,000	1,542,000	2,233,000				4,092	10,640	15,698	30,430
N	5,597	4.85	7,791,000	3,702,000	2,488,000	3.16	6.90	7.03	24,620	25,544	17,491	67,655
O	6,472		251,000	436,000	767,000				793	3,008	5,392	9,193
PI	2,643		1,203,000	229,000	1,036,000				3,801	1,580	7,283	12,664
S	9,140		17,000	482,000	2,743,000				54	3,326	19,283	22,663
T	6,127		753,000	794,000	2,253,000				2,379	5,479	15,839	23,697
U	8,608		470,000	253,000	1,217,000				1,485	1,746	8,556	11,787
V	513		0	3,000	8,000				0	21	56	77
W	15,837		0	3,704,000	5,955,000				0	25,558	41,864	67,422
X	9,526		8,385,000	2,711,000	1,751,000				26,497	18,706	12,310	57,513
Y	22,531		355,000	1,457,000	7,004,000				1,122	10,053	49,238	60,413
Z	9,730		7,355,000	3,095,000	2,755,000				23,242	21,356	19,368	63,966
<b>Totals</b>	<b>263,318</b>		<b>91,002,000</b>	<b>42,816,000</b>	<b>60,822,000</b>				<b>287,566</b>	<b>295,434</b>	<b>427,581</b>	<b>1,010,581</b>
												<b>2,287,672</b>

**Notes:**

- <sup>1</sup> From Land Use Assumptions
- <sup>2</sup> Transportation Demand Factor for each Service Area (from LUVMET) using Single Family Detached Housing land use and trip generation rate
- <sup>3</sup> Calculated by multiplying TDF by the number of dwelling units
- <sup>4</sup> From Land Use Assumptions
- <sup>5</sup> Trip generation rate and Transportation Demand Factors from LUVMET for each land use
- <sup>6</sup> 'Basic' corresponds to General Light Industrial land use and trip generation rate
- <sup>7</sup> 'Service' corresponds to General Office land use and trip generation rate
- <sup>8</sup> 'Retail' corresponds to Shopping Center land use and trip generation rate
- <sup>9</sup> Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use
- <sup>10</sup> Residential plus non-residential vehicle-mile totals for each Service Area

**Table 6 (Continued). 10-Year Growth Projections**

**Carrying Capacity<sup>1</sup>**

SERVICE AREA	RESIDENTIAL VEHICLE-MILES		NON-RESIDENTIAL SQUARE FEET <sup>4</sup>			TRANS. DEMAND FACTOR <sup>5</sup>			NON-RESIDENTIAL VEHICLE-MILES <sup>9</sup>				TOTAL VEHICLE MILES <sup>10</sup>
	Dwelling Units	Trip Rate TDF <sup>2</sup>	BASIC	SERVICE	RETAIL	BASIC <sup>6</sup>	SERVICE <sup>7</sup>	RETAIL <sup>8</sup>	BASIC	SERVICE	RETAIL	TOTAL	
A	13,701	0.99	15,818,000	4,480,000	2,055,000	0.63	1.15	3.81	49,985	30,912	14,447	95,344	161,794
AA	6,509		22,993,000	6,648,000	10,564,000				72,658	45,871	74,265	192,794	224,363
B	30,444		4,416,000	2,745,000	2,571,000				13,955	18,941	18,074	50,970	198,623
C	19,752		3,735,000	2,010,000	5,731,000				11,803	13,869	40,289	65,961	161,758
D	65,672		3,670,000	5,092,000	6,652,000				11,597	35,135	46,764	93,496	412,005
E	29,968		4,230,000	1,017,000	1,128,000				13,367	7,017	7,930	28,314	173,659
F	18,302		27,105,000	7,338,000	3,622,000				85,652	50,632	25,463	161,747	250,512
G	24,533		3,647,000	3,000,000	3,466,000				11,525	20,700	24,366	56,591	175,576
L	5,721		4,104,000	1,870,000	2,107,000				12,969	12,903	14,812	40,684	68,431
M	16,763		1,695,000	2,396,000	3,162,000				5,356	16,532	22,229	44,117	125,418
N	6,573	4.85	9,144,000	4,189,000	2,851,000	3.16	6.90	7.03	28,895	28,904	20,043	77,842	109,721
O	8,644		278,000	785,000	1,464,000				878	5,417	10,292	16,587	58,510
PI	9,374		350,000	817,000	3,244,000				1,106	5,637	22,805	29,548	75,012
S	21,153		189,000	804,000	4,610,000				597	5,548	32,408	38,553	141,145
T	7,134		1,301,000	1,133,000	3,317,000				4,111	7,818	23,319	35,248	69,848
U	41,503		1,552,000	612,000	2,017,000				4,904	4,223	14,180	23,307	224,597
V	14,140		0	3,000	8,000				0	21	56	77	68,656
W	19,808		0	4,766,000	7,619,000				0	32,885	53,562	86,447	182,516
X	13,046		12,759,000	4,205,000	2,930,000				40,318	29,015	20,598	89,931	153,204
Y	45,172		472,000	2,483,000	9,422,000				1,492	17,133	66,237	84,862	303,946
Z	19,994		9,632,000	4,241,000	4,947,000				30,437	29,263	34,777	94,477	191,448
<b>Totals</b>	<b>437,906</b>		<b>127,090,000</b>	<b>60,634,000</b>	<b>83,487,000</b>				<b>401,605</b>	<b>418,376</b>	<b>586,916</b>	<b>1,406,897</b>	<b>3,530,741</b>

**Notes:**

- <sup>1</sup> From *Land Use Assumptions*
- <sup>2</sup> Transportation Demand Factor for each Service Area (from LUVMET) using Single Family Detached Housing land use and *trip generation rate*
- <sup>3</sup> Calculated by multiplying TDF by the number of dwelling units
- <sup>4</sup> From *Land Use Assumptions*
- <sup>5</sup> *Trip generation rate* and Transportation Demand Factors from LUVMET for each land use
- <sup>6</sup> 'Basic' corresponds to General Light Industrial land use and *trip generation rate*
- <sup>7</sup> 'Service' corresponds to General Office land use and *trip generation rate*
- <sup>8</sup> 'Retail' corresponds to Shopping Center land use and *trip generation rate*
- <sup>9</sup> Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use
- <sup>10</sup> Residential plus non-residential vehicle-mile totals for each Service Area

**Table 6 (Continued). 10-Year Growth Projections  
Vehicle Miles of Increase (2017-2027)**

<b>SERVICE AREA</b>	<b>VEH-MILES</b>
<b>A</b>	34,446
<b>AA</b>	50,017
<b>B</b>	26,121
<b>C</b>	85,433
<b>D</b>	96,856
<b>E</b>	23,444
<b>F</b>	29,702
<b>G</b>	32,057
<b>L</b>	2,684
<b>M</b>	19,778
<b>N</b>	17,259
<b>O</b>	3,502
<b>PI</b>	19,647
<b>S</b>	21,371
<b>T</b>	9,077
<b>U</b>	35,023
<b>V</b>	1,983
<b>W</b>	6,930
<b>X</b>	14,669
<b>Y</b>	66,655
<b>Z</b>	39,357



## V. TRANSPORTATION IMPACT FEE CALCULATION

### A. Maximum Assessable Impact Fee Per Service Unit

This section presents the maximum assessable impact fee rate calculated for each service area. The maximum assessable impact fee is the sum of the eligible Transportation Impact Fee TIP costs for the service area divided by the growth in travel attributable to new development projected to occur within the 10-year period. A majority of the components of this calculation have been described and presented in previous sections of this report. The purpose of this section is to document the computation for each service area and to demonstrate that the guidelines provided by Chapter 395 of the Texas Local Government Code have been addressed. **Table 7** illustrates the computation of the maximum assessable impact fee computed for each service area. Each row in the table is numbered to simplify explanation of the calculation. The calculation of the maximum assessable impact fee is shown in **Table 8**. Each row in the table is numbered to simplify explanation of the calculation. The Transportation Impact Fee TIP consists of both roadway segment and intersection improvements. The roadway segment component is referred to as the “Roadway Impact Fee TIP,” while the intersection component is referred to as the “Intersection Impact Fee TIP.”

**Table 7. Maximum Assessable Transportation Impact Fee Computation**

Line	Title	Description
1	<i>Total Vehicle-Miles of Capacity Added by the Roadway Impact Fee TIP</i>	The total number of vehicle-miles added to the service area based on the capacity, length, and number of lanes in each project (from <b>Appendix B – TIP Units of Supply</b> )

Each project identified in the TIP will add a certain amount of capacity to the City’s roadway network based on its length and classification. This line displays the total amount added within each service area.

2	<i>Total Vehicle-Miles of Existing Demand</i>	A measure of the amount of traffic currently using the roadway facilities upon which capacity is being added. (from <b>Appendix B – TIP Units of Supply</b> )
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A number of facilities identified in the TIP have traffic currently utilizing a portion of their existing capacity. This line displays the total amount of capacity along these facilities currently being used by existing traffic.

3	<i>Total Vehicle-Miles of Existing Deficiencies</i>	Number of vehicle-miles of travel that are not accommodated by the existing roadway system (from <b>Appendix C – Existing Roadway Facilities Inventory</b> )
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In order to ensure that existing deficiencies on the City’s roadway network are not recoverable through impact fees, this line is based on the entire roadway network within the service area. Any roadway within the service area that is deficient – even those not identified on the Transportation Impact Fee TIP – will have these additional trips removed from the calculation.

<b>4</b>	<i>Net Amount of Vehicle-Miles of Capacity Added</i>	A measurement of the amount of vehicle-miles added by the Transportation Impact Fee TIP that will not be utilized by existing demand ( <b>Line 1 – Line 2 – Line 3</b> )
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This calculation identifies the portion of the Transportation Impact Fee TIP (in vehicle-miles) that may be recoverable through the collection of impact fees.

<b>5</b>	<i>Total Cost of the Roadway Impact Fee TIP within the Service Area</i>	The total cost of the <b>roadway</b> projects within each service area (from <b>Table 4: 10-Year Transportation Impact Fee Transportation Improvements Plan with Conceptual Level Cost Opinions</b> )
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This line simply identifies the total cost of all the roadway projects identified in each service area.

<b>6</b>	<i>Cost of Net Capacity Supplied</i>	The total Roadway Impact Fee TIP cost ( <b>Line 5</b> ) prorated by the ratio of Net Capacity Added ( <b>Line 4</b> ) to Total Capacity Added ( <b>Line 1</b> ). <b>[(Line 4 / Line 1) * (Line 5)]</b>
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Using the ratio of vehicle-miles added by the Roadway Impact Fee TIP available to serve future growth to the total vehicle-miles added, the total cost of the TIP is reduced to the amount available for future growth (i.e. excluding existing usage and deficiencies).

<b>7</b>	<i>Cost to Meet Existing Needs and Usage</i>	The difference between the Total Cost of the Roadway Impact Fee TIP ( <b>Line 5</b> ) and the Cost of the Net Capacity supplied ( <b>Line 6</b> ). ( <b>Line 5 – Line 6</b> )
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This line is provided for information purposes only – it is to present the portion of the total cost of the Transportation Impact Fee TIP that is required to meet existing demand.

<b>8</b>	<i>Total Vehicle-Miles of New Demand over Ten Years</i>	Based upon the growth projection provided in the <b>Land Use Assumptions</b> , an estimate of the number of new vehicle-miles within the service area over the next ten years. (from <b>Table 6</b> )
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This line presents the amount of growth (in vehicle-miles) projected to occur within each service area over the next ten years.

<b>9</b>	<i>Percent of Capacity Added Attributable to New Growth</i>	The result of dividing Total Vehicle-Miles of New Demand ( <b>Line 8</b> ) by the Net Amount of Capacity Added ( <b>Line 4</b> ), limited to 100% ( <b>Line 10</b> ). This calculation is required by Chapter 395 to ensure capacity added is attributable to new growth.
<b>10</b>	<i>Chapter 395 Check</i>	

In order to ensure that the vehicle-miles added by the Roadway Impact Fee TIP do not exceed the amount needed to accommodate growth beyond the ten-year window, a comparison of the two values is performed. If the amount of vehicle-miles added by the Roadway Impact Fee TIP exceeds the growth projected to occur in the next ten years, the Roadway Impact Fee TIP cost is reduced accordingly.

<b>11</b>	<i>Cost of Roadway Impact Fee TIP Attributable to New Growth</i>	The result of multiplying the Cost of Net Capacity Added ( <b>Line 6</b> ) by the Percent of Capacity Added Attributable to New Growth, limited to 100% ( <b>Line 10</b> ).
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This value is the total Roadway Impact Fee TIP project costs (excluding financial costs) that may be recovered through impact fees. This line is determined considering the limitations to impact fees required by the Texas legislature.

<b>12</b>	<i>Total Cost of the <b>Intersection</b> Impact Fee TIP within the Service Area</i>	The total cost of the intersection projects within each service area (from <b>Table 4: 10-Year Transportation Impact Fee Transportation Improvements Plan with Conceptual Level Cost Opinions</b> )
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This line simply identifies the total cost of all the intersection projects identified in each service area.

<b>13</b>	<i>Percent of <b>Intersection</b> Capacity Added Attributable to New Growth</i>	The result of dividing Total Vehicle-Miles of New Demand ( <b>Line 8</b> ) by the vehicle-mile carrying capacity in each service area ( <b>Table 6</b> ).
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In order to ensure that the capacity added by the Intersection Impact Fee TIP does not exceed the amount needed to accommodate growth beyond the ten-year window, the anticipated vehicle mile growth in each service area is calculated as a percentage of the vehicle-mile carrying capacity.

<b>14</b>	<i>Cost of <b>Intersection</b> Impact Fee TIP Attributable to New Growth</i>	The result of multiplying the Cost of Net Capacity Added ( <b>Line 12</b> ) by the Percent of Capacity Added Attributable to New Growth ( <b>Line 13</b> ). ( <b>Line 12 * Line 13</b> )
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This value is the total Intersection Impact Fee TIP project cost (excluding financial costs) that may be recovered through impact fees. This line is determined considering the limitations to impact fees required by the Texas legislature.

<b>15</b>	<i>Cost of <b>Transportation</b> Impact Fee TIP Attributable to New Growth</i>	The result of adding the Cost of the Roadway Impact Fee TIP Attributable to new growth ( <b>Line 11</b> ) to the Cost of the Intersection Impact Fee TIP Attributable to new growth ( <b>Line 14</b> ). ( <b>Line 11 + Line 14</b> )
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This value is the total Transportation Impact Fee TIP project cost (excluding financial costs) that may be recovered through impact fees. This line is determined considering the limitations to impact fees required by the Texas legislature.

## B. Plan for Financing and the Ad Valorem Tax Credit

Chapter 395 of the Texas Local Government Code requires the Transportation Impact Fee Transportation Improvements Plan for Transportation Impact Fees to contain specific enumeration of a plan for awarding the impact fee credit. Section 395.014 of the Code requires:

- (A) a credit for the portion of ad valorem tax and utility service revenues generated by new service units during the program period that is used for the payment of improvements, including the payment of debt, that are included in the transportation improvements plan; or
- (B) In the alternative, a credit equal to 50 percent of the total projected cost of implementing the transportation improvements plan...”

The plan is summarized, as prepared by NewGen Strategies in **Appendix D** and **Appendix E**, Plan for Awarding the Transportation Impact Fee Credit. The following table summarizes the portions of **Table 7** that utilize this credit calculation.

Line	Title	Description
16	Financing Costs	(from <b>Appendix D</b> – Plan for Awarding the Transportation Impact Fee Credit)
17	Interest Earnings	(from <b>Appendix D</b> – Plan for Awarding the Transportation Impact Fee Credit)
18	Existing Impact Fee Fund Balance	The available impact fee funds in each service area as of July 31, 2017.
19	Cost of the Transportation Impact Fee TIP and Financing Attributable to New Growth	The sum of the Cost of Capacity Added Attributable to New Growth, Financing Costs, and Interest Earnings. (Line 15 + Line 16 + Line 17 – Line 18)
20	Pre-Credit Maximum Fee Per Service Unit	Found by dividing the Cost of the TIP and Financing Attributable to New Growth (Line 19) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 8). (Line 19 / Line 8)
21	Credit for Ad Valorem Taxes	A credit for the portion of ad valorem taxes projected to be generated by the new service units, as per Section 395.014 of the Local Government Code. (from <b>Appendix D</b> – Plan for Awarding the Transportation Impact Fee Credit)
22	Recoverable Cost of the Transportation Impact Fee TIP and Financing	The difference between the Cost of the TIP and Financing Attributable to New Growth (Line 19) and the Credit for Ad Valorem Taxes (Line 21). (Line 19 + Line 21)
23	Maximum Assessable Fee Per Service Unit	Found by dividing the Recoverable Cost of the TIP and Financing (Line 22) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 8). (Line 22 / Line 8)

### C. Maximum Assessable Impact Fee Determination

The impact fee determination method employed by NewGen Strategies and Solutions, LLC is developed through a financial based model, which fully recognizes the requirements of Chapter 395, including the recognition of cash and/or debt financing, interest earnings, fund balances, and applicable credits associated with the use of ad valorem taxes. In developing the components of the financial model several assumptions must be made, including the following:

- Financing
  - Method of financing (i.e. cash or debt financing)
  - The level of financing (e.g. 50% debt / 50% cash)
  - Cost of financing
  - Debt repayment structure
- Timing and Level of Expenditures and Revenues
- Interest Earnings
- Annual Service Unit Growth
- Portion of Ad Valorem Tax Revenue Used to Fund Impact Fee Transportation Improvements

The assumptions employed in the maximum assessable impact fee determination provide a reasonable basis for forecasting, however, it must be emphasized that these assumptions may not necessarily reflect actual future conditions. To address this, Chapter 395 requires the monitoring of impact fees through the Impact Fee Advisory Committee, and allows for the option to update or revise impact fees to reflect the actual implementation of the impact fee program.

Once the cost of capacity added that is attributable to growth (**Table 8** - line 15) is determined, it must then be decided how the cost will be financed: cash and/or debt. For any previously funded projects, whether partially funded or in full, actual costs of capital have been included. Based on discussions with City staff, it is assumed that the City will debt finance 50% of the future project costs and cash finance 50%. For debt financing, the cost of financing is based on the City staff's estimates of future debt costs for bonds issued with 20-year terms, as shown in **Appendix E**. Debt service payments for each future debt issue are assumed to remain constant over the issue's term.

Currently, the exact timing and annual level of capital expenditures over the 10-year forecast is indeterminate; therefore, it is assumed that capital expenditures will occur in equal amounts over the 10-year program period. It is also assumed that for debt financed capital projects, the City will expend debt proceeds over a 2-year timeframe. For the calculation of the maximum assessable impact fee, debt is assumed to be issued in equal amounts for each year. Because of the 10-year forecast limitation, and in order to recognize the full amount of debt to be issued for the cost of capacity added that is attributable to growth during the 10-year period, a portion of year 9 and all of year 10 bond proceeds are assumed to be spent fully in year 10.

Because debt is issued over 20-year terms and impact fees developed herein are to be charged over a 10-year period, sufficient fund balance must be generated to meet the future debt service obligations. Because of the generation of the fund balance, excess monies will be available for interest earnings. Chapter 395 states that interest earnings are funds of the impact fee account and are to be held to the same restrictions as impact fee revenues. Therefore, in order to recognize that interest earnings are used to fund transportation

improvements, interest earnings are credited against the costs recoverable through impact fees. It should be noted that Chapter 395 does not require the upfront recognition of interest earnings in the impact fee determination; however, in an effort to acknowledge the time value of the impact fee payers' monies, interest earnings have been credited. Interest is assumed to be earned at an annual rate of 0.65% based on the City's annual return expectations on consolidated cash funds as of August 2017.

As with the timing and level of the capital expenditures over the 10-year forecast, the timing and annual level of service unit growth over the 10-year program period is indeterminate at the present time. As such, it is assumed that service unit growth will be consistent over the 10-year forecast.

Chapter 395 requires a plan for awarding either a credit for the portion of ad valorem tax and/or utility service revenues generated by new service units during the program period that are used for payment of improvements that are included in the Transportation Impact Fee TIP. As an alternative, a credit equal to 50% of the total cost of implementing the Transportation Impact Fee TIP may be used. The City has elected to pursue the determination of a credit for the portion of ad valorem tax revenues generated by new service units during the program period that are used for payment of improvements that are included in the Transportation Impact Fee TIP. It should be noted that the credit is not a determination to recognize the total ad valorem tax revenue generated by new service units, but is only a credit for the portion of ad valorem tax revenue that is used for payment of improvements that are included in the Transportation Impact Fee TIP. Theoretically, the credit determination could be zero (\$0) if the City does not utilize any of the new service unit ad valorem tax revenue to fund improvements that are included in the Transportation Impact Fee TIP. However, to be conservative and recognize potential cash flow issues that can occur with the funding of major capital improvement projects, it is assumed that the debt-funded projects (50% of the improvement costs included in the Transportation Impact Fee TIP) could potentially be funded by ad valorem tax revenue.

Since payments made through ad valorem tax revenue will consist of not only the revenue generated by new service units in the defined service area, but also existing property owners



throughout the City, the portion attributable to the new service units in the defined service area must be isolated, as illustrated in the credit calculation in **Appendix E**.

The following summarizes the financial model's determination of the maximum assessable impact fee:

- Recoverable Impact Fee Transportation Improvements Costs (**Table 8**, line 15)
- Plus: Financing Costs (**Table 8**, line 16)
- Less: Interest Earnings (**Table 8**, line 17)
- Pre Credit Recoverable Costs for Impact Fee (**Table 8**, line 19)
- Less: Credit for Ad Valorem Revenues (**Table 8**, line 21)
- Maximum Recoverable Costs for Impact Fee (**Table 8**, line 22)

Table 8. Maximum Assessable Transportation Impact Fee

SERVICE AREA:		A	AA	B	C	D	E	F	G	L	M	N	O	PI	S	T	U	V	W	X	Y	Z
1	TOTAL VEH-MI OF CAPACITY ADDED BY THE ROADWAY IMPACT FEE TIP (FROM ROADWAY IMPACT FEE TIP SERVICE UNITS OF SUPPLY, APPENDIX B)	26,885	5,106	45,627	33,594	65,011	35,878	16,169	22,076	4,732	31,510	4,537	4,000	1,404	34,153	3,919	63,829	9,106	6,001	20,320	54,650	56,399
2	TOTAL VEH-MI OF EXISTING DEMAND (FROM ROADWAY IMPACT FEE TIP SERVICE UNITS OF SUPPLY, APPENDIX B)	3,451	646	4,974	6,685	31,300	3,140	6,172	5,161	975	13,834	1,390	768	0	2,718	70	253	0	2,475	3,781	4,064	4,803
3	TOTAL VEH-MI OF EXISTING DEFICIENCIES (FROM EXISTING ROADWAY FACILITIES INVENTORY, APPENDIX C)	650	493	141	1,414	2,327	700	979	742	0	2,153	550	33	67	0	0	0	0	301	365	0	393
4	NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2 - LINE 3)	22,784	3,967	40,512	25,495	31,384	32,038	9,018	16,173	3,757	15,523	2,597	3,199	1,337	31,435	3,849	63,576	9,106	3,225	16,174	50,586	51,203
5	TOTAL COST OF THE ROADWAY IMPACT FEE TIP WITHIN SERVICE AREA (FROM TABLES 4A TO 4Z)	\$ 71,573,456	\$ 12,981,275	\$ 121,542,734	\$ 103,673,275	\$ 103,184,236	\$ 101,865,643	\$ 31,636,831	\$ 65,647,719	\$ 3,076,373	\$ 102,365,466	\$ 19,494,775	\$ 12,536,775	\$ 7,518,598	\$ 82,915,483	\$ 12,864,775	\$ 176,173,775	\$ 23,976,275	\$ 18,511,677	\$ 63,450,275	\$ 140,827,662	\$ 169,373,829
6	COST OF NET CAPACITY SUPPLIED (LINE 4 / LINE 1) * (LINE 5)	\$ 60,655,742	\$ 10,085,530	\$ 107,917,226	\$ 78,679,233	\$ 49,812,094	\$ 90,963,027	\$ 17,644,934	\$ 48,093,883	\$ 2,442,505	\$ 50,429,043	\$ 11,158,900	\$ 10,026,286	\$ 7,159,805	\$ 76,316,816	\$ 12,634,988	\$ 175,475,472	\$ 23,976,275	\$ 9,948,368	\$ 50,504,171	\$ 130,355,134	\$ 153,769,538
7	COST TO MEET EXISTING NEEDS AND USAGE (LINE 5 - LINE 6)	\$ 10,917,714	\$ 2,895,745	\$ 13,625,508	\$ 24,994,042	\$ 53,372,142	\$ 10,902,616	\$ 13,991,897	\$ 17,553,836	\$ 633,868	\$ 51,936,423	\$ 8,335,875	\$ 2,510,489	\$ 358,793	\$ 6,598,667	\$ 229,787	\$ 698,303	\$ -	\$ 8,563,309	\$ 12,946,104	\$ 10,472,528	\$ 15,604,291
8	TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 7 AND LAND USE ASSUMPTIONS)	34,446	50,017	26,121	85,433	96,856	23,444	29,702	32,057	2,684	19,778	17,259	3,502	19,647	21,371	9,077	35,023	1,983	6,930	14,669	66,655	39,357
9	PERCENT OF ROADWAY CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 8 / LINE 4)	151.1%	1260.8%	64.4%	335.0%	308.6%	73.1%	329.3%	198.2%	71.4%	127.4%	664.5%	109.4%	1469.4%	67.9%	235.8%	55.0%	21.7%	214.8%	90.6%	131.7%	76.8%
10	IF LINE 8 > LINE 4, REDUCE LINE 9 TO 100%. OTHERWISE NO CHANGE	100.0%	100.0%	64.4%	100.0%	100.0%	73.1%	100.0%	100.0%	71.4%	100.0%	100.0%	100.0%	100.0%	67.9%	100.0%	55.0%	21.7%	100.0%	90.6%	100.0%	76.8%
11	COST OF ROADWAY IMPACT FEE TIP ATTRIBUTABLE TO GROWTH (LINE 6 * LINE 10)	\$ 60,655,742	\$ 10,085,530	\$ 69,498,694	\$ 78,679,233	\$ 49,812,094	\$ 66,493,973	\$ 17,644,934	\$ 48,093,883	\$ 1,743,949	\$ 50,429,043	\$ 11,158,900	\$ 10,026,286	\$ 7,159,805	\$ 51,819,118	\$ 12,634,988	\$ 96,511,510	\$ 5,202,852	\$ 9,948,368	\$ 45,756,779	\$ 130,355,134	\$ 118,095,005
12	TOTAL COST OF THE INTERSECTION IMPACT FEE TIP WITHIN SERVICE AREA (FROM TABLES 4A TO 4Z)	\$ 11,375,000	\$ 3,300,000	\$ 13,375,000	\$ 11,555,000	\$ 11,638,750	\$ 5,820,000	\$ 21,933,750	\$ 8,705,000	\$ 3,720,000	\$ 7,620,000	\$ 15,710,000	\$ 8,490,000	\$ 2,500,000	\$ 11,945,000	\$ 12,585,000	\$ 10,575,000	\$ 1,400,000	\$ 10,477,500	\$ 13,591,250	\$ 15,875,000	\$ 15,973,750
13	PERCENT OF INTERSECTION CAPACITY ADDED ATTRIBUTABLE TO GROWTH (FROM TABLE 6 AND LAND USE ASSUMPTIONS)	21.3%	22.3%	13.2%	52.8%	23.5%	13.5%	11.9%	18.3%	3.9%	15.8%	15.7%	6.0%	26.2%	15.1%	13.0%	15.6%	2.9%	3.8%	9.6%	21.9%	20.6%
14	COST OF INTERSECTION IMPACT FEE TIP ATTRIBUTABLE TO GROWTH (LINE 12 * LINE 13)	\$ 2,422,875	\$ 735,900	\$ 1,765,500	\$ 6,101,040	\$ 2,735,106	\$ 785,700	\$ 2,610,116	\$ 1,593,015	\$ 145,080	\$ 1,203,960	\$ 2,466,470	\$ 509,400	\$ 655,000	\$ 1,803,695	\$ 1,636,050	\$ 1,649,700	\$ 40,600	\$ 398,145	\$ 1,304,760	\$ 3,476,625	\$ 3,290,593
15	COST OF TRANSPORTATION IMPACT FEE TIP ATTRIBUTABLE TO GROWTH (LINE 11 + LINE 14)	\$ 63,078,617	\$ 10,821,430	\$ 71,264,194	\$ 84,780,273	\$ 52,547,200	\$ 67,279,673	\$ 20,255,050	\$ 49,686,898	\$ 1,889,029	\$ 51,633,003	\$ 13,625,370	\$ 10,535,686	\$ 7,814,805	\$ 53,622,813	\$ 14,271,038	\$ 98,161,210	\$ 5,243,452	\$ 10,346,513	\$ 47,061,539	\$ 133,831,759	\$ 121,385,598
16	FINANCING COSTS (FROM APPENDIX D)	\$ 13,344,724	\$ 3,087,475	\$ 19,386,394	\$ 24,173,273	\$ 3,505,631	\$ 18,469,038	\$ 3,041,049	\$ 10,919,836	\$ (430,387)	\$ 13,726,574	\$ 3,889,232	\$ 3,005,770	\$ 2,234,561	\$ 14,888,958	\$ 4,073,854	\$ 28,061,361	\$ 1,492,511	\$ 261,167	\$ 13,449,951	\$ 31,580,377	\$ 33,893,495
17	INTEREST EARNINGS (FROM APPENDIX D)	\$ (2,658,678)	\$ (619,114)	\$ (3,321,350)	\$ (4,283,138)	\$ (1,810,935)	\$ (3,131,734)	\$ (770,860)	\$ (2,090,793)	\$ (21,997)	\$ (2,410,530)	\$ (727,871)	\$ (525,372)	\$ (377,128)	\$ (2,607,150)	\$ (721,678)	\$ (4,737,889)	\$ (252,042)	\$ (347,073)	\$ (2,345,004)	\$ (6,051,771)	\$ (5,810,307)
18	EXISTING IMPACT FEE FUND BALANCE	\$ 3,801,158	\$ 3,005,555	\$ 549,834	\$ 6,405,472	\$ 8,931,787	\$ 1,603,710	\$ 2,410,940	\$ 722,605	\$ 252,175	\$ 292,876	\$ 2,181,034	\$ 544,910	\$ -	\$ 2,047,407	\$ 1,035,694	\$ 115,590	\$ -	\$ 858,591	\$ 2,282,342	\$ 2,086,680	\$ 3,192,650
19	COST OF THE TRANSPORTATION IMPACT FEE TIP AND FINANCING ATTRIBUTABLE TO NEW GROWTH (LINE 15 + LINE 16 + LINE 17 - LINE 18)	\$ 69,963,505	\$ 10,284,237	\$ 86,779,404	\$ 98,264,936	\$ 45,310,110	\$ 81,013,267	\$ 20,114,299	\$ 57,793,336	\$ 1,184,470	\$ 62,656,171	\$ 14,605,697	\$ 12,471,173	\$ 9,672,238	\$ 63,857,214	\$ 16,587,520	\$ 121,369,092	\$ 6,483,922	\$ 9,402,016	\$ 55,884,143	\$ 157,273,685	\$ 146,276,135
20	PRE-CREDIT MAXIMUM FEE PER SERVICE UNIT (LINE 19 / LINE 8)	\$ 2,031	\$ 206	\$ 3,322	\$ 1,150	\$ 468	\$ 3,456	\$ 677	\$ 1,803	\$ 441	\$ 3,168	\$ 846	\$ 3,561	\$ 492	\$ 2,988	\$ 1,827	\$ 3,465	\$ 3,270	\$ 1,357	\$ 3,810	\$ 2,360	\$ 3,717
21	CREDIT FOR AD VALOREM TAXES (FROM APPENDIX D)	\$ (197,309)	\$ (43,420)	\$ (163,945)	\$ (572,136)	\$ (493,742)	\$ (145,537)	\$ (57,867)	\$ (138,441)	\$ (857)	\$ (87,329)	\$ (19,137)	\$ (3,019)	\$ (12,504)	\$ (93,732)	\$ (10,580)	\$ (278,091)	\$ (849)	\$ (7,461)	\$ (56,315)	\$ (739,656)	\$ (410,191)
22	RECOVERABLE COST OF ROADWAY IMPACT FEE TIP AND FINANCING (LINE 19 + LINE 21)	\$ 69,766,196	\$ 10,240,817	\$ 86,615,459	\$ 97,692,801	\$ 44,816,368	\$ 80,867,730	\$ 20,056,432	\$ 57,654,894	\$ 1,183,613	\$ 62,568,842	\$ 14,586,560	\$ 12,468,154	\$ 9,659,734	\$ 63,763,481	\$ 16,576,940	\$ 121,091,000	\$ 6,483,072	\$ 9,394,555	\$ 55,827,829	\$ 156,534,029	\$ 145,865,944
23	MAXIMUM ASSESSABLE FEE PER SERVICE UNIT (LINE 22 / LINE 8)	\$ 2,025	\$ 205	\$ 3,316	\$ 1,144	\$ 463	\$ 3,449	\$ 675	\$ 1,799	\$ 441	\$ 3,164	\$ 845	\$ 3,560	\$ 492	\$ 2,984	\$ 1,826	\$ 3,457	\$ 3,269	\$ 1,356	\$ 3,806	\$ 2,348	\$ 3,706

#### D. Service Unit Demand Per Unit of Development

The Transportation Impact Fee is determined by multiplying the impact fee rate by the number of service units projected for the proposed development. For this purpose, the City will utilize the Land Use/Vehicle-Mile Equivalency Table (LUVMET), presented in **Table 9**. This table lists the predominant land uses that may occur within the City of Fort Worth. For each land use, the development unit that defines the development's magnitude with respect to transportation demand is shown. Although every possible use cannot be anticipated, the majority of local uses are found in this table. The descriptions for each land use are presented in **Table 9**. If the exact use is not listed, one similar in trip-making characteristics can serve as a reasonable proxy. The individual land uses are grouped into categories, such as residential, office, commercial, industrial, and institutional.

The trip rates presented for each land use is a fundamental component of the LUVMET. The trip rate is the average number of trips generated during the afternoon peak hour by each land use per development unit. The next column in **Table 9**, if applicable to the land use, presents the number of trips to and from certain land uses reduced by pass-by trips, as previously discussed.

The definitive source of the trip generation and pass-by statistics is the *ITE Trip Generation Manual, 10<sup>th</sup> Edition*, the latest edition. This manual utilizes trip generation studies for a variety of land uses throughout the United States, and is the standard used by traffic engineers and transportation planners for traffic impact analysis, site design, and transportation planning. However, for land uses not contained within the 10<sup>th</sup> Edition of the *ITE Trip Generation Manual*, an alternative service unit demand could be calculated by completing a trip generation study based on the procedure identified in the *ITE Trip Generation Handbook*.

To convert vehicle trips to vehicle-miles, it is necessary to multiply trips by trip length. The trip length values are based on the *National Household Travel Survey* performed by the FHWA. The other adjustment to trip length is the 50% origin-destination reduction to avoid double counting of trips. At this stage, another important aspect of the state law is applied – the

limit on transportation service unit demand. If the adjusted trip length is above six (6) miles, the maximum trip length used for calculation is reduced to six (6) miles. This reduction, as discussed previously, limits the maximum trip length to the approximate size of the service areas.

The remaining column in the LUVMET shows the vehicle-miles per development unit. This number is the product of the trip rate and the maximum trip length. This number, previously referred to as the *Transportation Demand Factor*, is used in the impact fee to compute the number of service units attributed to each land use category. The number of service units is multiplied by the impact fee rate (established by City ordinance) in order to determine the impact fee for a development.

**Table 9. Land Use / Vehicle-Mile Equivalency Table (LUVMET)**

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass-by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi)	Veh-Mi Per Dev-Unit
<b>PORT AND TERMINAL</b>											
Truck Terminal	030	1,000 SF GFA	1.87			1.87	10.02	50%	5.01	5.01	9.37
<b>INDUSTRIAL</b>											
General Light Industrial	110	1,000 SF GFA	0.63			0.63	10.02	50%	5.01	5.01	3.16
Manufacturing	140	1,000 SF GFA	0.67			0.67	10.02	50%	5.01	5.01	3.36
Warehousing	150	1,000 SF GFA	0.32			0.32	10.02	50%	5.01	5.01	1.60
Mini-Warehouse	151	1,000 SF GFA	0.26			0.26	10.02	50%	5.01	5.01	1.30
<b>RESIDENTIAL</b>											
Single-Family Detached Housing	210	Dwelling Unit	0.99			0.99	9.79	50%	4.90	4.90	4.85
Apartment/Multi-family	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.90	2.74
Multifamily Housing (Low-Rise)	220	Dwelling Unit	0.56			0.56	9.79	50%	4.90	4.90	2.74
Multifamily Housing (Mid-Rise)	221	Dwelling Unit	0.44			0.44	9.79	50%	4.90	4.90	2.16
Multifamily Housing (High-Rise)	222	Dwelling Unit	0.36			0.36	9.79	50%	4.90	4.90	1.76
Senior Adult Housing-Detached	251	Dwelling Unit	0.30			0.30	9.79	50%	4.90	4.90	1.47
Senior Adult Housing-Attached	252	Dwelling Unit	0.26			0.26	9.79	50%	4.90	4.90	1.27
Assisted Living	254	Beds	0.26			0.26	9.79	50%	4.90	4.90	1.27
<b>LODGING</b>											
Hotel	310	Room	0.60			0.60	6.43	50%	3.22	3.22	1.93
Motel/ Other Lodging Facilities	320	Room	0.38			0.38	6.43	50%	3.22	3.22	1.22
<b>RECREATIONAL</b>											
Golf Driving Range	432	Tee	1.25			1.25	7.86	50%	3.93	3.93	4.91
Golf Course	430	Acre	0.28			0.28	7.86	50%	3.93	3.93	1.10
Recreational Community Center	495	1,000 SF GFA	2.31			2.31	7.86	50%	3.93	3.93	9.08
Ice Skating Rink	465	1,000 SF GFA	1.33			1.33	7.86	50%	3.93	3.93	5.23
Miniature Golf Course	431	Hole	0.33			0.33	7.86	50%	3.93	3.93	1.30
Multiplex Movie Theater	445	Screens	13.73			13.73	15.77	50%	7.89	6.00	82.38
Racquet / Tennis Club	491	Court	3.82			3.82	7.86	50%	3.93	3.93	15.01
<b>INSTITUTIONAL</b>											
Church	560	1,000 SF GFA	0.49			0.49	8.31	50%	4.16	4.16	2.04
Day Care Center	565	1,000 SF GFA	11.12	44%	B	6.23	3.49	50%	1.75	1.75	10.90
Primary/Middle School (1-8)	522	Students	0.17			0.17	3.49	50%	1.75	1.75	0.30
High School	530	Students	0.14			0.14	3.49	50%	1.75	1.75	0.25
Junior / Community College	540	Students	0.11			0.11	10.44	50%	5.22	5.22	0.57
University / College	550	Students	0.15			0.15	10.44	50%	5.22	5.22	0.78
<b>MEDICAL</b>											
Clinic	630	1,000 SF GFA	3.28			3.28	9.85	50%	4.93	4.93	16.17
Hospital	610	1,000 SF GFA	0.97			0.97	9.85	50%	4.93	4.93	4.78
Nursing Home	620	Beds	0.22			0.22	9.85	50%	4.93	4.93	1.08
Animal Hospital/Veterinary Clinic	640	1,000 SF GFA	3.53	30%	B	2.47	9.85	50%	4.93	4.93	12.18
<b>OFFICE</b>											
Corporate Headquarters Building	714	1,000 SF GFA	0.60			0.60	14.65	50%	7.33	6.00	3.60
General Office Building	710	1,000 SF GFA	1.15			1.15	14.65	50%	7.33	6.00	6.90
Medical-Dental Office Building	720	1,000 SF GFA	3.46			3.46	9.85	50%	4.93	4.93	17.06
Single Tenant Office Building	715	1,000 SF GFA	1.71			1.71	14.65	50%	7.33	6.00	10.26
Office Park	750	1,000 SF GFA	1.07			1.07	14.65	50%	7.33	6.00	6.42

**Key to Sources of Pass-by Rates:**

A: ITE Trip Generation Handbook 3rd Edition (August 2014)

B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories

**Table 9 (Cont'd). Land Use / Vehicle-Mile Equivalency Table (LUVMET)**

Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass-by Rate	Pass-by Source	Trip Rate	Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi)	Veh-Mi Per Dev-Unit
<b>COMMERCIAL</b>											
<b>Automobile Related</b>											
Automobile Care Center	942	1,000 SF GFA	3.11	40%	B	1.87	4.45	50%	2.23	2.23	4.17
Automobile Parts Sales	843	1,000 SF GFA	4.91	43%	A	2.80	4.45	50%	2.23	2.23	6.24
Gasoline/Service Station	944	Vehicle Fueling Position	14.03	42%	A	8.14	1.20	50%	0.60	0.60	4.88
Gasoline/Service Station w/ Conv Market and Car Wash	945	Vehicle Fueling Position	22.36	56%	B	9.84	1.20	50%	0.60	0.60	5.90
New Car Sales	841	1,000 SF GFA	3.75	20%	B	3.00	4.45	50%	2.23	2.23	6.69
Quick Lubrication Vehicle Shop	941	Servicing Positions	4.85	40%	B	2.91	4.45	50%	2.23	2.23	6.49
Self-Service Car Wash	947	Stall	5.54	40%	B	3.32	1.20	50%	0.60	0.60	1.99
Tire Store	848	1,000 SF GFA	3.98	28%	A	2.87	4.45	50%	2.23	2.23	6.40
<b>Dining</b>											
Fast Food Restaurant with Drive-Thru Window	934	1,000 SF GFA	32.67	50%	A	16.34	5.64	50%	2.82	2.82	46.08
Fast Food Restaurant without Drive-Thru Window	933	1,000 SF GFA	28.34	50%	B	14.17	5.64	50%	2.82	2.82	39.96
High Turnover (Sit-Down) Restaurant	932	1,000 SF GFA	9.77	43%	A	5.57	6.07	50%	3.04	3.04	16.93
Quality Restaurant	931	1,000 SF GFA	7.80	44%	A	4.37	6.07	50%	3.04	3.04	13.28
Coffee/Donut Shop with Drive-Thru Window	937	1,000 SF GFA	43.38	70%	A	13.01	4.53	50%	2.27	2.27	29.53
<b>Other Retail</b>											
Free-Standing Discount Store	815	1,000 SF GFA	4.83	30%	C	3.38	5.60	50%	2.80	2.80	9.46
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	B	4.86	5.60	50%	2.80	2.80	13.61
Home Improvement Superstore	862	1,000 SF GFA	2.33	48%	A	1.21	5.60	50%	2.80	2.80	3.39
Pharmacy/Drugstore w/o Drive-Thru Window	880	1,000 SF GFA	8.51	53%	A	4.00	5.60	50%	2.80	2.80	11.20
Pharmacy/Drugstore w/ Drive-Thru Window	881	1,000 SF GFA	10.29	49%	A	5.25	5.60	50%	2.80	2.80	14.70
Shopping Center	820	1,000 SF GLA	3.81	34%	A	2.51	5.60	50%	2.80	2.80	7.03
Supermarket	850	1,000 SF GFA	9.24	36%	A	5.91	5.60	50%	2.80	2.80	16.55
Toy/Children's Superstore	864	1,000 SF GFA	5.00	30%	B	3.50	5.60	50%	2.80	2.80	9.80
Department Store	875	1,000 SF GFA	1.95	30%	B	1.37	5.60	50%	2.80	2.80	3.84
<b>SERVICES</b>											
Walk-In Bank	911	1,000 SF GFA	12.13	40%	B	7.28	4.45	50%	2.23	2.23	16.23
Drive-In Bank	912	Drive-in Lanes	27.15	47%	A	14.39	4.45	50%	2.23	2.23	32.09
Hair Salon	918	1,000 SF GLA	1.45	30%	B	1.02	6.41	50%	3.21	3.21	3.27

**Key to Sources of Pass-by Rates:**

A: ITE Trip Generation Handbook 3rd Edition (August 2014)

B: Estimated by Kimley-Horn based on ITE rates for similar categories

C: ITE rate adjusted upward by KHA based on logical relationship to other categories



**Table 10. Land Use Descriptions**

Land Use Category	IIE Land Use Code	Land Use Description
<b>PORT AND TERMINAL</b>		
Truck Terminal	030	Point of good transfer between trucks or between trucks and rail
<b>INDUSTRIAL</b>		
General Light Industrial	110	Emphasis on activities other than manufacturing; typically employing fewer than 500 workers
Manufacturing	140	Primary activity is conversion of raw materials or parts into finished products
Warehousing	150	Devoted to storage of materials but may include office and maintenance areas
Mini-Warehouse	151	Facilities with a number of units rented to others for the storage of goods
<b>RESIDENTIAL</b>		
Single-Family Detached Housing	210	Single-family detached homes on individual lots
Apartment/Multi-family	220	At least 4 rental dwelling units per building
Multifamily Housing (Low-Rise)	220	At least 3 rental dwelling units and one or two levels (floors) per building
Multifamily Housing (Mid-Rise)	221	At least 3 rental dwelling units and between three and ten levels (floors) per building
Multifamily Housing (High-Rise)	222	At least 3 rental dwelling units and more than ten levels (floors) per building
Senior Adult Housing-Detached	251	Consists of detached independent living developments that include amenities such as golf courses and swimming pools
Senior Adult Housing-Attached	252	Consists of attached independent living developments that include limited social or recreation services
Assisted Living	254	Residential settings that provide either routine general protective oversight or assistance with activities.
<b>LODGING</b>		
Hotel	310	Lodging facilities that typically have on-site restaurants, lounges, meeting and/or banquet rooms, or other retail shops and services
Motel / Other Lodging Facilities	320	Lodging facilities that may have small on-site restaurant or buffet area but little or no meeting space
<b>RECREATIONAL</b>		
Golf Driving Range	432	Facilities with driving tees for practice; may provide individual or group lessons; may have pro shop and/or
Golf Course	430	May include municipal courses and private country clubs; may have driving ranges, pro shops, and restaurant/banquet facilities
Recreational Community Center	495	Category includes racquet clubs, health/fitness clubs, can include facilities such as YMCA's
Ice Skating Rink	465	Rinks for ice skating and related sports; may contain spectator areas and refreshment facilities
Miniature Golf Course	431	One or more individual putting courses; category should not be used when part of a larger entertainment center (with batting cages, video game centers, etc)
Multiplex Movie Theater	445	Movie theater with audience seating, minimum of ten screens, lobby, and refreshment area.
Racquet / Tennis Club	491	Indoor or outdoor facilities specifically designed for playing tennis
<b>INSTITUTIONAL</b>		
Church	560	Churches and houses of worship
Day Care Center	565	Generally includes facilities for care of pre-school aged children, generally includes classrooms, offices, eating areas, and playgrounds
Primary/Middle School (1-8)	522	Serves students who have not yet entered high school
High School	530	Serves students who have completed middle or junior high school
Junior / Community College	540	Two-year junior, community, or technical colleges
University / College	550	Four-year universities or colleges that may or may not offer graduate programs
<b>MEDICAL</b>		
Clinic	630	Facilities with limited diagnostic and outpatient care
Hospital	610	Medical and surgical facilities with overnight accommodations
Nursing Home	620	Rest and convalescent homes with residents who do little or no driving
Animal Hospital/Veterinary Clinic	640	Rest and convalescent homes with residents who do little or no driving

**Table 10 (Cont'd). Land Use Descriptions**

<b>OFFICE</b>		
Corporate Headquarters Building	714	Office building housing corporate headquarters of a single company or organization
General Office Building	710	Office buildings which house multiple tenants
Medical-Dental Office Building	720	Multi-tenant building with offices for physicians and/or dentists
Single Tenant Office Building	715	Single tenant office buildings other than corporate headquarters
Office Park	750	Office buildings (typically low-rise) in a campus setting and served by a common roadway system
<b>COMMERCIAL</b>		
<b>Automobile Related</b>		
Automobile Care Center	942	Automobile repair and servicing including stereo installations and upholstery
Automobile Parts Sales	843	Retail sale of auto parts but no on-site vehicle repair
Gasoline/Service Station	944	Gasoline sales without convenience store or car wash; may include repair
Gasoline/Service Station w/ Conv Market and Car Wash	945	Gasoline sales with convenience store and car washes where the primary business is gasoline sales
New Car Sales	841	New car dealerships, typically with automobile servicing, part sales, and used car sales
Quick Lubrication Vehicle Shop	941	Primary business is to perform oil changes and fluid/filter changes with other repair services not provided
Self-Service Car Wash	947	Has stalls for driver to park and wash the vehicle
Tire Store	848	Primary business is sales and installation of tires; usually do not have large storage or warehouse area
<b>Dining</b>		
Fast Food Restaurant with Drive-Thru Window	934	High-turnover fast food restaurant for carry-out and eat-in customers with a drive-thru window
Fast Food Restaurant without Drive-Thru Window	933	High-turnover fast food restaurant for carry-out and eat-in customers, but without a drive-thru window
High Turnover (Sit-Down) Restaurant	932	Restaurants with turnover rates less than one hour; typically includes moderately-priced chain restaurants
Quality Restaurant	931	Restaurants with turnover rates of one hour or longer; typically require reservations
Coffee/Donut Shop with Drive-Thru Window	937	Coffee and Donut restaurants with drive-through windows, hold long store hours and have limited indoor seating
<b>Other Retail</b>		
Free-Standing Discount Store	815	Category includes free-standing stores with off-street parking; typically offer a variety of products and services with long store hours
Nursery (Garden Center)	817	Building with a yard of planting or landscape stock; may have office, storage, shipping or greenhouse facilities
Home Improvement Superstore	862	Warehouse-type facilities offering a large variety of products and services including lumber, tool, paint, lighting, and fixtures, among other items.
Pharmacy/Drugstore w/o Drive-Thru Window	880	Facilities that primarily sell prescription and non-prescription drugs without a drive-through window
Pharmacy/Drugstore w/ Drive-Thru Window	881	Facilities that primarily sell prescription and non-prescription drugs with a drive-through window
Shopping Center	820	Integrated group of commercial establishments; planning, owned, and managed as a unit
Supermarket	850	Primary business is sale of groceries, food, and household cleaning items; may include photo, pharmacy, video rental, and/or ATM
Toy/Children's Superstore	864	Businesses specializing in child-oriented merchandise
Department Store	875	Free-standing stores that specialize in the sale of apparel, footwear, bedding, home products, jewelry, etc.
<b>SERVICES</b>		
Walk-In Bank	911	Banks with their own parking lots, no drive-in lanes but contain non-drive-through ATMs
Drive-In Bank	912	Banking facilities to conduct financial transactions from the vehicle; also usually apart of walk-in bank
Hair Salon	918	Facilities that specialize in cosmetic and beauty services including hair cutting and styling

## VI. SAMPLE CALCULATIONS

The following section details two (2) examples of maximum assessable Transportation Impact Fee calculations.

### Example 1:

**Development Type - One (1) Unit of Single-Family Housing in Service Area A**

Transportation Impact Fee Calculation Steps – Example 1	
Step 1	<b>Determine Development Unit and Vehicle-Miles Per Development Unit</b>
	<i>From Table 10 [Land Use – Vehicle-Mile Equivalency Table]</i> Development Type: 1 Dwelling Unit of Single-Family Detached Housing Number of Development Units: 1 Dwelling Unit Veh-Mi Per Development Unit: 4.85
Step 2	<b>Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)</b>
	<i>From Table 9, Line 14 [Maximum Assessable Fee Per Service Unit]</i> Service Area A: \$2,025
Step 3	<b>Determine Maximum Assessable Impact Fee</b>
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit Impact Fee = 1 * 4.85 * \$2,025 Maximum Assessable Impact Fee = \$9,921

### Example 2:

**Development Type – 125,000 square foot Home Improvement Superstore in Service Area D**

Transportation Impact Fee Calculation Steps – Example 2	
Step 1	<b>Determine Development Unit and Vehicle-Miles Per Development Unit</b>
	<i>From Table 10 [Land Use – Vehicle-Mile Equivalency Table]</i> Development Type: 125,000 square feet of Home Improvement Superstore Development Unit: 1,000 square feet of Gross Floor Area Veh-Mi Per Development Unit: 3.39
Step 2	<b>Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)</b>
	<i>From Table 9, Line 14 [Maximum Assessable Fee Per Service Unit]</i> Service Area D: \$463
Step 3	<b>Determine Maximum Assessable Impact Fee</b>
	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit Impact Fee = 125 * 3.39 * \$463 Maximum Assessable Impact Fee = \$196,196

## VII. ADOPTION AND ADMINISTRATION OF TRANSPORTATION IMPACT FEES

### A. Adoption Process

Chapter 395 of the Texas Local Government Code stipulates a specific process for the adoption of Transportation Impact Fees. A Capital Improvement Advisory Committee (CIAC) is required to review the Land Use Assumptions and Transportation Impact Fees TIP used in calculating the maximum fee, and to provide the Committee's findings for consideration by the City Council. This CIAC also reviews the Transportation Impact Fee ordinance and provides its findings to the City Council. The composition of the CIAC is required to adequately represent the building and development communities. The City Council then conducts a first public hearing on the Transportation Impact Fee Study and a second public hearing on the Transportation Impact Fee Ordinance.

Following policy adoption, the CIAC is tasked with advising the City Council of the need to update the Land Use Assumptions or the Transportation Impact Fees TIP at any time within five years of adoption. Finally, the CIAC oversees the proper administration of the Impact Fee, once in place, and advises the Council as necessary.

### B. Collection and Use of Transportation Impact Fees

Transportation Impact Fees are assessed when a final plat is recorded. The assessment defines the impact of each unit at the time of platting, according to land use, and may not exceed the maximum impact fee allowed by law. Transportation Impact Fees are collected when a building permit is issued. Therefore, funds are not collected until development-impacts are introduced to the transportation system. Funds collected within a service area can be used only within the same service area. Finally, fees must be utilized within 10 years of collection, or must be refunded with interest.

## VIII. CONCLUSIONS

The City of Fort Worth has established a process to implement the assessment and collection of Transportation Impact Fees through the adoption of an impact fee ordinance that is consistent with Chapter 395 of the Texas Local Government Code.

This report establishes the maximum allowable Transportation Impact Fee that could be assessed by the City of Fort Worth, as shown in the previously referenced **Table 8**.

This document serves as a guide to the assessment of Transportation Impact Fees pertaining to future development, and the City's need for transportation improvements to accommodate that growth. Following the public hearing process, the City Council may establish an impact fee amount to be collected, up to the calculated maximum and establish the Transportation Impact Fee Ordinance accordingly.

In conclusion, it is our opinion that the data and methodology used in this analysis are appropriate and consistent with Chapter 395 of the Texas Local Government Code. Furthermore, the Land Use Assumptions and the proposed Transportation Impact Fee Transportation Improvements Plan are appropriately incorporated into the development of the maximum assessable Transportation Impact Fee.

Below is the listing of the 2017 Transportation Impact Fee Study's Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile):

Service Area	Maximum Fee Per Service Unit (per Vehicle-Mile)	Service Area	Maximum Fee Per Service Unit (per Vehicle-Mile)
A	\$2,025	O	\$3,560
AA	\$205	PI	\$492
B	\$3,316	S	\$2,984
C	\$1,144	T	\$1,826
D	\$463	U	\$3,457
E	\$3,449	V	\$3,269
F	\$675	W	\$1,356
G	\$1,799	X	\$3,806
L	\$441	Y	\$2,348
M	\$3,164	Z	\$3,706
N	\$845		

## APPENDICES

### **A. Conceptual Level Project Cost Projections**

SERVICE AREA A  
SERVICE AREA AA  
SERVICE AREA B  
SERVICE AREA C  
SERVICE AREA D  
SERVICE AREA E  
SERVICE AREA F  
SERVICE AREA G  
SERVICE AREA L  
SERVICE AREA M  
SERVICE AREA N  
SERVICE AREA O  
SERVICE AREA PI  
SERVICE AREA S  
SERVICE AREA T  
SERVICE AREA U  
SERVICE AREA V  
SERVICE AREA W  
SERVICE AREA X  
SERVICE AREA Y  
SERVICE AREA Z

### **B. Transportation Impact Fee TIP Service Units of Supply**

### **C. Existing Roadway Facilities Inventory**

### **D. Plan for Awarding the Transportation Impact Fee Credit Summary**

### **E. Plan for Awarding the Transportation Impact Fee Credit Supporting Exhibits**



## Appendix A – Conceptual Level Project Cost Projections

**Appendix A - Service Area A**

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area A

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
A-1	CCO-L2-T0-TWLT-P0-BOP (110)	Litsey (1)	IH-35 W to 2,620' E of IH-35 W	New	100%	\$ 4,054,000	\$ 4,054,000
A-2	CCO-L2-T0-TWLT-P0-BOP (110)	Litsey (2)	2,435' W of Cleaveland Gibbs to Cleveland Gibbs	Widening	100%	\$ 2,107,000	\$ 2,107,000
A-3	NCO-L2-T0-TWLT-P0-BOP (110)	Litsey (3)	1,300' W of Cleveland Gibbs to Cleveland Gibbs	Widening	100%	\$ 1,866,000	\$ 1,866,000
A-4	NCO-L2-T0-NTMS-P0-BOP (110)	Litsey (4)	Cleveland Gibbs to 875' E of Bluffdale	Previous	100%	\$ 3,264,432	\$ 3,264,432
A-5	CCO-L2-T0-NTMS-P0-BOP (110)	Eagle (3)	Beach to 955' E of Beach	New	100%	\$ 1,385,000	\$ 1,385,000
A-6	CCO-L2-T0-TWLT-P0-BOP (110)	Henrietta Creek (1)	2545' W of Park Vista to 330' E of Park Vista	New	100%	\$ 4,449,000	\$ 4,449,000
A-7	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Henrietta Creek (2)	90' W of Seventeen Lakes to Independence Pkwy	Widening	100%	\$ 1,172,000	\$ 1,172,000
A-8	CCO-L2-T0-NTMS-P0-BOP (110)	Westport (1)	IH-35 W NBFR to 640' E of IH-35 W NBFR	Widening	100%	\$ 1,620,000	\$ 1,620,000
A-9	CCO-L2-T0-NTMS-P0-BOP (110)	Westport (2)	640' E of IH-35 W NBFR to Old Denton	Widening	100%	\$ 4,505,000	\$ 4,505,000
A-10	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (3)	Old Denton to Beach	Widening	100%	\$ 3,833,000	\$ 3,833,000
A-11	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (4)	Beach to Alta Vista	New	100%	\$ 3,342,000	\$ 3,342,000
A-12	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (5)	495' W of SH 170 WBFR to SH 170 WBFR	New	100%	\$ 767,000	\$ 767,000
A-13	CCO-L2-T0-TWLT-P0-BOP (110)	Westport (6)	SH 170 EBFR to 625' W of Park Vista	New	100%	\$ 3,257,000	\$ 3,257,000
A-14	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Westport (7)	400' E of Park Vista to 1370' W of Independence	Widening	100%	\$ 1,388,000	\$ 1,388,000
A-15, D-1	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (1)	485 E of Lilybrook to N Caylor	Widening	50%	\$ 2,086,000	\$ 1,043,000
A-16, D-2	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (2)	N Caylor to 375' E of N Caylor	Widening	50%	\$ 504,000	\$ 252,000
A-17, D-3	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (3)	375' E of N Caylor to Park Vista	Previous	50%	\$ 5,241,058	\$ 2,620,529
A-18, D-4	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (4)	Park Vista to 355' E of Park Vista	Previous	50%	\$ 1,703,344	\$ 851,672
A-19, D-5	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Timberland (5)	355' E of Park Vista to 425' E of Harvest Oaks	Widening	50%	\$ 1,694,000	\$ 847,000
A-20, D-6	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (6)	425' E of Harvest Oaks to Main	New	50%	\$ 1,447,000	\$ 723,500
A-21	CCO-L2-T0-TWLT-P0-BOP (110)	Old Denton (1)	Westport to 1095' S of Westport	Widening	100%	\$ 1,608,000	\$ 1,608,000
A-22	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Old Denton (2)	1095' S of Westport to SH 170 WBFR	Widening	100%	\$ 1,176,000	\$ 1,176,000
A-23	CCO-L2-T0-TWLT-P0-BOP (110)	Beach (1)	(Future) Litsey to 730' S of (Future) Litsey	New	100%	\$ 1,130,000	\$ 1,130,000
A-24	CCO-L2-T0-TWLT-P0-BOP (110)	Beach (2)	730' S of (Future) Litsey to 2,010' S of (Future) Litsey	Widening	100%	\$ 1,881,000	\$ 1,881,000
A-25	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)	Beach (3)	Eagle to 800' S of Eagle	Widening	100%	\$ 599,000	\$ 599,000
A-26	CCO-L2-T0-NTMS-P0-BLC (110)	Beach (4)	800' S of Henrietta Creek to 1,830' S of Henrietta Creek	New	100%	\$ 1,562,000	\$ 1,562,000
A-27	CCO-L2-T0-NTMS-P0-BLC (110)	Beach (5)	1,350' N of Westport to Westport	New	100%	\$ 2,047,000	\$ 2,047,000
A-28	CCO-L2-T0-NTMS-P0-BLC (110)	Beach (6)	Westport to SH 170 WBFR	New	100%	\$ 1,698,000	\$ 1,698,000
A-29, D-32	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Beach (7)	SH 170 EBFR to 2,045' S of SH 170 EBFR	New	50%	\$ 3,415,000	\$ 1,707,500
A-30, D-33	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Beach (8)	410' N of Saratoga Downs to Timberland	Median	50%	\$ 1,285,000	\$ 642,500
A-31	NCO-L1-T0-TWLT-P0-BOP (80)	Park Vista (1)	995' S of Henrietta Creek to 1,480' S of Henrietta Creek	New	100%	\$ 522,000	\$ 522,000
A-32	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Park Vista (2)	Keller Haslet to 415' N of Timberland	Widening	100%	\$ 1,781,000	\$ 1,781,000
A-33	NCO-L2-T0-NTMS-P0-BOP (110)	Park Vista (3)	415' N of Timberland to Timberland	Previous	100%	\$ 1,701,548	\$ 1,701,548
A-34	CCO-L2-T0-TWLT-P0-BOP (110)	Independence	Litsey to Henrietta Creek	New	100%	\$ 10,147,000	\$ 10,147,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Beach	Timberland	Rebuild	25%	\$ 500,000	\$ 125,000
	Turn Lane Improvements	US 377	Timberland	Rebuild	25%	\$ 200,000	\$ 50,000
	Turn Lane Improvements	Eagle	Beach	Rebuild	100%	\$ 200,000	\$ 200,000
	Roundabout	Henrietta Creek	Independence	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Henrietta Creek	Park Vista	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Litsey	Beach	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Westport	Beach	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Westport	Independence	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
NOTES:	Roundabout	Westport	Old Denton	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Westport	Park Vista	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.						
	2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.						

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-1
Name:	Litsey (1)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>		
Limits:	IH-35 W to 2,620' E of IH-35 W			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	2,620			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	8,879	cy	\$ 17.00	\$ 150,941
225	6" Lime Stabilization (with Lime @ 32#/sy)	17,467	sy	\$ 4.00	\$ 69,867
325	11" Concrete Pavement	16,884	sy	\$ 55.00	\$ 928,644
425	6" Curb and Gutter	5,240	lf	\$ 7.00	\$ 36,680
525	4" Topsoil	9,316	sy	\$ 5.00	\$ 46,578
625	10' Concrete Sidewalk	52,400	sf	\$ 6.00	\$ 314,400
723	Auxiliary Lanes and Median Openings Allotment	447	sf	\$ 59.00	\$ 26,349
Paving Construction Cost Subtotal:					\$ 1,573,459
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	47,204
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	47,204
✓	Roadway Drainage		30%	\$	472,038
✓	Illumination		2%	\$	39,127
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	94,408
✓	Sewer	Minor Adjustments	4%	\$	62,938
✓	Establish Turf / Erosion Control		2%	\$	31,469
✓	Basic Landscaping		4%	\$	62,938
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 857,325
Paving and Allowance Subtotal:					\$ 2,430,784
Construction Contingency:					15% \$ 364,618
Construction Cost TOTAL:					\$ 2,796,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,796,000
Engineering/Survey/Testing:		20%	\$ 559,200
Mobilization		5%	\$ 139,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 559,200
Impact Fee Project Cost TOTAL:			\$ 4,054,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-2
Name:	Litsey (2)	<b>This project consists of the reconstruction of the existing gravel facility as a five-lane undivided commercial connector.</b>		
Limits:	2,435' W of Cleaveland Gibbs of Cleveland Gibbs			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	1,435			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	4,863	cy	\$ 17.00	\$ 82,672
225	6" Lime Stabilization (with Lime @ 32#/sy)	9,567	sy	\$ 4.00	\$ 38,267
325	11" Concrete Pavement	9,248	sy	\$ 55.00	\$ 508,628
425	6" Curb and Gutter	2,870	lf	\$ 7.00	\$ 20,090
525	4" Topsoil	5,102	sy	\$ 5.00	\$ 25,511
625	10' Concrete Sidewalk	28,700	sf	\$ 6.00	\$ 172,200
723	Auxiliary Lanes and Median Openings Allotment	245	sf	\$ 59.00	\$ 14,432
Paving Construction Cost Subtotal:					\$ 861,799
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	25,854
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	25,854
✓	Pavement Markings/Markers		3%	\$	25,854
✓	Roadway Drainage	Standard Internal System	30%	\$	258,540
✓	Illumination		2%	\$	21,430
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	51,708
✓	Sewer	Minor Adjustments	4%	\$	34,472
✓	Establish Turf / Erosion Control		2%	\$	17,236
✓	Basic Landscaping		4%	\$	34,472
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 495,420
Paving and Allowance Subtotal:					\$ 1,357,219
Construction Contingency:					15% \$ 203,583
Construction Cost TOTAL:					\$ 1,561,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,561,000
Engineering/Survey/Testing:		20%	\$ 312,200
Mobilization		5%	\$ 78,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 156,100
Impact Fee Project Cost TOTAL:			\$ 2,107,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-3
Name:	Litsey (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>		
Limits:	1,300' W of Cleveland Gibbs to Cleveland Gibbs			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	1,300			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	4,261	cy	\$ 17.00	\$ 72,439
233	6" Lime Stabilization (with Lime @ 32#/sy)	8,378	sy	\$ 4.00	\$ 33,511
333	11" Concrete Pavement	8,089	sy	\$ 55.00	\$ 444,889
433	6" Curb and Gutter	2,600	lf	\$ 7.00	\$ 18,200
533	4" Topsoil	4,911	sy	\$ 5.00	\$ 24,556
633	10' Concrete Sidewalk	26,000	sf	\$ 6.00	\$ 156,000
731	Auxiliary Lanes and Median Openings Allotment	222	sf	\$ 59.00	\$ 13,074
Paving Construction Cost Subtotal:					\$ 762,668
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	22,880
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	22,880
✓	Pavement Markings/Markers		3%	\$	22,880
✓	Roadway Drainage	Standard Internal System	30%	\$	228,800
✓	Illumination		2%	\$	18,965
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	45,760
✓	Sewer	Minor Adjustments	4%	\$	30,507
✓	Establish Turf / Erosion Control		2%	\$	15,253
✓	Basic Landscaping		4%	\$	30,507
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 438,433
Paving and Allowance Subtotal:					\$ 1,201,101
Construction Contingency: 15%					\$ 180,165
Construction Cost TOTAL:					\$ 1,382,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,382,000
Engineering/Survey/Testing:		20%	\$ 276,400
Mobilization		5%	\$ 69,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 138,200
Impact Fee Project Cost TOTAL:			\$ 1,866,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	A-4
Name:	Litsey (4)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$3,264,432 overall to this project, which excludes 280' outside the city limits.</b>		
Limits:	Cleveland Gibbs to 875' E of Bluffdale			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	4,245			
Service Area(s):	A			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:	State Capital Grants - 31002		\$	10,020,996
Engineering/Survey/Testing:			\$	535,307
Other			\$	(7,438,282)
ROW/Easement Acquisition:			\$	146,410
Impact Fee Project Cost TOTAL:			\$	3,264,432

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-5
Name:	Eagle (3)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	Beach to 955' E of Beach			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	955			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	2,865	cy	\$ 17.00	\$ 48,705
223	6" Lime Stabilization (with Lime @ 32#/sy)	5,518	sy	\$ 4.00	\$ 22,071
323	11" Concrete Pavement	5,093	sy	\$ 55.00	\$ 280,133
423	6" Curb and Gutter	3,820	lf	\$ 7.00	\$ 26,740
523	4" Topsoil	4,457	sy	\$ 5.00	\$ 22,283
623	10' Concrete Sidewalk	19,100	sf	\$ 6.00	\$ 114,600
721	Auxiliary Lanes and Median Openings Allotment	383	sf	\$ 59.00	\$ 22,623
Paving Construction Cost Subtotal:					\$ 537,156
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	16,115
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	16,115
✓	Roadway Drainage		30%	\$	161,147
✓	Illumination		2%	\$	13,357
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	32,229
✓	Sewer	Minor Adjustments	4%	\$	21,486
✓	Establish Turf / Erosion Control		2%	\$	10,743
✓	Basic Landscaping		4%	\$	21,486
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 292,678
Paving and Allowance Subtotal:					\$ 829,835
Construction Contingency:					15% \$ 124,475
Construction Cost TOTAL:					\$ 955,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 955,000
Engineering/Survey/Testing:		20%	\$ 191,000
Mobilization		5%	\$ 47,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 191,000
Impact Fee Project Cost TOTAL:			\$ 1,385,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-6
Name:	Henrietta Creek (1)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>		
Limits:	2545' W of Park Vista to 330' E of Park Vista			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	2,875			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	9,743	cy	\$ 17.00	\$ 165,632
225	6" Lime Stabilization (with Lime @ 32#/sy)	19,167	sy	\$ 4.00	\$ 76,667
325	11" Concrete Pavement	18,528	sy	\$ 55.00	\$ 1,019,028
425	6" Curb and Gutter	5,750	lf	\$ 7.00	\$ 40,250
525	4" Topsoil	10,222	sy	\$ 5.00	\$ 51,111
625	10' Concrete Sidewalk	57,500	sf	\$ 6.00	\$ 345,000
723	Auxiliary Lanes and Median Openings Allotment	490	sf	\$ 59.00	\$ 28,913
Paving Construction Cost Subtotal:					\$ 1,726,601
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	51,798
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	51,798
✓	Roadway Drainage	Standard Internal System	30%	\$	517,980
✓	Illumination		2%	\$	42,935
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	103,596
✓	Sewer	Minor Adjustments	4%	\$	69,064
✓	Establish Turf / Erosion Control		2%	\$	34,532
✓	Basic Landscaping		4%	\$	69,064
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 940,767
Paving and Allowance Subtotal:					\$ 2,667,368
Construction Contingency: 15%					\$ 400,105
Construction Cost TOTAL:					\$ 3,068,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,068,000
Engineering/Survey/Testing:		20%	\$ 613,600
Mobilization		5%	\$ 153,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 613,600
Impact Fee Project Cost TOTAL:			\$ 4,449,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-7
Name:	Henrietta Creek (2)	<b>This project consists of the construction of the northern lanes to complete the four-lane divided commercial connector.</b>		
Limits:	90' W of Seventeen Lakes to Independence Pkwy			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,635			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	2,453	cy	\$ 17.00	\$ 41,693
224	6" Lime Stabilization (with Lime @ 32#/sy)	4,723	sy	\$ 4.00	\$ 18,893
324	11" Concrete Pavement	4,360	sy	\$ 55.00	\$ 239,800
424	6" Curb and Gutter	3,270	lf	\$ 7.00	\$ 22,890
524	4" Topsoil	3,815	sy	\$ 5.00	\$ 19,075
624	10' Concrete Sidewalk	16,350	sf	\$ 6.00	\$ 98,100
722	Auxiliary Lanes and Median Openings Allotment	656	sf	\$ 59.00	\$ 38,732
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 479,183</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	14,375
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	14,375
✓	Pavement Markings/Markers		3%	\$	14,375
✓	Roadway Drainage	Standard Internal System	30%	\$	143,755
✓	Illumination		2%	\$	11,916
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	28,751
✓	Sewer	Minor Adjustments	4%	\$	19,167
✓	Establish Turf / Erosion Control		2%	\$	9,584
✓	Basic Landscaping		4%	\$	19,167
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 275,466</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 754,649</b>
<b>Construction Contingency:</b>					<b>15% \$ 113,197</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 868,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 868,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 173,600
<b>Mobilization</b>		5%	\$ 43,400
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 86,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,172,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-8
Name:	Westport (1)	<b>This project consists of the construction of the souther lanes to complete a four-lane divided commercial connector</b>		
Limits:	IH-35 W NBFR to 640' E of IH-35 W NBFR			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	640			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	1,920	cy	\$ 17.00	\$ 32,640
223	6" Lime Stabilization (with Lime @ 32#/sy)	3,698	sy	\$ 4.00	\$ 14,791
323	11" Concrete Pavement	3,413	sy	\$ 55.00	\$ 187,733
423	6" Curb and Gutter	2,560	lf	\$ 7.00	\$ 17,920
523	4" Topsoil	2,987	sy	\$ 5.00	\$ 14,933
623	10' Concrete Sidewalk	12,800	sf	\$ 6.00	\$ 76,800
721	Auxiliary Lanes and Median Openings Allotment	257	sf	\$ 59.00	\$ 15,161
Paving Construction Cost Subtotal:					\$ 359,979
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	10,799
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	10,799
✓	Pavement Markings/Markers		3%	\$	10,799
✓	Roadway Drainage	Standard Internal System	30%	\$	107,994
✓	Illumination		2%	\$	8,951
✓	Special Drainage Structures	Major Stream Crossing(s)	\$ 476,000	\$	476,000
✓	Water	Minor Adjustments	6%	\$	21,599
✓	Sewer	Minor Adjustments	4%	\$	14,399
✓	Establish Turf / Erosion Control		2%	\$	7,200
✓	Basic Landscaping		4%	\$	14,399
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 682,940
Paving and Allowance Subtotal:					\$ 1,042,919
Construction Contingency:					15% \$ 156,438
Construction Cost TOTAL:					\$ 1,200,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,200,000
Engineering/Survey/Testing:		20%	\$ 240,000
Mobilization		5%	\$ 60,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 120,000
Impact Fee Project Cost TOTAL:			\$ 1,620,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-9
Name:	Westport (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector.</b>		
Limits:	640' E of IH-35 W NBFR to Old Denton			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	3,275			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	9,825	cy	\$ 17.00	\$ 167,025
223	6" Lime Stabilization (with Lime @ 32#/sy)	18,922	sy	\$ 4.00	\$ 75,689
323	11" Concrete Pavement	17,467	sy	\$ 55.00	\$ 960,667
423	6" Curb and Gutter	13,100	lf	\$ 7.00	\$ 91,700
523	4" Topsoil	15,283	sy	\$ 5.00	\$ 76,417
623	10' Concrete Sidewalk	65,500	sf	\$ 6.00	\$ 393,000
721	Auxiliary Lanes and Median Openings Allotment	1,315	sf	\$ 59.00	\$ 77,583
Paving Construction Cost Subtotal:					\$ 1,842,080
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	55,262
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	55,262
✓	Pavement Markings/Markers		3%	\$	55,262
✓	Roadway Drainage	Standard Internal System	30%	\$	552,624
✓	Illumination		2%	\$	45,806
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	110,525
✓	Sewer	Minor Adjustments	4%	\$	73,683
✓	Establish Turf / Erosion Control		2%	\$	36,842
✓	Basic Landscaping		4%	\$	73,683
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,058,950
Paving and Allowance Subtotal:					\$ 2,901,030
Construction Contingency:					15% \$ 435,155
Construction Cost TOTAL:					\$ 3,337,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,337,000
Engineering/Survey/Testing:		20%	\$ 667,400
Mobilization		5%	\$ 166,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 333,700
Impact Fee Project Cost TOTAL:			\$ 4,505,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Westport (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector.</b>	<b>A-10</b>
Limits:	Old Denton to Beach		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	2,610		
Service Area(s):	A		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	8,845	cy	\$ 17.00	\$ 150,365
225	6" Lime Stabilization (with Lime @ 32#/sy)	17,400	sy	\$ 4.00	\$ 69,600
325	11" Concrete Pavement	16,820	sy	\$ 55.00	\$ 925,100
425	6" Curb and Gutter	5,220	lf	\$ 7.00	\$ 36,540
525	4" Topsoil	9,280	sy	\$ 5.00	\$ 46,400
625	10' Concrete Sidewalk	52,200	sf	\$ 6.00	\$ 313,200
723	Auxiliary Lanes and Median Openings Allotment	445	sf	\$ 59.00	\$ 26,248
Paving Construction Cost Subtotal:					\$ 1,567,453
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	47,024
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	47,024
✓	Pavement Markings/Markers		3%	\$	47,024
✓	Roadway Drainage	Standard Internal System	30%	\$	470,236
✓	Illumination		2%	\$	38,977
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	94,047
✓	Sewer	Minor Adjustments	4%	\$	62,698
✓	Establish Turf / Erosion Control		2%	\$	31,349
✓	Basic Landscaping		4%	\$	62,698
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 901,077
Paving and Allowance Subtotal:					\$ 2,468,530
Construction Contingency: 15%					\$ 370,279
Construction Cost TOTAL:					\$ 2,839,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,839,000
Engineering/Survey/Testing:		20%	\$ 567,800
Mobilization		5%	\$ 141,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 283,900
Impact Fee Project Cost TOTAL:			\$ 3,833,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-11
Name:	Westport (4)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>		
Limits:	Beach to Alta Vista			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	2,160			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	7,320	cy	\$ 17.00	\$ 124,440
225	6" Lime Stabilization (with Lime @ 32#/sy)	14,400	sy	\$ 4.00	\$ 57,600
325	11" Concrete Pavement	13,920	sy	\$ 55.00	\$ 765,600
425	6" Curb and Gutter	4,320	lf	\$ 7.00	\$ 30,240
525	4" Topsoil	7,680	sy	\$ 5.00	\$ 38,400
625	10' Concrete Sidewalk	43,200	sf	\$ 6.00	\$ 259,200
723	Auxiliary Lanes and Median Openings Allotment	368	sf	\$ 59.00	\$ 21,723
Paving Construction Cost Subtotal:					\$ 1,297,203
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	38,916
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	38,916
✓	Roadway Drainage		30%	\$	389,161
✓	Illumination		2%	\$	32,257
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	77,832
✓	Sewer	Minor Adjustments	4%	\$	51,888
✓	Establish Turf / Erosion Control		2%	\$	25,944
✓	Basic Landscaping		4%	\$	51,888
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 706,803
Paving and Allowance Subtotal:					\$ 2,004,005
Construction Contingency: 15%					\$ 300,601
Construction Cost TOTAL:					\$ 2,305,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,305,000
Engineering/Survey/Testing:		20%	\$ 461,000
Mobilization		5%	\$ 115,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 461,000
Impact Fee Project Cost TOTAL:			\$ 3,342,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-12
Name:	Westport (5)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>		
Limits:	495' W of SH 170 WBFR to SH 170 WBFR			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	495			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	1,678	cy	\$ 17.00	\$ 28,518
225	6" Lime Stabilization (with Lime @ 32#/sy)	3,300	sy	\$ 4.00	\$ 13,200
325	11" Concrete Pavement	3,190	sy	\$ 55.00	\$ 175,450
425	6" Curb and Gutter	990	lf	\$ 7.00	\$ 6,930
525	4" Topsoil	1,760	sy	\$ 5.00	\$ 8,800
625	10' Concrete Sidewalk	9,900	sf	\$ 6.00	\$ 59,400
723	Auxiliary Lanes and Median Openings Allotment	84	sf	\$ 59.00	\$ 4,978
Paving Construction Cost Subtotal:					\$ 297,276
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	8,918
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	8,918
✓	Roadway Drainage	Standard Internal System	30%	\$	89,183
✓	Illumination		2%	\$	7,392
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	17,837
✓	Sewer	Minor Adjustments	4%	\$	11,891
✓	Establish Turf / Erosion Control		2%	\$	5,946
✓	Basic Landscaping		4%	\$	11,891
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 161,976
Paving and Allowance Subtotal:					\$ 459,251
Construction Contingency: 15%					\$ 68,888
Construction Cost TOTAL:					\$ 529,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 529,000
Engineering/Survey/Testing:		20%	\$ 105,800
Mobilization		5%	\$ 26,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 105,800
Impact Fee Project Cost TOTAL:			\$ 767,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-13
Name:	Westport (6)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>		
Limits:	SH 170 EBFR to 625' W of Park Vista			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	2,105			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	7,134	cy	\$ 17.00	\$ 121,271
225	6" Lime Stabilization (with Lime @ 32#/sy)	14,033	sy	\$ 4.00	\$ 56,133
325	11" Concrete Pavement	13,566	sy	\$ 55.00	\$ 746,106
425	6" Curb and Gutter	4,210	lf	\$ 7.00	\$ 29,470
525	4" Topsoil	7,484	sy	\$ 5.00	\$ 37,422
625	10' Concrete Sidewalk	42,100	sf	\$ 6.00	\$ 252,600
723	Auxiliary Lanes and Median Openings Allotment	359	sf	\$ 59.00	\$ 21,170
Paving Construction Cost Subtotal:					\$ 1,264,172
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	37,925
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	37,925
✓	Roadway Drainage	Standard Internal System	30%	\$	379,252
✓	Illumination		2%	\$	31,436
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	75,850
✓	Sewer	Minor Adjustments	4%	\$	50,567
✓	Establish Turf / Erosion Control		2%	\$	25,283
✓	Basic Landscaping		4%	\$	50,567
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 688,805
Paving and Allowance Subtotal:					\$ 1,952,977
Construction Contingency: 15%					\$ 292,947
Construction Cost TOTAL:					\$ 2,246,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,246,000
Engineering/Survey/Testing:		20%	\$ 449,200
Mobilization		5%	\$ 112,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 449,200
Impact Fee Project Cost TOTAL:			\$ 3,257,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-14
Name:	Westport (7)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided commercial connector.</b>		
Limits:	400' E of Park Vista to 1370' W of Independence			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,935			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	2,903	cy	\$ 17.00	\$ 49,343
224	6" Lime Stabilization (with Lime @ 32#/sy)	5,590	sy	\$ 4.00	\$ 22,360
324	11" Concrete Pavement	5,160	sy	\$ 55.00	\$ 283,800
424	6" Curb and Gutter	3,870	lf	\$ 7.00	\$ 27,090
524	4" Topsoil	4,515	sy	\$ 5.00	\$ 22,575
624	10' Concrete Sidewalk	19,350	sf	\$ 6.00	\$ 116,100
722	Auxiliary Lanes and Median Openings Allotment	777	sf	\$ 59.00	\$ 45,839
Paving Construction Cost Subtotal:					\$ 567,106
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	17,013
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	17,013
✓	Pavement Markings/Markers		3%	\$	17,013
✓	Roadway Drainage	Standard Internal System	30%	\$	170,132
✓	Illumination		2%	\$	14,102
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	34,026
✓	Sewer	Minor Adjustments	4%	\$	22,684
✓	Establish Turf / Erosion Control		2%	\$	11,342
✓	Basic Landscaping		4%	\$	22,684
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 326,011
Paving and Allowance Subtotal:					\$ 893,117
Construction Contingency: 15%					\$ 133,968
Construction Cost TOTAL:					\$ 1,028,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,028,000
Engineering/Survey/Testing:		20%	\$ 205,600
Mobilization		5%	\$ 51,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 102,800
Impact Fee Project Cost TOTAL:			\$ 1,388,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-15, D-1
Name:	Timberland (1)	<b>This project consists of the reconstruction of the existing gravel facility as a four-lane divided neighborhood connector.</b>	
Limits:	485 E of Lilybrook to N Caylor		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,555		
Service Area(s):	A, D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	4,492	cy	\$ 17.00	\$ 76,368
230	6" Lime Stabilization (with Lime @ 32#/sy)	8,639	sy	\$ 4.00	\$ 34,556
330	11" Concrete Pavement	7,948	sy	\$ 55.00	\$ 437,128
430	6" Curb and Gutter	6,220	lf	\$ 7.00	\$ 43,540
530	4" Topsoil	7,602	sy	\$ 5.00	\$ 38,011
630	10' Concrete Sidewalk	31,100	sf	\$ 6.00	\$ 186,600
728	Auxiliary Lanes and Median Openings Allotment	624	sf	\$ 59.00	\$ 36,837
Paving Construction Cost Subtotal:					\$ 853,039
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	25,591
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	25,591
✓	Pavement Markings/Markers		3%	\$	25,591
✓	Roadway Drainage	Standard Internal System	30%	\$	255,912
✓	Illumination		2%	\$	21,212
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	51,182
✓	Sewer	Minor Adjustments	4%	\$	34,122
✓	Establish Turf / Erosion Control		2%	\$	17,061
✓	Basic Landscaping		4%	\$	34,122
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 490,384
Paving and Allowance Subtotal:					\$ 1,343,423
Construction Contingency: 15%					\$ 201,513
Construction Cost TOTAL:					\$ 1,545,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,545,000
Engineering/Survey/Testing:		20%	\$ 309,000
Mobilization		5%	\$ 77,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 154,500
Impact Fee Project Cost TOTAL:			\$ 2,086,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-16, D-2
Name:	Timberland (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:	N Caylor to 375' E of N Caylor		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	375		
Service Area(s):	A, D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	1,083	cy	\$ 17.00	\$ 18,417
230	6" Lime Stabilization (with Lime @ 32#/sy)	2,083	sy	\$ 4.00	\$ 8,333
330	11" Concrete Pavement	1,917	sy	\$ 55.00	\$ 105,417
430	6" Curb and Gutter	1,500	lf	\$ 7.00	\$ 10,500
530	4" Topsoil	1,833	sy	\$ 5.00	\$ 9,167
630	10' Concrete Sidewalk	7,500	sf	\$ 6.00	\$ 45,000
728	Auxiliary Lanes and Median Openings Allotment	151	sf	\$ 59.00	\$ 8,884
Paving Construction Cost Subtotal:					\$ 205,717
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	6,172
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	6,172
✓	Pavement Markings/Markers		3%	\$	6,172
✓	Roadway Drainage	Standard Internal System	30%	\$	61,715
✓	Illumination		2%	\$	5,115
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	12,343
✓	Sewer	Minor Adjustments	4%	\$	8,229
✓	Establish Turf / Erosion Control		2%	\$	4,114
✓	Basic Landscaping		4%	\$	8,229
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 118,260
Paving and Allowance Subtotal:					\$ 323,977
Construction Contingency: 15%					\$ 48,596
Construction Cost TOTAL:					\$ 373,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 373,000
Engineering/Survey/Testing:		20%	\$ 74,600
Mobilization		5%	\$ 18,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 37,300
Impact Fee Project Cost TOTAL:			\$ 504,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	A-17, D-3
Name:	Timberland (3)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$13,102,646 overall to this project. This segment accounts for 40% (\$5,241,058) of the overall project.</b>		
Limits:	375' E of N Caylor to Park Vista			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,140			
Service Area(s):	A, D			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:	Developer Contribution Fund		\$	4,635,796
Engineering/Survey/Testing:			\$	93,274
Other			\$	(207,989)
ROW/Easement Acquisition:			\$	719,978
Impact Fee Project Cost TOTAL:			\$	5,241,058

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	A-18, D-4
Name:	Timberland (4)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$13,102,646 overall to this project. This segment accounts for 13% (\$1,703,344) of the overall project.</b>		
Limits:	Park Vista to 355' E of Park Vista			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	355			
Service Area(s):	A, D			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	1,506,634
Engineering/Survey/Testing:			\$	30,314
Other	Developer Contribution Fund		\$	(67,596)
ROW/Easement Acquisition:			\$	233,993
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$</b>	<b>1,703,344</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted contruction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-19, D-5
Name:	Timberland (5)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided neighborhood connector.</b>	
Limits:	355' E of Park Vista to 425' E of Harvest Oaks		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,420		
Service Area(s):	A, D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	3,496	cy	\$ 17.00	\$ 59,424
231	6" Lime Stabilization (with Lime @ 32#/sy)	6,722	sy	\$ 4.00	\$ 26,889
331	11" Concrete Pavement	6,184	sy	\$ 55.00	\$ 340,144
431	6" Curb and Gutter	4,840	lf	\$ 7.00	\$ 33,880
531	4" Topsoil	5,916	sy	\$ 5.00	\$ 29,578
631	10' Concrete Sidewalk	24,200	sf	\$ 6.00	\$ 145,200
729	Auxiliary Lanes and Median Openings Allotment	972	sf	\$ 59.00	\$ 57,328
Paving Construction Cost Subtotal:					\$ 692,444
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	20,773
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	20,773
✓	Pavement Markings/Markers		3%	\$	20,773
✓	Roadway Drainage	Standard Internal System	30%	\$	207,733
✓	Illumination		2%	\$	17,219
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	41,547
✓	Sewer	Minor Adjustments	4%	\$	27,698
✓	Establish Turf / Erosion Control		2%	\$	13,849
✓	Basic Landscaping		4%	\$	27,698
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 398,063
Paving and Allowance Subtotal:					\$ 1,090,507
Construction Contingency: 15%					\$ 163,576
Construction Cost TOTAL:					\$ 1,255,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,255,000
Engineering/Survey/Testing:		20%	\$ 251,000
Mobilization		5%	\$ 62,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 125,500
Impact Fee Project Cost TOTAL:			\$ 1,694,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-20, D-6
Name:	Timberland (6)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	425' E of Harvest Oaks to Main		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	510		
Service Area(s):	A, D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	1,473	cy	\$ 17.00	\$ 25,047
230	6" Lime Stabilization (with Lime @ 32#/sy)	2,833	sy	\$ 4.00	\$ 11,333
330	11" Concrete Pavement	2,607	sy	\$ 55.00	\$ 143,367
430	6" Curb and Gutter	2,040	lf	\$ 7.00	\$ 14,280
530	4" Topsoil	2,493	sy	\$ 5.00	\$ 12,467
630	10' Concrete Sidewalk	10,200	sf	\$ 6.00	\$ 61,200
728	Auxiliary Lanes and Median Openings Allotment	205	sf	\$ 59.00	\$ 12,082
Paving Construction Cost Subtotal:					\$ 279,775
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	8,393
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	8,393
✓	Roadway Drainage	Standard Internal System	30%	\$	83,932
✓	Illumination		2%	\$	6,957
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	16,786
✓	Sewer	Minor Adjustments	4%	\$	11,191
✓	Establish Turf / Erosion Control		2%	\$	5,595
✓	Basic Landscaping		4%	\$	11,191
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
Allowance Subtotal:					\$ 652,440
Paving and Allowance Subtotal:					\$ 932,215
Construction Contingency:					15% \$ 64,832
Construction Cost TOTAL:					\$ 998,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 998,000
Engineering/Survey/Testing:		20%	\$ 199,600
Mobilization		5%	\$ 49,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 199,600
Impact Fee Project Cost TOTAL:			\$ 1,447,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-21
Name:	Old Denton (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector.</b>		
Limits:	Westport to 1095' S of Westport			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	1,095			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	3,711	cy	\$ 17.00	\$ 63,084
225	6" Lime Stabilization (with Lime @ 32#/sy)	7,300	sy	\$ 4.00	\$ 29,200
325	11" Concrete Pavement	7,057	sy	\$ 55.00	\$ 388,117
425	6" Curb and Gutter	2,190	lf	\$ 7.00	\$ 15,330
525	4" Topsoil	3,893	sy	\$ 5.00	\$ 19,467
625	10' Concrete Sidewalk	21,900	sf	\$ 6.00	\$ 131,400
723	Auxiliary Lanes and Median Openings Allotment	187	sf	\$ 59.00	\$ 11,012
Paving Construction Cost Subtotal:					\$ 657,610
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	19,728
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	19,728
✓	Pavement Markings/Markers		3%	\$	19,728
✓	Roadway Drainage	Standard Internal System	30%	\$	197,283
✓	Illumination		2%	\$	16,353
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	39,457
✓	Sewer	Minor Adjustments	4%	\$	26,304
✓	Establish Turf / Erosion Control		2%	\$	13,152
✓	Basic Landscaping		4%	\$	26,304
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 378,038
Paving and Allowance Subtotal:					\$ 1,035,648
Construction Contingency:					15% \$ 155,347
Construction Cost TOTAL:					\$ 1,191,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,191,000
Engineering/Survey/Testing:		20%	\$ 238,200
Mobilization		5%	\$ 59,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 119,100
Impact Fee Project Cost TOTAL:			\$ 1,608,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-22
Name:	Old Denton (2)	<b>This project consists of the construction of the western lanes to complete the four-lane divided commercial connector.</b>		
Limits:	1095' S of Westport to SH 170 WBFR			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,640			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	2,460	cy	\$ 17.00	\$ 41,820
224	6" Lime Stabilization (with Lime @ 32#/sy)	4,738	sy	\$ 4.00	\$ 18,951
324	11" Concrete Pavement	4,373	sy	\$ 55.00	\$ 240,533
424	6" Curb and Gutter	3,280	lf	\$ 7.00	\$ 22,960
524	4" Topsoil	3,827	sy	\$ 5.00	\$ 19,133
624	10' Concrete Sidewalk	16,400	sf	\$ 6.00	\$ 98,400
722	Auxiliary Lanes and Median Openings Allotment	658	sf	\$ 59.00	\$ 38,851
Paving Construction Cost Subtotal:					\$ 480,648
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	14,419
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	14,419
✓	Pavement Markings/Markers		3%	\$	14,419
✓	Roadway Drainage	Standard Internal System	30%	\$	144,195
✓	Illumination		2%	\$	11,952
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	28,839
✓	Sewer	Minor Adjustments	4%	\$	19,226
✓	Establish Turf / Erosion Control		2%	\$	9,613
✓	Basic Landscaping		4%	\$	19,226
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 276,309
Paving and Allowance Subtotal:					\$ 756,957
Construction Contingency:					15% \$ 113,544
Construction Cost TOTAL:					\$ 871,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 871,000
Engineering/Survey/Testing:		20%	\$ 174,200
Mobilization		5%	\$ 43,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 87,100
Impact Fee Project Cost TOTAL:			\$ 1,176,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-23
Name:	Beach (1)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>		
Limits:	(Future) Litsey to 730' S of (Future) Litsey			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	730			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	2,474	cy	\$ 17.00	\$ 42,056
225	6" Lime Stabilization (with Lime @ 32#/sy)	4,867	sy	\$ 4.00	\$ 19,467
325	11" Concrete Pavement	4,704	sy	\$ 55.00	\$ 258,744
425	6" Curb and Gutter	1,460	lf	\$ 7.00	\$ 10,220
525	4" Topsoil	2,596	sy	\$ 5.00	\$ 12,978
625	10' Concrete Sidewalk	14,600	sf	\$ 6.00	\$ 87,600
723	Auxiliary Lanes and Median Openings Allotment	124	sf	\$ 59.00	\$ 7,341
Paving Construction Cost Subtotal:					\$ 438,406
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	13,152
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	13,152
✓	Roadway Drainage		30%	\$	131,522
✓	Illumination		2%	\$	10,902
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	26,304
✓	Sewer	Minor Adjustments	4%	\$	17,536
✓	Establish Turf / Erosion Control		2%	\$	8,768
✓	Basic Landscaping		4%	\$	17,536
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 238,873
Paving and Allowance Subtotal:					\$ 677,280
Construction Contingency:					15% \$ 101,592
Construction Cost TOTAL:					\$ 779,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 779,000
Engineering/Survey/Testing:		20%	\$ 155,800
Mobilization		5%	\$ 38,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 155,800
Impact Fee Project Cost TOTAL:			\$ 1,130,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-24
Name:	Beach (2)	<b>This project consists of the reconstruction of the existing gravel facility as a five-lane undivided commercial connector.</b>		
Limits:	730' S of (Future) Litsey to 2,010' S of (Future) Litsey			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	1,280			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	4,338	cy	\$ 17.00	\$ 73,742
225	6" Lime Stabilization (with Lime @ 32#/sy)	8,533	sy	\$ 4.00	\$ 34,133
325	11" Concrete Pavement	8,249	sy	\$ 55.00	\$ 453,689
425	6" Curb and Gutter	2,560	lf	\$ 7.00	\$ 17,920
525	4" Topsoil	4,551	sy	\$ 5.00	\$ 22,756
625	10' Concrete Sidewalk	25,600	sf	\$ 6.00	\$ 153,600
723	Auxiliary Lanes and Median Openings Allotment	218	sf	\$ 59.00	\$ 12,873
Paving Construction Cost Subtotal:					\$ 768,713
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	23,061
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	23,061
✓	Pavement Markings/Markers		3%	\$	23,061
✓	Roadway Drainage	Standard Internal System	30%	\$	230,614
✓	Illumination		2%	\$	19,115
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	46,123
✓	Sewer	Minor Adjustments	4%	\$	30,749
✓	Establish Turf / Erosion Control		2%	\$	15,374
✓	Basic Landscaping		4%	\$	30,749
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 441,907
Paving and Allowance Subtotal:					\$ 1,210,620
Construction Contingency:					15% \$ 181,593
Construction Cost TOTAL:					\$ 1,393,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,393,000
Engineering/Survey/Testing:		20%	\$ 278,600
Mobilization		5%	\$ 69,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 139,300
Impact Fee Project Cost TOTAL:			\$ 1,881,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-25
Name:	Beach (3)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided commercial connector.</b>	
Limits:	Eagle to 800' S of Eagle		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	800		
Service Area(s):	A		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
122	Unclassified Street Excavation	1,422	cy	\$ 17.00	\$ 24,178
222	6" Lime Stabilization (with Lime @ 32#/sy)	2,756	sy	\$ 4.00	\$ 11,022
322	11" Concrete Pavement	2,578	sy	\$ 55.00	\$ 141,778
422	6" Curb and Gutter	1,600	lf	\$ 7.00	\$ 11,200
522	4" Topsoil	1,778	sy	\$ 5.00	\$ 8,889
622	6' Concrete Sidewalk	4,800	sf	\$ 6.00	\$ 28,800
720	Auxiliary Lanes and Median Openings Allotment	321	sf	\$ 59.00	\$ 18,952

**Paving Construction Cost Subtotal: \$ 244,818**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 7,345
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 7,345
✓ Pavement Markings/Markers		3%	\$ 7,345
✓ Roadway Drainage	Standard Internal System	30%	\$ 73,445
✓ Illumination		2%	\$ 6,088
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 14,689
✓ Sewer	Minor Adjustments	4%	\$ 9,793
✓ Establish Turf / Erosion Control		2%	\$ 4,896
✓ Basic Landscaping		4%	\$ 9,793
Other:		\$0	\$ -

**Allowance Subtotal: \$ 140,738**

**Paving and Allowance Subtotal: \$ 385,556**

**Construction Contingency: 15% \$ 57,833**

**Construction Cost TOTAL: \$ 444,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 444,000
Engineering/Survey/Testing:		20%	\$ 88,800
Mobilization		5%	\$ 22,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 44,400

**Impact Fee Project Cost TOTAL: \$ 599,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-26
Name:	Beach (4)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	800' S of Henrietta Creek to 1,830' S of Henrietta Creek			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BLC (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,030			
Service Area(s):	A			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
121	Unclassified Street Excavation	3,662	cy	\$ 17.00	\$ 62,258
221	6" Lime Stabilization (with Lime @ 32#/sy)	7,096	sy	\$ 4.00	\$ 28,382
321	11" Concrete Pavement	6,638	sy	\$ 55.00	\$ 365,078
421	6" Curb and Gutter	4,120	lf	\$ 7.00	\$ 28,840
521	4" Topsoil	4,578	sy	\$ 5.00	\$ 22,889
621	6' Concrete Sidewalk	12,360	sf	\$ 6.00	\$ 74,160
719	Auxiliary Lanes and Median Openings Allotment	414	sf	\$ 59.00	\$ 24,400

**Paving Construction Cost Subtotal: \$ 606,007**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 18,180
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 18,180
✓ Roadway Drainage	Standard Internal System	30%	\$ 181,802
✓ Illumination		2%	\$ 15,069
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 36,360
✓ Sewer	Minor Adjustments	4%	\$ 24,240
✓ Establish Turf / Erosion Control		2%	\$ 12,120
✓ Basic Landscaping		4%	\$ 24,240
Other:		\$0	\$ -

**Allowance Subtotal: \$ 330,193**

**Paving and Allowance Subtotal: \$ 936,200**

**Construction Contingency: 15% \$ 140,430**

**Construction Cost TOTAL: \$ 1,077,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,077,000
Engineering/Survey/Testing:		20%	\$ 215,400
Mobilization		5%	\$ 53,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 215,400

**Impact Fee Project Cost TOTAL: \$ 1,562,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-27
Name:	Beach (5)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	1,350' N of Westport to Westport			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BLC (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,350			
Service Area(s):	A			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
121	Unclassified Street Excavation	4,800	cy	\$ 17.00	\$ 81,600
221	6" Lime Stabilization (with Lime @ 32#/sy)	9,300	sy	\$ 4.00	\$ 37,200
321	11" Concrete Pavement	8,700	sy	\$ 55.00	\$ 478,500
421	6" Curb and Gutter	5,400	lf	\$ 7.00	\$ 37,800
521	4" Topsoil	6,000	sy	\$ 5.00	\$ 30,000
621	6' Concrete Sidewalk	16,200	sf	\$ 6.00	\$ 97,200
719	Auxiliary Lanes and Median Openings Allotment	542	sf	\$ 59.00	\$ 31,981

**Paving Construction Cost Subtotal: \$ 794,281**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 23,828
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 23,828
✓ Roadway Drainage	Standard Internal System	30%	\$ 238,284
✓ Illumination		2%	\$ 19,751
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 47,657
✓ Sewer	Minor Adjustments	4%	\$ 31,771
✓ Establish Turf / Erosion Control		2%	\$ 15,886
✓ Basic Landscaping		4%	\$ 31,771
Other:		\$0	\$ -

**Allowance Subtotal: \$ 432,777**

**Paving and Allowance Subtotal: \$ 1,227,058**

**Construction Contingency: 15% \$ 184,059**

**Construction Cost TOTAL: \$ 1,412,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,412,000
Engineering/Survey/Testing:		20%	\$ 282,400
Mobilization		5%	\$ 70,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 282,400

**Impact Fee Project Cost TOTAL: \$ 2,047,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-28
Name:	Beach (6)	This project consists of the construction of a new four-lane divided commercial connector.		
Limits:	Westport to SH 170 WBFR			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BLC (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,120			
Service Area(s):	A			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
121	Unclassified Street Excavation	3,982	cy	\$ 17.00	\$ 67,698
221	6" Lime Stabilization (with Lime @ 32#/sy)	7,716	sy	\$ 4.00	\$ 30,862
321	11" Concrete Pavement	7,218	sy	\$ 55.00	\$ 396,978
421	6" Curb and Gutter	4,480	lf	\$ 7.00	\$ 31,360
521	4" Topsoil	4,978	sy	\$ 5.00	\$ 24,889
621	6' Concrete Sidewalk	13,440	sf	\$ 6.00	\$ 80,640
719	Auxiliary Lanes and Median Openings Allotment	450	sf	\$ 59.00	\$ 26,532
Paving Construction Cost Subtotal:					\$ 658,959
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW	None Anticipated		3%	\$ 19,769
	Traffic Control			0%	\$ -
✓	Pavement Markings/Markers	Standard Internal System		3%	\$ 19,769
✓	Roadway Drainage			30%	\$ 197,688
✓	Illumination			2%	\$ 16,386
	Special Drainage Structures	None Anticipated		\$ -	\$ -
✓	Water	Minor Adjustments		6%	\$ 39,538
✓	Sewer	Minor Adjustments		4%	\$ 26,358
✓	Establish Turf / Erosion Control			2%	\$ 13,179
✓	Basic Landscaping			4%	\$ 26,358
	Other:			\$0	\$ -
Allowance Subtotal:					\$ 359,045
Paving and Allowance Subtotal:					\$ 1,018,003
Construction Contingency:					15% \$ 152,701
Construction Cost TOTAL:					\$ 1,171,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,171,000
Engineering/Survey/Testing:		20%	\$ 234,200
Mobilization		5%	\$ 58,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 234,200
Impact Fee Project Cost TOTAL:			\$ 1,698,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-29, D-32
Name:	Beach (7)	<b>This project consists of the construction of a new four-lane divided commercial connector with a wide median.</b>	
Limits:	SH 170 EBFR to 2,045' S of SH 170 EBFR		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (W)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	2,045		
Service Area(s):	A, D		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	10,225	cy	\$ 17.00	\$ 173,825
203	6" Lime Stabilization (with Lime @ 32#/sy)	14,997	sy	\$ 4.00	\$ 59,987
303	11" Concrete Pavement	14,088	sy	\$ 55.00	\$ 774,828
403	6" Curb and Gutter	8,180	lf	\$ 7.00	\$ 57,260
503	4" Topsoil	12,724	sy	\$ 5.00	\$ 63,622
603	6' Concrete Sidewalk	24,540	sf	\$ 6.00	\$ 147,240
701	Auxiliary Lanes and Median Openings Allotment	821	sf	\$ 59.00	\$ 48,445
Paving Construction Cost Subtotal:					\$ 1,325,206

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW	None Anticipated	3%	\$ 39,756
Traffic Control		0%	\$ -
✓ Pavement Markings/Markers	Standard Internal System	3%	\$ 39,756
✓ Roadway Drainage		30%	\$ 397,562
✓ Illumination		2%	\$ 32,953
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 79,512
✓ Sewer	Minor Adjustments	4%	\$ 53,008
✓ Establish Turf / Erosion Control		2%	\$ 26,504
✓ Basic Landscaping		4%	\$ 53,008
Other:		\$0	\$ -
Allowance Subtotal:			\$ 722,061
Paving and Allowance Subtotal:			\$ 2,047,267
Construction Contingency:			15% \$ 307,090
Construction Cost TOTAL:			\$ 2,355,000

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,355,000
Engineering/Survey/Testing:		20%	\$ 471,000
Mobilization		5%	\$ 117,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 471,000
Impact Fee Project Cost TOTAL:			\$ 3,415,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-30, D-33
Name:	Beach (8)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	410' N of Saratoga Downs to Timberland		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	3,695		
Service Area(s):	A, D		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
110	Unclassified Street Excavation	5,337	cy	\$ 17.00	\$ 90,733
210	6" Lime Stabilization (with Lime @ 32#/sy)	10,264	sy	\$ 4.00	\$ 41,056
310	11" Concrete Pavement	9,443	sy	\$ 55.00	\$ 519,353
410	6" Curb and Gutter	7,390	lf	\$ 7.00	\$ 51,730
510	4" Topsoil	0	sy	\$ 5.00	\$ -
610	11' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
708	Auxiliary Lanes and Median Openings Allotment	1,260	sf	\$ 59.00	\$ 74,320
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 777,191</b>

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 23,316
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 23,316
✓ Pavement Markings/Markers		3%	\$ 23,316
Roadway Drainage	None Anticipated	0%	\$ -
Illumination	None Anticipated	0%	\$ -
Special Drainage Structures	None Anticipated	\$ -	\$ -
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
✓ Establish Turf / Erosion Control		2%	\$ 15,544
✓ Basic Landscaping		4%	\$ 31,088
Other:		\$0	\$ -
<b>Allowance Subtotal:</b>			<b>\$ 116,579</b>
<b>Paving and Allowance Subtotal:</b>			<b>\$ 893,770</b>
<b>Construction Contingency:</b>			<b>15% \$ 134,065</b>
<b>Construction Cost TOTAL:</b>			<b>\$ 1,028,000</b>

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 1,028,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 205,600
<b>Mobilization</b>		5%	\$ 51,400
<b>Previous City contribution</b>			\$ -
<b>Other</b>			\$ -
<b>ROW/Easement Acquisition:</b>	No ROW Acquisition Costs included	0%	\$ -
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,285,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-31
Name:	Park Vista (1)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>		
Limits:	995' S of Henrietta Creek to 1,480' S of Henrietta Creek			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	485			
Service Area(s):	A			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	997	cy	\$ 17.00	\$ 16,948
241	6" Lime Stabilization (with Lime @ 32#/sy)	1,940	sy	\$ 4.00	\$ 7,760
341	11" Concrete Pavement	1,832	sy	\$ 55.00	\$ 100,772
441	6" Curb and Gutter	970	lf	\$ 7.00	\$ 6,790
541	4" Topsoil	1,401	sy	\$ 5.00	\$ 7,006
641	10' Concrete Sidewalk	9,700	sf	\$ 6.00	\$ 58,200
739	Auxiliary Lanes and Median Openings Allotment	83	sf	\$ 59.00	\$ 4,878

**Paving Construction Cost Subtotal: \$ 202,353**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 6,071
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 6,071
✓ Roadway Drainage	Standard Internal System	30%	\$ 60,706
✓ Illumination		2%	\$ 5,032
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 12,141
✓ Sewer	Minor Adjustments	4%	\$ 8,094
✓ Establish Turf / Erosion Control		2%	\$ 4,047
✓ Basic Landscaping		4%	\$ 8,094
Other:		\$0	\$ -

**Allowance Subtotal: \$ 110,256**

**Paving and Allowance Subtotal: \$ 312,609**

**Construction Contingency: 15% \$ 46,891**

**Construction Cost TOTAL: \$ 360,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 360,000
Engineering/Survey/Testing:		20%	\$ 72,000
Mobilization		5%	\$ 18,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 72,000

**Impact Fee Project Cost TOTAL: \$ 522,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-32
Name:	Park Vista (2)	<b>This project consists of the construction of the western lanes to complete the four-lane divided neighborhood connector.</b>	
Limits:	Keller Haslet to 415' N of Timberland		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,545		
Service Area(s):	A		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	3,676	cy	\$ 17.00	\$ 62,494
231	6" Lime Stabilization (with Lime @ 32#/sy)	7,069	sy	\$ 4.00	\$ 28,278
331	11" Concrete Pavement	6,504	sy	\$ 55.00	\$ 357,714
431	6" Curb and Gutter	5,090	lf	\$ 7.00	\$ 35,630
531	4" Topsoil	6,221	sy	\$ 5.00	\$ 31,106
631	10' Concrete Sidewalk	25,450	sf	\$ 6.00	\$ 152,700
729	Auxiliary Lanes and Median Openings Allotment	1,022	sf	\$ 59.00	\$ 60,290

**Paving Construction Cost Subtotal: \$ 728,211**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 21,846
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 21,846
✓ Pavement Markings/Markers		3%	\$ 21,846
✓ Roadway Drainage	Standard Internal System	30%	\$ 218,463
✓ Illumination		2%	\$ 18,108
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 43,693
✓ Sewer	Minor Adjustments	4%	\$ 29,128
✓ Establish Turf / Erosion Control		2%	\$ 14,564
✓ Basic Landscaping		4%	\$ 29,128
Other:		\$0	\$ -

**Allowance Subtotal: \$ 418,624**

**Paving and Allowance Subtotal: \$ 1,146,835**

**Construction Contingency: 15% \$ 172,025**

**Construction Cost TOTAL: \$ 1,319,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,319,000
Engineering/Survey/Testing:		20%	\$ 263,800
Mobilization		5%	\$ 65,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 131,900

**Impact Fee Project Cost TOTAL: \$ 1,781,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*  
 updated: 9/29/2017

Project Information:		Description:	Project No.	A-33
Name:	Park Vista (3)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$13,102,646 overall to this project. This segment accounts for 14% (\$1,701,548) of the overall project.</b>		
Limits:	415' N of Timberland to Timberland			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	415			
Service Area(s):	A			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:	Developer Contribution Fund		\$	1,622,529
Engineering/Survey/Testing:			\$	32,646
Other			\$	(72,796)
ROW/Easement Acquisition:			\$	251,992
Impact Fee Project Cost TOTAL:			\$	1,701,548

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	A-34
Name:	Independence	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>		
Limits:	Litsey to Henrietta Creek			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	6,090			
Service Area(s):	A			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	20,638	cy	\$ 17.00	\$ 350,852
225	6" Lime Stabilization (with Lime @ 32#/sy)	40,600	sy	\$ 4.00	\$ 162,400
325	11" Concrete Pavement	39,247	sy	\$ 55.00	\$ 2,158,567
425	6" Curb and Gutter	12,180	lf	\$ 7.00	\$ 85,260
525	4" Topsoil	21,653	sy	\$ 5.00	\$ 108,267
625	10' Concrete Sidewalk	121,800	sf	\$ 6.00	\$ 730,800
723	Auxiliary Lanes and Median Openings Allotment	1,038	sf	\$ 59.00	\$ 61,246
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 3,657,391</b>

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW	None Anticipated	3%	\$ 109,722
Traffic Control		0%	\$ -
✓ Pavement Markings/Markers	Standard Internal System	3%	\$ 109,722
✓ Roadway Drainage		30%	\$ 1,097,217
✓ Illumination		2%	\$ 90,947
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 219,443
✓ Sewer	Minor Adjustments	4%	\$ 146,296
✓ Establish Turf / Erosion Control		2%	\$ 73,148
✓ Basic Landscaping		4%	\$ 146,296
✓ Other:	Railroad Crossing	\$500,000	\$ 500,000
<b>Allowance Subtotal:</b>			<b>\$ 2,492,790</b>
<b>Paving and Allowance Subtotal:</b>			<b>\$ 6,150,181</b>
<b>Construction Contingency:</b>			<b>15% \$ 847,527</b>
<b>Construction Cost TOTAL:</b>			<b>\$ 6,998,000</b>

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 6,998,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 1,399,600
<b>Mobilization</b>		5%	\$ 349,900
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 1,399,600
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 10,147,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

## Appendix A – Service Area AA

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area AA

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
AA-1	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Eagle	2,190' N of Eagle to Eagle	New	100%	\$ 4,079,000	\$ 4,079,000
AA-2	CCO-L3-T0-NTMS-P0-BOP (130) (W) (1/2)	Intermodal	FM 156 to Old Blue Mound	Widening	100%	\$ 2,804,000	\$ 2,804,000
AA-3, B-5	NCO-L2-T0-NTMS-P0-BOP (110)	Keller Haslet (1)	965' E of John Day to 3,485' E of John Day	Widening	50%	\$ 4,055,000	\$ 2,027,500
AA-4	NCO-L2-T0-TWLT-P0-BOP (110)	Keller Haslet (2)	2,825' W of FM 156 to Keller Haslet	Widening	100%	\$ 668,000	\$ 668,000
AA-5	NCO-L2-T0-TWLT-P0-BOP (110)	Keller Haslet (3)	Keller Haslet to 125' W of FM 156	New	100%	\$ 3,379,000	\$ 3,379,000
	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
Intersection Improvements	Roundabout	Eagle	Heritage	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Intermodal	FM 156	Rebuild	100%	\$ 800,000	\$ 800,000
<b>NOTES:</b> 1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project. 2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.							

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Eagle	<b>This project consists of the construction of a new four-lane divided commercial connector with a wide median.</b>	<b>AA-1</b>
Limits:	2,190' N of Eagle to Eagle		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (W)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	2,190		
Service Area(s):	AA		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	9,247	cy	\$ 17.00	\$ 157,193
206	6" Lime Stabilization (with Lime @ 32#/sy)	12,653	sy	\$ 4.00	\$ 50,613
306	11" Concrete Pavement	11,680	sy	\$ 55.00	\$ 642,400
406	6" Curb and Gutter	8,760	lf	\$ 7.00	\$ 61,320
506	4" Topsoil	15,087	sy	\$ 5.00	\$ 75,433
606	10' Concrete Sidewalk	43,800	sf	\$ 6.00	\$ 262,800
704	Auxiliary Lanes and Median Openings Allotment	879	sf	\$ 59.00	\$ 51,880

**Paving Construction Cost Subtotal: \$ 1,301,640**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 39,049
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 39,049
✓ Roadway Drainage	Standard Internal System	30%	\$ 390,492
✓ Illumination		2%	\$ 32,367
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 78,098
✓ Sewer	Minor Adjustments	4%	\$ 52,066
✓ Establish Turf / Erosion Control		2%	\$ 26,033
✓ Basic Landscaping		4%	\$ 52,066
✓ Other:	Railroad Crossing	\$500,000	\$ 500,000

**Allowance Subtotal: \$ 1,209,220**

**Paving and Allowance Subtotal: \$ 2,510,860**

**Construction Contingency: 15% \$ 301,629**

**Construction Cost TOTAL: \$ 2,813,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,813,000
Engineering/Survey/Testing:		20%	\$ 562,600
Mobilization		5%	\$ 140,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 562,600

**Impact Fee Project Cost TOTAL: \$ 4,079,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Intermodal	<b>This project consists of the construction of the northern lanes to complete the four-lane divided commercial connector with a wide median</b>	<b>AA-2</b>
Limits:	FM 156 to Old Blue Mound		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (W) (1/2)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	3,710		
Service Area(s):	AA		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
107	Unclassified Street Excavation	7,832	cy	\$ 17.00	\$ 133,148
207	6" Lime Stabilization (with Lime @ 32#/sy)	10,718	sy	\$ 4.00	\$ 42,871
307	11" Concrete Pavement	9,893	sy	\$ 55.00	\$ 544,133
407	6" Curb and Gutter	7,420	lf	\$ 7.00	\$ 51,940
507	4" Topsoil	12,779	sy	\$ 5.00	\$ 63,894
607	11' Concrete Sidewalk	37,100	sf	\$ 6.00	\$ 222,600
705	Auxiliary Lanes and Median Openings Allotment	1,490	sf	\$ 59.00	\$ 87,888
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,146,474</b>

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 34,394
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 34,394
✓ Pavement Markings/Markers		3%	\$ 34,394
✓ Roadway Drainage	Standard Internal System	30%	\$ 343,942
✓ Illumination		2%	\$ 28,509
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 68,788
✓ Sewer	Minor Adjustments	4%	\$ 45,859
✓ Establish Turf / Erosion Control		2%	\$ 22,929
✓ Basic Landscaping		4%	\$ 45,859
Other:		\$0	\$ -
<b>Allowance Subtotal:</b>			<b>\$ 659,070</b>
<b>Paving and Allowance Subtotal:</b>			<b>\$ 1,805,544</b>
<b>Construction Contingency:</b>			<b>15% \$ 270,832</b>
<b>Construction Cost TOTAL:</b>			<b>\$ 2,077,000</b>

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 2,077,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 415,400
<b>Mobilization</b>		5%	\$ 103,850
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 207,700
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,804,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Keller Haslet (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	<b>AA-3, B-5</b>
Limits:	965' E of John Day to 3,485' E of John Day		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,520		
Service Area(s):	AA, B		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,280	cy	\$ 17.00	\$ 123,760
230	6" Lime Stabilization (with Lime @ 32#/sy)	14,000	sy	\$ 4.00	\$ 56,000
330	11" Concrete Pavement	12,880	sy	\$ 55.00	\$ 708,400
430	6" Curb and Gutter	10,080	lf	\$ 7.00	\$ 70,560
530	4" Topsoil	12,320	sy	\$ 5.00	\$ 61,600
630	10' Concrete Sidewalk	50,400	sf	\$ 6.00	\$ 302,400
728	Auxiliary Lanes and Median Openings Allotment	1,012	sf	\$ 59.00	\$ 59,697
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,382,417</b>

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 41,473
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 41,473
✓ Pavement Markings/Markers		3%	\$ 41,473
✓ Roadway Drainage	Standard Internal System	30%	\$ 414,725
✓ Illumination		2%	\$ 34,376
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 82,945
✓ Sewer	Minor Adjustments	4%	\$ 55,297
✓ Establish Turf / Erosion Control		2%	\$ 27,648
✓ Basic Landscaping		4%	\$ 55,297
✓ Other:	Railroad Crossing	\$500,000	\$ 500,000
<b>Allowance Subtotal:</b>			<b>\$ 1,294,706</b>
<b>Paving and Allowance Subtotal:</b>			<b>\$ 2,677,123</b>
<b>Construction Contingency:</b>			<b>15% \$ 326,568</b>
<b>Construction Cost TOTAL:</b>			<b>\$ 3,004,000</b>

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 3,004,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 600,800
<b>Mobilization</b>		5%	\$ 150,200
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 300,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 4,055,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	AA-4
Name:	Keller Haslet (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>		
Limits:	2,825' W of FM 156 to Keller Haslet			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	465			
Service Area(s):	AA			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	1,524	cy	\$ 17.00	\$ 25,911
233	6" Lime Stabilization (with Lime @ 32#/sy)	2,997	sy	\$ 4.00	\$ 11,987
333	11" Concrete Pavement	2,893	sy	\$ 55.00	\$ 159,133
433	6" Curb and Gutter	930	lf	\$ 7.00	\$ 6,510
533	4" Topsoil	1,757	sy	\$ 5.00	\$ 8,783
633	10' Concrete Sidewalk	9,300	sf	\$ 6.00	\$ 55,800
731	Auxiliary Lanes and Median Openings Allotment	79	sf	\$ 59.00	\$ 4,676

**Paving Construction Cost Subtotal: \$ 272,801**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 8,184
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 8,184
✓ Pavement Markings/Markers		3%	\$ 8,184
✓ Roadway Drainage	Standard Internal System	30%	\$ 81,840
✓ Illumination		2%	\$ 6,784
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 16,368
✓ Sewer	Minor Adjustments	4%	\$ 10,912
✓ Establish Turf / Erosion Control		2%	\$ 5,456
✓ Basic Landscaping		4%	\$ 10,912
Other:		\$0	\$ -

**Allowance Subtotal: \$ 156,824**

**Paving and Allowance Subtotal: \$ 429,625**

**Construction Contingency: 15% \$ 64,444**

**Construction Cost TOTAL: \$ 495,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 495,000
Engineering/Survey/Testing:		20%	\$ 99,000
Mobilization		5%	\$ 24,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 49,500

**Impact Fee Project Cost TOTAL: \$ 668,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Keller Haslet (3)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	<b>AA-5</b>
Limits:	Keller Haslet to 125' W of FM 156		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	2,235		
Service Area(s):	AA		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	7,326	cy	\$ 17.00	\$ 124,539
233	6" Lime Stabilization (with Lime @ 32#/sy)	14,403	sy	\$ 4.00	\$ 57,613
333	11" Concrete Pavement	13,907	sy	\$ 55.00	\$ 764,867
433	6" Curb and Gutter	4,470	lf	\$ 7.00	\$ 31,290
533	4" Topsoil	8,443	sy	\$ 5.00	\$ 42,217
633	10' Concrete Sidewalk	44,700	sf	\$ 6.00	\$ 268,200
731	Auxiliary Lanes and Median Openings Allotment	381	sf	\$ 59.00	\$ 22,477
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,311,203</b>

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW	None Anticipated	3%	\$ 39,336
Traffic Control		0%	\$ -
✓ Pavement Markings/Markers	Standard Internal System	3%	\$ 39,336
✓ Roadway Drainage		30%	\$ 393,361
✓ Illumination		2%	\$ 32,605
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 78,672
✓ Sewer	Minor Adjustments	4%	\$ 52,448
✓ Establish Turf / Erosion Control		2%	\$ 26,224
✓ Basic Landscaping		4%	\$ 52,448
Other:		\$0	\$ -
<b>Allowance Subtotal:</b>			<b>\$ 714,431</b>
<b>Paving and Allowance Subtotal:</b>			<b>\$ 2,025,634</b>
<b>Construction Contingency:</b>			<b>15% \$ 303,845</b>
<b>Construction Cost TOTAL:</b>			<b>\$ 2,330,000</b>

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 2,330,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 466,000
<b>Mobilization</b>		5%	\$ 116,500
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 466,000
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,379,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**Appendix A - Service Area B**

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area B

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
B-1	NCO-L2-T0-TWLT-P0-BOP (110)	Eagle (1)	330' E of Graben to Sendera Ranch	New	50%	\$ 6,689,000	\$3,344,500
B-2	NCO-L2-T0-TWLT-P0-BOP (110)	Eagle (2)	Sendera Ranch to 4,510' E of Sendera Ranch	New	50%	\$ 6,816,000	\$3,408,000
B-3	NCO-L2-T0-TWLT-P0-BOP (110)	Rancho Canyon (1)	Sendera Ranch to Skytop	New	100%	\$ 12,007,000	\$12,007,000
B-4	NCO-L2-T0-NTMS-P0-BOP (110)	Rancho Canyon (2)	Cabo to John Day	New	100%	\$ 1,436,000	\$1,436,000
AA-3, B-5	NCO-L2-T0-NTMS-P0-BOP (110)	Keller Haslet (1)	965' E of John Day to 3,485' E of John Day	Widening	50%	\$ 4,055,000	\$2,027,500
B-6	CCO-L2-T0-TWLT-P0-BOP (110)	Avondale Haslet (1)	US 287 NBFR to 1,715' E of US 287 NBFR	Previous	100%	\$ 2,004,784	\$2,004,784
B-7	CCO (E) (4U)	Avondale Haslet (2)	1,715' E of US 287 NBFR to Bates Aston	Previous	100%	\$ 3,007,176	\$3,007,176
B-8	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (3)	455' W of Willow Ranch to Willow Springs	Widening	100%	\$ 2,488,000	\$2,488,000
B-9	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (4)	Willow Springs to Sendera Ranch	Widening	100%	\$ 4,232,000	\$4,232,000
B-10	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (5)	Sendera Ranch to 1,015' E of Sendera Ranch	Widening	100%	\$ 1,362,000	\$1,362,000
B-11	NCO-L2-T0-NTMS-P0-BOP (110)	Avondale Haslet (6)	1,015' E of Sendera Ranch to 1,360' W of John Day	Widening	100%	\$ 4,815,000	\$4,815,000
B-12	NCO-L2-T0-NTMS-P0-BOP (110)	Blue Mound (1)	Blue Mound (Existing) to Willow Springs	New	100%	\$ 9,667,000	\$9,667,000
B-13	CCO-L2-T0-NTMS-P0-BOP (110)	Blue Mound (2)	Willow Springs to US 287 SBFM	Widening	100%	\$ 2,572,000	\$2,572,000
B-14	CCO-L2-T0-NTMS-P0-BOP (110)	Blue Mound (3)	US 287 NBFM to Wagley Robertson	Widening	100%	\$ 4,710,000	\$4,710,000
B-15	NCO-L2-T0-TWLT-P0-BOP (110)	Willow Springs (1)	Avondale Haslet to 200' S of Velda Kay	Widening	100%	\$ 2,310,000	\$2,310,000
B-16	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (2)	200' S of Velda Kay to 1235' S of Singleton	Widening	100%	\$ 3,588,000	\$3,588,000
B-17	CCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (3)	1235' S of Singleton to US 287 NBFR	Widening	100%	\$ 4,761,000	\$4,761,000
B-18	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (4)	US 287 NBFR to Blue Mound	Widening	100%	\$ 4,605,000	\$4,605,000
B-19	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (5)	Blue Mound to 510' S of Twisting Star	Widening	100%	\$ 6,627,000	\$6,627,000
B-20	NCO-L2-T0-TWLT-P0-BOP (110)	Sendera Ranch (1)	Eagle to Rancho Canyon	New	100%	\$ 7,315,000	\$7,315,000
B-21	NCO-L2-T0-TWLT-P0-BOP (110)	Sendera Ranch (2)	Rancho Canyon to Suncatcher	New	50%	\$ 4,209,000	\$2,104,500
B-22	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Sendera Ranch (3)	Suncatcher to 275' S of Suncatcher	Widening	100%	\$ 193,000	\$193,000
B-23	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Sendera Ranch (4)	Diamondback to 450' N of Cactus Spine	Widening	100%	\$ 2,159,000	\$2,159,000
B-24	NCO-L2-T0-NTMS-P0-BOP (110)	Sendera Ranch (5)	450' N of Cactus Spine to Avondale Haslet	New	100%	\$ 3,421,000	\$3,421,000
B-25	NCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (1)	Avondale Haslet to 5,220' S of Avondale Haslet	New	100%	\$ 7,378,000	\$7,378,000
B-26	NCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (2)	5,220' S of Avondale Haslet to Blue Mound	New	100%	\$ 4,643,000	\$4,643,000
B-27, C-21	CCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (3)	245' N of US 287 to 725' S of US 287	New	50%	\$ 1,407,000	\$703,500
B-28	NCO-L2-T0-TWLT-P0-BOP (110)	John Day (1)	985' S of Eagle to 1,360' S of Eagle	New	100%	\$ 567,000	\$567,000
B-29	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	John Day (2)	1,360' S of Eagle to 4,515' S of Eagle	Widening	100%	\$ 2,207,000	\$2,207,000
B-30	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	John Day (3)	4,515' S of Eagle to Keller Haslet	Widening	100%	\$ 2,946,000	\$2,946,000
B-31	CCO-L2-T0-NTMS-P0-BOP (110)	John Day (4)	Keller Haslet to Rancho Canyon	New	100%	\$ 3,012,000	\$3,012,000
B-32	NCO-L2-T0-TWLT-P0-BOP (110)	John Day (5)	Rancho Canyon to 990' S of Rancho Canyon	New	100%	\$ 1,496,000	\$1,496,000
B-33	NCO-L2-T0-TWLT-P0-BOP (110)	John Day (6)	990' S of Rancho Canyon to Avondale-Haslet Rd	New	50%	\$ 8,804,000	\$4,402,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Roundabout	Avondale Haslet	Sendera Ranch	Rebuild	100%	\$ 1,500,000	\$1,500,000
	Roundabout	Avondale Haslet	Willow Springs	Rebuild	100%	\$ 1,500,000	\$1,500,000
	Roundabout	Blue Mound	Wagley Roberson	Rebuild	75%	\$ 1,500,000	\$1,125,000
	Roundabout	Blue Mound	Willow Springs	Rebuild	100%	\$ 1,500,000	\$1,500,000
	Roundabout	Diamondback	Rancho Canyon	Retrofit	100%	\$ 2,500,000	\$2,500,000
	Roundabout	Eagle	Sendera Ranch	New	50%	\$ 1,000,000	\$500,000
	Roundabout	Keller Haslet	John Day	Rebuild	100%	\$ 1,500,000	\$1,500,000
	Roundabout	Rancho Canyon	John Day	New	100%	\$ 1,000,000	\$1,000,000
	Roundabout	Rancho Canyon	Sendera Ranch	New	75%	\$ 1,000,000	\$750,000
	Roundabout	Sendera Ranch	Diamondback	Rebuild	100%	\$ 1,500,000	\$1,500,000
<b>NOTES:</b> 1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project. 2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.							

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-1
Name:	Eagle (1)	<b>This project consists of the construction of a new five-lane undivided Neighborhood Connector.</b>		
Limits:	330' E of Graben to Sendera Ranch			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	4,425			
Service Area(s):	B, ETJ			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	14,504	cy	\$ 17.00	\$ 246,571
233	6" Lime Stabilization (with Lime @ 32#/sy)	28,517	sy	\$ 4.00	\$ 114,067
333	11" Concrete Pavement	27,533	sy	\$ 55.00	\$ 1,514,333
433	6" Curb and Gutter	8,850	lf	\$ 7.00	\$ 61,950
533	4" Topsoil	16,717	sy	\$ 5.00	\$ 83,583
633	10' Concrete Sidewalk	88,500	sf	\$ 6.00	\$ 531,000
731	Auxiliary Lanes and Median Openings Allotment	754	sf	\$ 59.00	\$ 44,501
Paving Construction Cost Subtotal:					\$ 2,596,006
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	77,880
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	77,880
✓	Roadway Drainage	Standard Internal System	30%	\$	778,802
✓	Illumination		2%	\$	64,554
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	155,760
✓	Sewer	Minor Adjustments	4%	\$	103,840
✓	Establish Turf / Erosion Control		2%	\$	51,920
✓	Basic Landscaping		4%	\$	103,840
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,414,477
Paving and Allowance Subtotal:					\$ 4,010,482
Construction Contingency: 15%					\$ 601,572
Construction Cost TOTAL:					\$ 4,613,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,613,000
Engineering/Survey/Testing:		20%	\$ 922,600
Mobilization		5%	\$ 230,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 922,600
Impact Fee Project Cost TOTAL:			\$ 6,689,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-2
Name:	Eagle (2)	<b>This project consists of the construction of a new five-lane undivided Neighborhood Connector.</b>		
Limits:	Sendera Ranch to 4,510' E of Sendera			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	4,510			
Service Area(s):	B, ETJ			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	14,783	cy	\$ 17.00	\$ 251,307
233	6" Lime Stabilization (with Lime @ 32#/sy)	29,064	sy	\$ 4.00	\$ 116,258
333	11" Concrete Pavement	28,062	sy	\$ 55.00	\$ 1,543,422
433	6" Curb and Gutter	9,020	lf	\$ 7.00	\$ 63,140
533	4" Topsoil	17,038	sy	\$ 5.00	\$ 85,189
633	10' Concrete Sidewalk	90,200	sf	\$ 6.00	\$ 541,200
731	Auxiliary Lanes and Median Openings Allotment	769	sf	\$ 59.00	\$ 45,356
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,645,872</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	79,376
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	79,376
✓	Roadway Drainage		30%	\$	793,762
✓	Illumination		2%	\$	65,794
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	158,752
✓	Sewer	Minor Adjustments	4%	\$	105,835
✓	Establish Turf / Erosion Control		2%	\$	52,917
✓	Basic Landscaping		4%	\$	105,835
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 1,441,648</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 4,087,520</b>
<b>Construction Contingency:</b>					<b>15% \$ 613,128</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 4,701,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 4,701,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 940,200
<b>Mobilization</b>		5%	\$ 235,050
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 940,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 6,816,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-3
Name:	Rancho Canyon (1)	<b>This project consists of the construction of a new five-lane undivided Neighborhood Connector.</b>		
Limits:	Sendera Ranch to Skytop			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	7,945			
Service Area(s):	B, ETJ			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	26,042	cy	\$ 17.00	\$ 442,713
233	6" Lime Stabilization (with Lime @ 32#/sy)	51,201	sy	\$ 4.00	\$ 204,804
333	11" Concrete Pavement	49,436	sy	\$ 55.00	\$ 2,718,956
433	6" Curb and Gutter	15,890	lf	\$ 7.00	\$ 111,230
533	4" Topsoil	30,014	sy	\$ 5.00	\$ 150,072
633	10' Concrete Sidewalk	158,900	sf	\$ 6.00	\$ 953,400
731	Auxiliary Lanes and Median Openings Allotment	1,354	sf	\$ 59.00	\$ 79,901
Paving Construction Cost Subtotal:					\$ 4,661,077
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	139,832
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	139,832
✓	Roadway Drainage	Standard Internal System	30%	\$	1,398,323
✓	Illumination		2%	\$	115,905
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	279,665
✓	Sewer	Minor Adjustments	4%	\$	186,443
✓	Establish Turf / Erosion Control		2%	\$	93,222
✓	Basic Landscaping		4%	\$	186,443
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,539,665
Paving and Allowance Subtotal:					\$ 7,200,742
Construction Contingency: 15%					\$ 1,080,111
Construction Cost TOTAL:					\$ 8,281,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,281,000
Engineering/Survey/Testing:		20%	\$ 1,656,200
Mobilization		5%	\$ 414,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,656,200
Impact Fee Project Cost TOTAL:			\$ 12,007,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-4
Name:	Rancho Canyon (2)	<b>This project consists of the construction of a new four-lane divided Neighborhood Connector.</b>		
Limits:	Cabo to John Day			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,015			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	2,932	cy	\$ 17.00	\$ 49,848
230	6" Lime Stabilization (with Lime @ 32#/sy)	5,639	sy	\$ 4.00	\$ 22,556
330	11" Concrete Pavement	5,188	sy	\$ 55.00	\$ 285,328
430	6" Curb and Gutter	4,060	lf	\$ 7.00	\$ 28,420
530	4" Topsoil	4,962	sy	\$ 5.00	\$ 24,811
630	10' Concrete Sidewalk	20,300	sf	\$ 6.00	\$ 121,800
728	Auxiliary Lanes and Median Openings Allotment	408	sf	\$ 59.00	\$ 24,045
Paving Construction Cost Subtotal:					\$ 556,807
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,704
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	16,704
✓	Roadway Drainage	Standard Internal System	30%	\$	167,042
✓	Illumination		2%	\$	13,846
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	33,408
✓	Sewer	Minor Adjustments	4%	\$	22,272
✓	Establish Turf / Erosion Control		2%	\$	11,136
✓	Basic Landscaping		4%	\$	22,272
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 303,386
Paving and Allowance Subtotal:					\$ 860,193
Construction Contingency: 15%					\$ 129,029
Construction Cost TOTAL:					\$ 990,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 990,000
Engineering/Survey/Testing:		20%	\$ 198,000
Mobilization		5%	\$ 49,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 198,000
Impact Fee Project Cost TOTAL:			\$ 1,436,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. AA-3, B-5
Name:	Keller Haslet (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector</b>	
Limits:	965' E of John Day to 3,485' E of John Day		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,520		
Service Area(s):	B, AA		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,280	cy	\$ 17.00	\$ 123,760
230	6" Lime Stabilization (with Lime @ 32#/sy)	14,000	sy	\$ 4.00	\$ 56,000
330	11" Concrete Pavement	12,880	sy	\$ 55.00	\$ 708,400
430	6" Curb and Gutter	10,080	lf	\$ 7.00	\$ 70,560
530	4" Topsoil	12,320	sy	\$ 5.00	\$ 61,600
630	10' Concrete Sidewalk	50,400	sf	\$ 6.00	\$ 302,400
728	Auxiliary Lanes and Median Openings Allotment	1,012	sf	\$ 59.00	\$ 59,697
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,382,417</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	41,473
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	41,473
✓	Pavement Markings/Markers		3%	\$	41,473
✓	Roadway Drainage	Standard Internal System	30%	\$	414,725
✓	Illumination		2%	\$	34,376
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	82,945
✓	Sewer	Minor Adjustments	4%	\$	55,297
✓	Establish Turf / Erosion Control		2%	\$	27,648
✓	Basic Landscaping		4%	\$	55,297
✓	Other:	Railroad crossing	\$500,000	\$	500,000
<b>Allowance Subtotal:</b>					<b>\$ 1,294,706</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 2,677,123</b>
<b>Construction Contingency:</b>					<b>15% \$ 326,568</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 3,004,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 3,004,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 600,800
<b>Mobilization</b>		5%	\$ 150,200
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 300,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 4,055,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*  
 updated: 9/29/2017

Project Information:		Description:	Project No.	B-6
Name:	Avondale Haslet (1)			<b>This project consisted of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector. The City contributed \$5,011,959 overall to this project. This segment accounts for 40% (\$2,004,784) of the overall project.</b>
Limits:	US 287 NBFR to 1,715' E of US 287 NBFR			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	1,715			
Service Area(s):	B			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 1,507,168
Engineering/Survey/Testing:			\$ 405,873
ROW/Easement Acquisition:			\$ 91,742
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,004,784</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*  
 updated: 9/29/2017

Project Information:		Description:	Project No.	B-7
Name:	Avondale Haslet (2)	This project consisted of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector. The City contributed \$5,011,959 overall to this project. This segment accounts for 60% (\$3,007,176) of the overall project.		
Limits:	1,715' E of US 287 NBFR to Bates Aston			
Impact Fee Class:	CCO (E) (4U)			
Ultimate Class:	Established Commercial Connector			
Length (lf):	2,505			
Service Area(s):	B			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 2,260,753
Engineering/Survey/Testing:			\$ 608,810
ROW/Easement Acquisition:			\$ 137,613
Impact Fee Project Cost TOTAL:			\$ 3,007,176

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-8
Name:	Avondale Haslet (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector</b>		
Limits:	455' W of Willow Ranch to Willow Springs			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,855			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	5,359	cy	\$ 17.00	\$ 91,101
230	6" Lime Stabilization (with Lime @ 32#/sy)	10,306	sy	\$ 4.00	\$ 41,222
330	11" Concrete Pavement	9,481	sy	\$ 55.00	\$ 521,461
430	6" Curb and Gutter	7,420	lf	\$ 7.00	\$ 51,940
530	4" Topsoil	9,069	sy	\$ 5.00	\$ 45,344
630	10' Concrete Sidewalk	37,100	sf	\$ 6.00	\$ 222,600
728	Auxiliary Lanes and Median Openings Allotment	745	sf	\$ 59.00	\$ 43,944
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,017,613</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	30,528
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	30,528
✓	Pavement Markings/Markers		3%	\$	30,528
✓	Roadway Drainage	Standard Internal System	30%	\$	305,284
✓	Illumination		2%	\$	25,305
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	61,057
✓	Sewer	Minor Adjustments	4%	\$	40,705
✓	Establish Turf / Erosion Control		2%	\$	20,352
✓	Basic Landscaping		4%	\$	40,705
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 584,992</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 1,602,604</b>
<b>Construction Contingency:</b>					<b>15% \$ 240,391</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 1,843,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 1,843,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 368,600
<b>Mobilization</b>		5%	\$ 92,150
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 184,300
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,488,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-9
Name:	Avondale Haslet (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector</b>		
Limits:	Willow Springs to Sendera Ranch			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,155			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	9,114	cy	\$ 17.00	\$ 154,946
230	6" Lime Stabilization (with Lime @ 32#/sy)	17,528	sy	\$ 4.00	\$ 70,111
330	11" Concrete Pavement	16,126	sy	\$ 55.00	\$ 886,906
430	6" Curb and Gutter	12,620	lf	\$ 7.00	\$ 88,340
530	4" Topsoil	15,424	sy	\$ 5.00	\$ 77,122
630	10' Concrete Sidewalk	63,100	sf	\$ 6.00	\$ 378,600
728	Auxiliary Lanes and Median Openings Allotment	1,267	sf	\$ 59.00	\$ 74,740
Paving Construction Cost Subtotal:					\$ 1,730,764
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	51,923
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	51,923
✓	Pavement Markings/Markers		3%	\$	51,923
✓	Roadway Drainage	Standard Internal System	30%	\$	519,229
✓	Illumination		2%	\$	43,038
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	103,846
✓	Sewer	Minor Adjustments	4%	\$	69,231
✓	Establish Turf / Erosion Control		2%	\$	34,615
✓	Basic Landscaping		4%	\$	69,231
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 994,959
Paving and Allowance Subtotal:					\$ 2,725,723
Construction Contingency:					15% \$ 408,858
Construction Cost TOTAL:					\$ 3,135,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,135,000
Engineering/Survey/Testing:		20%	\$ 627,000
Mobilization		5%	\$ 156,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 313,500
Impact Fee Project Cost TOTAL:			\$ 4,232,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-10
Name:	Avondale Haslet (5)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector</b>	
Limits:	Sendera Ranch to 1,015' E of Sendera Ranch		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,015		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	2,932	cy	\$ 17.00	\$ 49,848
230	6" Lime Stabilization (with Lime @ 32#/sy)	5,639	sy	\$ 4.00	\$ 22,556
330	11" Concrete Pavement	5,188	sy	\$ 55.00	\$ 285,328
430	6" Curb and Gutter	4,060	lf	\$ 7.00	\$ 28,420
530	4" Topsoil	4,962	sy	\$ 5.00	\$ 24,811
630	10' Concrete Sidewalk	20,300	sf	\$ 6.00	\$ 121,800
728	Auxiliary Lanes and Median Openings Allotment	408	sf	\$ 59.00	\$ 24,045
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 556,807</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,704
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	16,704
✓	Pavement Markings/Markers		3%	\$	16,704
✓	Roadway Drainage	Standard Internal System	30%	\$	167,042
✓	Illumination		2%	\$	13,846
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	33,408
✓	Sewer	Minor Adjustments	4%	\$	22,272
✓	Establish Turf / Erosion Control		2%	\$	11,136
✓	Basic Landscaping		4%	\$	22,272
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 320,090</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 876,897</b>
<b>Construction Contingency:</b>					<b>15% \$ 131,535</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 1,009,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,009,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 201,800
<b>Mobilization</b>		5%	\$ 50,450
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 100,900
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,362,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-11
Name:	Avondale Haslet (6)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector</b>		
Limits:	1,015' E of Sendera Ranch to 1,360' W of John Day			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,590			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,371	cy	\$ 17.00	\$ 176,309
230	6" Lime Stabilization (with Lime @ 32#/sy)	19,944	sy	\$ 4.00	\$ 79,778
330	11" Concrete Pavement	18,349	sy	\$ 55.00	\$ 1,009,189
430	6" Curb and Gutter	14,360	lf	\$ 7.00	\$ 100,520
530	4" Topsoil	17,551	sy	\$ 5.00	\$ 87,756
630	10' Concrete Sidewalk	71,800	sf	\$ 6.00	\$ 430,800
728	Auxiliary Lanes and Median Openings Allotment	1,441	sf	\$ 59.00	\$ 85,045
Paving Construction Cost Subtotal:					\$ 1,969,396
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	59,082
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	59,082
✓	Pavement Markings/Markers		3%	\$	59,082
✓	Roadway Drainage	Standard Internal System	30%	\$	590,819
✓	Illumination		2%	\$	48,972
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	118,164
✓	Sewer	Minor Adjustments	4%	\$	78,776
✓	Establish Turf / Erosion Control		2%	\$	39,388
✓	Basic Landscaping		4%	\$	78,776
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,132,140
Paving and Allowance Subtotal:					\$ 3,101,536
Construction Contingency:					15% \$ 465,230
Construction Cost TOTAL:					\$ 3,567,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,567,000
Engineering/Survey/Testing:		20%	\$ 713,400
Mobilization		5%	\$ 178,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 356,700
Impact Fee Project Cost TOTAL:			\$ 4,815,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-12
Name:	Blue Mound (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector</b>		
Limits:	Blue Mound (Existing) to Willow Springs			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	6,840			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	19,760	cy	\$ 17.00	\$ 335,920
230	6" Lime Stabilization (with Lime @ 32#/sy)	38,000	sy	\$ 4.00	\$ 152,000
330	11" Concrete Pavement	34,960	sy	\$ 55.00	\$ 1,922,800
430	6" Curb and Gutter	27,360	lf	\$ 7.00	\$ 191,520
530	4" Topsoil	33,440	sy	\$ 5.00	\$ 167,200
630	10' Concrete Sidewalk	136,800	sf	\$ 6.00	\$ 820,800
728	Auxiliary Lanes and Median Openings Allotment	2,746	sf	\$ 59.00	\$ 162,035
Paving Construction Cost Subtotal:					\$ 3,752,275
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	112,568
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	112,568
✓	Roadway Drainage		30%	\$	1,125,683
✓	Illumination		2%	\$	93,307
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	225,137
✓	Sewer	Minor Adjustments	4%	\$	150,091
✓	Establish Turf / Erosion Control		2%	\$	75,046
✓	Basic Landscaping		4%	\$	150,091
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,044,490
Paving and Allowance Subtotal:					\$ 5,796,765
Construction Contingency:					15% \$ 869,515
Construction Cost TOTAL:					\$ 6,667,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,667,000
Engineering/Survey/Testing:		20%	\$ 1,333,400
Mobilization		5%	\$ 333,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,333,400
Impact Fee Project Cost TOTAL:			\$ 9,667,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-13
Name:	Blue Mound (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector</b>	
Limits:	Willow Springs to US 287 SBFM		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	1,870		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	5,610	cy	\$ 17.00	\$ 95,370
223	6" Lime Stabilization (with Lime @ 32#/sy)	10,804	sy	\$ 4.00	\$ 43,218
323	11" Concrete Pavement	9,973	sy	\$ 55.00	\$ 548,533
423	6" Curb and Gutter	7,480	lf	\$ 7.00	\$ 52,360
523	4" Topsoil	8,727	sy	\$ 5.00	\$ 43,633
623	10' Concrete Sidewalk	37,400	sf	\$ 6.00	\$ 224,400
721	Auxiliary Lanes and Median Openings Allotment	751	sf	\$ 59.00	\$ 44,299
Paving Construction Cost Subtotal:					\$ 1,051,814
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	31,554
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	31,554
✓	Pavement Markings/Markers		3%	\$	31,554
✓	Roadway Drainage	Standard Internal System	30%	\$	315,544
✓	Illumination		2%	\$	26,155
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	63,109
✓	Sewer	Minor Adjustments	4%	\$	42,073
✓	Establish Turf / Erosion Control		2%	\$	21,036
✓	Basic Landscaping		4%	\$	42,073
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 604,653
Paving and Allowance Subtotal:					\$ 1,656,466
Construction Contingency: 15%					\$ 248,470
Construction Cost TOTAL:					\$ 1,905,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,905,000
Engineering/Survey/Testing:		20%	\$ 381,000
Mobilization		5%	\$ 95,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 190,500
Impact Fee Project Cost TOTAL:			\$ 2,572,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-14
Name:	Blue Mound (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector</b>	
Limits:	US 287 NBFM to Wagley Robertson		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	3,425		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	10,275	cy	\$ 17.00	\$ 174,675
223	6" Lime Stabilization (with Lime @ 32#/sy)	19,789	sy	\$ 4.00	\$ 79,156
323	11" Concrete Pavement	18,267	sy	\$ 55.00	\$ 1,004,667
423	6" Curb and Gutter	13,700	lf	\$ 7.00	\$ 95,900
523	4" Topsoil	15,983	sy	\$ 5.00	\$ 79,917
623	10' Concrete Sidewalk	68,500	sf	\$ 6.00	\$ 411,000
721	Auxiliary Lanes and Median Openings Allotment	1,375	sf	\$ 59.00	\$ 81,136
Paving Construction Cost Subtotal:					\$ 1,926,450
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	57,794
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	57,794
✓	Pavement Markings/Markers		3%	\$	57,794
✓	Roadway Drainage	Standard Internal System	30%	\$	577,935
✓	Illumination		2%	\$	47,904
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	115,587
✓	Sewer	Minor Adjustments	4%	\$	77,058
✓	Establish Turf / Erosion Control		2%	\$	38,529
✓	Basic Landscaping		4%	\$	77,058
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,107,452
Paving and Allowance Subtotal:					\$ 3,033,902
Construction Contingency: 15%					\$ 455,085
Construction Cost TOTAL:					\$ 3,489,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,489,000
Engineering/Survey/Testing:		20%	\$ 697,800
Mobilization		5%	\$ 174,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 348,900
Impact Fee Project Cost TOTAL:			\$ 4,710,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-15
Name:	Willow Springs (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector</b>	
Limits:	Avondale Haslet to 200' S of Velda Kay		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	1,610		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	5,277	cy	\$ 17.00	\$ 89,713
233	6" Lime Stabilization (with Lime @ 32#/sy)	10,376	sy	\$ 4.00	\$ 41,502
333	11" Concrete Pavement	10,018	sy	\$ 55.00	\$ 550,978
433	6" Curb and Gutter	3,220	lf	\$ 7.00	\$ 22,540
533	4" Topsoil	6,082	sy	\$ 5.00	\$ 30,411
633	10' Concrete Sidewalk	32,200	sf	\$ 6.00	\$ 193,200
731	Auxiliary Lanes and Median Openings Allotment	274	sf	\$ 59.00	\$ 16,191
Paving Construction Cost Subtotal:					\$ 944,535
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	28,336
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	28,336
✓	Pavement Markings/Markers		3%	\$	28,336
✓	Roadway Drainage	Standard Internal System	30%	\$	283,361
✓	Illumination		2%	\$	23,487
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	56,672
✓	Sewer	Minor Adjustments	4%	\$	37,781
✓	Establish Turf / Erosion Control		2%	\$	18,891
✓	Basic Landscaping		4%	\$	37,781
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 542,982
Paving and Allowance Subtotal:					\$ 1,487,517
Construction Contingency:					15% \$ 223,128
Construction Cost TOTAL:					\$ 1,711,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,711,000
Engineering/Survey/Testing:		20%	\$ 342,200
Mobilization		5%	\$ 85,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 171,100
Impact Fee Project Cost TOTAL:			\$ 2,310,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-16
Name:	Willow Springs (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector</b>		
Limits:	200' S of Velda Kay to 1235' S of Singleton			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,675			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,728	cy	\$ 17.00	\$ 131,372
230	6" Lime Stabilization (with Lime @ 32#/sy)	14,861	sy	\$ 4.00	\$ 59,444
330	11" Concrete Pavement	13,672	sy	\$ 55.00	\$ 751,972
430	6" Curb and Gutter	10,700	lf	\$ 7.00	\$ 74,900
530	4" Topsoil	13,078	sy	\$ 5.00	\$ 65,389
630	10' Concrete Sidewalk	53,500	sf	\$ 6.00	\$ 321,000
728	Auxiliary Lanes and Median Openings Allotment	1,074	sf	\$ 59.00	\$ 63,369
Paving Construction Cost Subtotal:					\$ 1,467,447
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	44,023
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	44,023
✓	Pavement Markings/Markers		3%	\$	44,023
✓	Roadway Drainage	Standard Internal System	30%	\$	440,234
✓	Illumination		2%	\$	36,491
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	88,047
✓	Sewer	Minor Adjustments	4%	\$	58,698
✓	Establish Turf / Erosion Control		2%	\$	29,349
✓	Basic Landscaping		4%	\$	58,698
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 843,586
Paving and Allowance Subtotal:					\$ 2,311,033
Construction Contingency:					15% \$ 346,655
Construction Cost TOTAL:					\$ 2,658,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,658,000
Engineering/Survey/Testing:		20%	\$ 531,600
Mobilization		5%	\$ 132,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 265,800
Impact Fee Project Cost TOTAL:			\$ 3,588,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-17
Name:	Willow Springs (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector</b>	
Limits:	1235' S of Singleton to US 287 NBFR		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	2,480		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	7,440	cy	\$ 17.00	\$ 126,480
223	6" Lime Stabilization (with Lime @ 32#/sy)	14,329	sy	\$ 4.00	\$ 57,316
323	11" Concrete Pavement	13,227	sy	\$ 55.00	\$ 727,467
423	6" Curb and Gutter	9,920	lf	\$ 7.00	\$ 69,440
523	4" Topsoil	11,573	sy	\$ 5.00	\$ 57,867
623	10' Concrete Sidewalk	49,600	sf	\$ 6.00	\$ 297,600
721	Auxiliary Lanes and Median Openings Allotment	996	sf	\$ 59.00	\$ 58,750
Paving Construction Cost Subtotal:					\$ 1,394,919
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	41,848
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	41,848
✓	Pavement Markings/Markers		3%	\$	41,848
✓	Roadway Drainage	Standard Internal System	30%	\$	418,476
✓	Illumination		2%	\$	34,687
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	83,695
✓	Sewer	Minor Adjustments	4%	\$	55,797
✓	Establish Turf / Erosion Control		2%	\$	27,898
✓	Basic Landscaping		4%	\$	55,797
✓	Other:	US 287 Crossing Allotment	\$1,000,000	\$	1,000,000
Allowance Subtotal:					\$ 1,801,892
Paving and Allowance Subtotal:					\$ 3,196,811
Construction Contingency: 15%					\$ 329,522
Construction Cost TOTAL:					\$ 3,527,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,527,000
Engineering/Survey/Testing:		20%	\$ 705,400
Mobilization		5%	\$ 176,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 352,700
Impact Fee Project Cost TOTAL:			\$ 4,761,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-18
Name:	Willow Springs (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector</b>	
Limits:	US 287 NBFR to Blue Mound		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,420		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	4,102	cy	\$ 17.00	\$ 69,738
230	6" Lime Stabilization (with Lime @ 32#/sy)	7,889	sy	\$ 4.00	\$ 31,556
330	11" Concrete Pavement	7,258	sy	\$ 55.00	\$ 399,178
430	6" Curb and Gutter	5,680	lf	\$ 7.00	\$ 39,760
530	4" Topsoil	6,942	sy	\$ 5.00	\$ 34,711
630	10' Concrete Sidewalk	28,400	sf	\$ 6.00	\$ 170,400
728	Auxiliary Lanes and Median Openings Allotment	570	sf	\$ 59.00	\$ 33,639
Paving Construction Cost Subtotal:					\$ 778,981
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	23,369
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	23,369
✓	Pavement Markings/Markers		3%	\$	23,369
✓	Roadway Drainage	Standard Internal System	30%	\$	233,694
✓	Illumination		2%	\$	19,371
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	46,739
✓	Sewer	Minor Adjustments	4%	\$	31,159
✓	Establish Turf / Erosion Control		2%	\$	15,580
✓	Basic Landscaping		4%	\$	31,159
✓	Other:	US 287 Crossing Allotment	\$2,000,000	\$	2,000,000
Allowance Subtotal:					\$ 2,447,810
Paving and Allowance Subtotal:					\$ 3,226,791
Construction Contingency:					15% \$ 184,019
Construction Cost TOTAL:					\$ 3,411,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,411,000
Engineering/Survey/Testing:		20%	\$ 682,200
Mobilization		5%	\$ 170,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 341,100
Impact Fee Project Cost TOTAL:			\$ 4,605,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-19
Name:	Willow Springs (5)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector</b>	
Limits:	Blue Mound to 510' S of Twisting Star		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	4,940		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	14,271	cy	\$ 17.00	\$ 242,609
230	6" Lime Stabilization (with Lime @ 32#/sy)	27,444	sy	\$ 4.00	\$ 109,778
330	11" Concrete Pavement	25,249	sy	\$ 55.00	\$ 1,388,689
430	6" Curb and Gutter	19,760	lf	\$ 7.00	\$ 138,320
530	4" Topsoil	24,151	sy	\$ 5.00	\$ 120,756
630	10' Concrete Sidewalk	98,800	sf	\$ 6.00	\$ 592,800
728	Auxiliary Lanes and Median Openings Allotment	1,983	sf	\$ 59.00	\$ 117,026
Paving Construction Cost Subtotal:					\$ 2,709,977
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	81,299
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	81,299
✓	Pavement Markings/Markers		3%	\$	81,299
✓	Roadway Drainage	Standard Internal System	30%	\$	812,993
✓	Illumination		2%	\$	67,388
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	162,599
✓	Sewer	Minor Adjustments	4%	\$	108,399
✓	Establish Turf / Erosion Control		2%	\$	54,200
✓	Basic Landscaping		4%	\$	108,399
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,557,875
Paving and Allowance Subtotal:					\$ 4,267,852
Construction Contingency: 15%					\$ 640,178
Construction Cost TOTAL:					\$ 4,909,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,909,000
Engineering/Survey/Testing:		20%	\$ 981,800
Mobilization		5%	\$ 245,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 490,900
Impact Fee Project Cost TOTAL:			\$ 6,627,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-20
Name:	Sendera Ranch (1)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector</b>		
Limits:	Eagle to Rancho Canyon			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	4,840			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	15,864	cy	\$ 17.00	\$ 269,696
233	6" Lime Stabilization (with Lime @ 32#/sy)	31,191	sy	\$ 4.00	\$ 124,764
333	11" Concrete Pavement	30,116	sy	\$ 55.00	\$ 1,656,356
433	6" Curb and Gutter	9,680	lf	\$ 7.00	\$ 67,760
533	4" Topsoil	18,284	sy	\$ 5.00	\$ 91,422
633	10' Concrete Sidewalk	96,800	sf	\$ 6.00	\$ 580,800
731	Auxiliary Lanes and Median Openings Allotment	825	sf	\$ 59.00	\$ 48,675
Paving Construction Cost Subtotal:					\$ 2,839,473
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	85,184
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	85,184
✓	Roadway Drainage		30%	\$	851,842
✓	Illumination		2%	\$	70,608
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	170,368
✓	Sewer	Minor Adjustments	4%	\$	113,579
✓	Establish Turf / Erosion Control		2%	\$	56,789
✓	Basic Landscaping		4%	\$	113,579
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,547,134
Paving and Allowance Subtotal:					\$ 4,386,607
Construction Contingency:					15% \$ 657,991
Construction Cost TOTAL:					\$ 5,045,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,045,000
Engineering/Survey/Testing:		20%	\$ 1,009,000
Mobilization		5%	\$ 252,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,009,000
Impact Fee Project Cost TOTAL:			\$ 7,315,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-21
Name:	Sendera Ranch (2)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector</b>		
Limits:	Rancho Canyon to Suncatcher			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	2,785			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	9,129	cy	\$ 17.00	\$ 155,186
233	6" Lime Stabilization (with Lime @ 32#/sy)	17,948	sy	\$ 4.00	\$ 71,791
333	11" Concrete Pavement	17,329	sy	\$ 55.00	\$ 953,089
433	6" Curb and Gutter	5,570	lf	\$ 7.00	\$ 38,990
533	4" Topsoil	10,521	sy	\$ 5.00	\$ 52,606
633	10' Concrete Sidewalk	55,700	sf	\$ 6.00	\$ 334,200
731	Auxiliary Lanes and Median Openings Allotment	475	sf	\$ 59.00	\$ 28,008
Paving Construction Cost Subtotal:					\$ 1,633,870
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	49,016
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	49,016
✓	Roadway Drainage	Standard Internal System	30%	\$	490,161
✓	Illumination		2%	\$	40,629
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	98,032
✓	Sewer	Minor Adjustments	4%	\$	65,355
✓	Establish Turf / Erosion Control		2%	\$	32,677
✓	Basic Landscaping		4%	\$	65,355
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 890,241
Paving and Allowance Subtotal:					\$ 2,524,112
Construction Contingency: 15%					\$ 378,617
Construction Cost TOTAL:					\$ 2,903,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,903,000
Engineering/Survey/Testing:		20%	\$ 580,600
Mobilization		5%	\$ 145,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 580,600
Impact Fee Project Cost TOTAL:			\$ 4,209,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-22
Name:	Sendera Ranch (3)	<b>This project consists of the construction of the southbound lanes to complete the four-lane divided neighborhood connector</b>		
Limits:	Suncatcher to 275' S of Suncatcher			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	275			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	397	cy	\$ 17.00	\$ 6,753
231	6" Lime Stabilization (with Lime @ 32#/sy)	764	sy	\$ 4.00	\$ 3,056
331	11" Concrete Pavement	703	sy	\$ 55.00	\$ 38,653
431	6" Curb and Gutter	550	lf	\$ 7.00	\$ 3,850
531	4" Topsoil	672	sy	\$ 5.00	\$ 3,361
631	10' Concrete Sidewalk	2,750	sf	\$ 6.00	\$ 16,500
729	Auxiliary Lanes and Median Openings Allotment	110	sf	\$ 59.00	\$ 6,515
Paving Construction Cost Subtotal:					\$ 78,687
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	2,361
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	2,361
✓	Pavement Markings/Markers		3%	\$	2,361
✓	Roadway Drainage	Standard Internal System	30%	\$	23,606
✓	Illumination		2%	\$	1,957
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	4,721
✓	Sewer	Minor Adjustments	4%	\$	3,147
✓	Establish Turf / Erosion Control		2%	\$	1,574
✓	Basic Landscaping		4%	\$	3,147
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 45,234
Paving and Allowance Subtotal:					\$ 123,921
Construction Contingency: 15%					\$ 18,588
Construction Cost TOTAL:					\$ 143,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 143,000
Engineering/Survey/Testing:		20%	\$ 28,600
Mobilization		5%	\$ 7,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 14,300
Impact Fee Project Cost TOTAL:			\$ 193,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-23
Name:	Sendera Ranch (4)	<b>This project consists of the construction of the northbound lanes to complete the four-lane divided neighborhood connector</b>		
Limits:	Diamondback to 450' N of Cactus Spine			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,085			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	4,456	cy	\$ 17.00	\$ 75,754
231	6" Lime Stabilization (with Lime @ 32#/sy)	8,569	sy	\$ 4.00	\$ 34,278
331	11" Concrete Pavement	7,884	sy	\$ 55.00	\$ 433,614
431	6" Curb and Gutter	6,170	lf	\$ 7.00	\$ 43,190
531	4" Topsoil	7,541	sy	\$ 5.00	\$ 37,706
631	10' Concrete Sidewalk	30,850	sf	\$ 6.00	\$ 185,100
729	Auxiliary Lanes and Median Openings Allotment	1,239	sf	\$ 59.00	\$ 73,082
Paving Construction Cost Subtotal:					\$ 882,723
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	26,482
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	26,482
✓	Pavement Markings/Markers		3%	\$	26,482
✓	Roadway Drainage	Standard Internal System	30%	\$	264,817
✓	Illumination		2%	\$	21,950
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	52,963
✓	Sewer	Minor Adjustments	4%	\$	35,309
✓	Establish Turf / Erosion Control		2%	\$	17,654
✓	Basic Landscaping		4%	\$	35,309
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 507,448
Paving and Allowance Subtotal:					\$ 1,390,171
Construction Contingency:					15% \$ 208,526
Construction Cost TOTAL:					\$ 1,599,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,599,000
Engineering/Survey/Testing:		20%	\$ 319,800
Mobilization		5%	\$ 79,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 159,900
Impact Fee Project Cost TOTAL:			\$ 2,159,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-24
Name:	Sendera Ranch (5)	<b>This project consists of the construction of a new four-lane divided neighborhood connector</b>		
Limits:	450' N of Cactus Spine to Avondale Haslet			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,420			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	6,991	cy	\$ 17.00	\$ 118,849
230	6" Lime Stabilization (with Lime @ 32#/sy)	13,444	sy	\$ 4.00	\$ 53,778
330	11" Concrete Pavement	12,369	sy	\$ 55.00	\$ 680,289
430	6" Curb and Gutter	9,680	lf	\$ 7.00	\$ 67,760
530	4" Topsoil	11,831	sy	\$ 5.00	\$ 59,156
630	10' Concrete Sidewalk	48,400	sf	\$ 6.00	\$ 290,400
728	Auxiliary Lanes and Median Openings Allotment	972	sf	\$ 59.00	\$ 57,328
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,327,559</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	39,827
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	39,827
✓	Roadway Drainage	Standard Internal System	30%	\$	398,268
✓	Illumination		2%	\$	33,012
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	79,654
✓	Sewer	Minor Adjustments	4%	\$	53,102
✓	Establish Turf / Erosion Control		2%	\$	26,551
✓	Basic Landscaping		4%	\$	53,102
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 723,343</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 2,050,902</b>
<b>Construction Contingency:</b>					<b>15% \$ 307,635</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 2,359,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 2,359,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 471,800
<b>Mobilization</b>		5%	\$ 117,950
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 471,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,421,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-25
Name:	Wagley Robertson (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector</b>		
Limits:	Avondale Haslet to 5,220' S of Avondale Haslet			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	5,220			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	15,080	cy	\$ 17.00	\$ 256,360
230	6" Lime Stabilization (with Lime @ 32#/sy)	29,000	sy	\$ 4.00	\$ 116,000
330	11" Concrete Pavement	26,680	sy	\$ 55.00	\$ 1,467,400
430	6" Curb and Gutter	20,880	lf	\$ 7.00	\$ 146,160
530	4" Topsoil	25,520	sy	\$ 5.00	\$ 127,600
630	10' Concrete Sidewalk	104,400	sf	\$ 6.00	\$ 626,400
728	Auxiliary Lanes and Median Openings Allotment	2,096	sf	\$ 59.00	\$ 123,659
Paving Construction Cost Subtotal:					\$ 2,863,579
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	85,907
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	85,907
✓	Roadway Drainage	Standard Internal System	30%	\$	859,074
✓	Illumination		2%	\$	71,208
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	171,815
✓	Sewer	Minor Adjustments	4%	\$	114,543
✓	Establish Turf / Erosion Control		2%	\$	57,272
✓	Basic Landscaping		4%	\$	114,543
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,560,269
Paving and Allowance Subtotal:					\$ 4,423,847
Construction Contingency: 15%					\$ 663,577
Construction Cost TOTAL:					\$ 5,088,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,088,000
Engineering/Survey/Testing:		20%	\$ 1,017,600
Mobilization		5%	\$ 254,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,017,600
Impact Fee Project Cost TOTAL:			\$ 7,378,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-26
Name:	Wagley Robertson (2)	<b>This project consists of the construction of a new four-lane divided neighborhood connector</b>		
Limits:	5,220' S of Avondale Haslet to Blue Mound			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,285			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	9,490	cy	\$ 17.00	\$ 161,330
230	6" Lime Stabilization (with Lime @ 32#/sy)	18,250	sy	\$ 4.00	\$ 73,000
330	11" Concrete Pavement	16,790	sy	\$ 55.00	\$ 923,450
430	6" Curb and Gutter	13,140	lf	\$ 7.00	\$ 91,980
530	4" Topsoil	16,060	sy	\$ 5.00	\$ 80,300
630	10' Concrete Sidewalk	65,700	sf	\$ 6.00	\$ 394,200
728	Auxiliary Lanes and Median Openings Allotment	1,319	sf	\$ 59.00	\$ 77,820
Paving Construction Cost Subtotal:					\$ 1,802,080
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	54,062
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	54,062
✓	Roadway Drainage	Standard Internal System	30%	\$	540,624
✓	Illumination		2%	\$	44,812
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	108,125
✓	Sewer	Minor Adjustments	4%	\$	72,083
✓	Establish Turf / Erosion Control		2%	\$	36,042
✓	Basic Landscaping		4%	\$	72,083
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 981,893
Paving and Allowance Subtotal:					\$ 2,783,973
Construction Contingency:					15% \$ 417,596
Construction Cost TOTAL:					\$ 3,202,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,202,000
Engineering/Survey/Testing:		20%	\$ 640,400
Mobilization		5%	\$ 160,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 640,400
Impact Fee Project Cost TOTAL:			\$ 4,643,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-27, C-21
Name:	Wagley Robertson (3)	<b>This project consists of the construction of a new four-lane divided commercial connector</b>	
Limits:	245' N of US 287 to 725' S of US 287		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	970		
Service Area(s):	B, C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	2,910	cy	\$ 17.00	\$ 49,470
223	6" Lime Stabilization (with Lime @ 32#/sy)	5,604	sy	\$ 4.00	\$ 22,418
323	11" Concrete Pavement	5,173	sy	\$ 55.00	\$ 284,533
423	6" Curb and Gutter	3,880	lf	\$ 7.00	\$ 27,160
523	4" Topsoil	4,527	sy	\$ 5.00	\$ 22,633
623	10' Concrete Sidewalk	19,400	sf	\$ 6.00	\$ 116,400
721	Auxiliary Lanes and Median Openings Allotment	389	sf	\$ 59.00	\$ 22,979
Paving Construction Cost Subtotal:					\$ 545,593
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,368
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	16,368
✓	Roadway Drainage	Standard Internal System	30%	\$	163,678
✓	Illumination		2%	\$	13,567
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	32,736
✓	Sewer	Minor Adjustments	4%	\$	21,824
✓	Establish Turf / Erosion Control		2%	\$	10,912
✓	Basic Landscaping		4%	\$	21,824
	Other:				
Allowance Subtotal:					\$ 297,276
Paving and Allowance Subtotal:					\$ 842,869
Construction Contingency: 15%					\$ 126,430
Construction Cost TOTAL:					\$ 970,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 970,000
Engineering/Survey/Testing:		20%	\$ 194,000
Mobilization		5%	\$ 48,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 194,000
Impact Fee Project Cost TOTAL:			\$ 1,407,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-28
Name:	John Day (1)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector</b>	
Limits:	985' S of Eagle to 1,360' S of Eagle		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	375		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	1,229	cy	\$ 17.00	\$ 20,896
233	6" Lime Stabilization (with Lime @ 32#/sy)	2,417	sy	\$ 4.00	\$ 9,667
333	11" Concrete Pavement	2,333	sy	\$ 55.00	\$ 128,333
433	6" Curb and Gutter	750	lf	\$ 7.00	\$ 5,250
533	4" Topsoil	1,417	sy	\$ 5.00	\$ 7,083
633	10' Concrete Sidewalk	7,500	sf	\$ 6.00	\$ 45,000
731	Auxiliary Lanes and Median Openings Allotment	64	sf	\$ 59.00	\$ 3,771
Paving Construction Cost Subtotal:					\$ 220,000
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	6,600
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	6,600
✓	Roadway Drainage	Standard Internal System	30%	\$	66,000
✓	Illumination		2%	\$	5,471
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	13,200
✓	Sewer	Minor Adjustments	4%	\$	8,800
✓	Establish Turf / Erosion Control		2%	\$	4,400
✓	Basic Landscaping		4%	\$	8,800
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 119,871
Paving and Allowance Subtotal:					\$ 339,871
Construction Contingency: 15%					\$ 50,981
Construction Cost TOTAL:					\$ 391,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 391,000
Engineering/Survey/Testing:		20%	\$ 78,200
Mobilization		5%	\$ 19,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 78,200
Impact Fee Project Cost TOTAL:			\$ 567,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-29
Name:	John Day (2)	<b>This project consists of the construction of the southbound lanes to complete the four-lane divided neighborhood connector</b>	
Limits:	1,360' S of Eagle to 4,515' S of Eagle		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	3,155		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	4,557	cy	\$ 17.00	\$ 77,473
231	6" Lime Stabilization (with Lime @ 32#/sy)	8,764	sy	\$ 4.00	\$ 35,056
331	11" Concrete Pavement	8,063	sy	\$ 55.00	\$ 443,453
431	6" Curb and Gutter	6,310	lf	\$ 7.00	\$ 44,170
531	4" Topsoil	7,712	sy	\$ 5.00	\$ 38,561
631	10' Concrete Sidewalk	31,550	sf	\$ 6.00	\$ 189,300
729	Auxiliary Lanes and Median Openings Allotment	1,267	sf	\$ 59.00	\$ 74,740
Paving Construction Cost Subtotal:					\$ 902,752
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	27,083
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	27,083
✓	Pavement Markings/Markers		3%	\$	27,083
✓	Roadway Drainage	Standard Internal System	30%	\$	270,826
✓	Illumination		2%	\$	22,448
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	54,165
✓	Sewer	Minor Adjustments	4%	\$	36,110
✓	Establish Turf / Erosion Control		2%	\$	18,055
✓	Basic Landscaping		4%	\$	36,110
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 518,962
Paving and Allowance Subtotal:					\$ 1,421,714
Construction Contingency: 15%					\$ 213,257
Construction Cost TOTAL:					\$ 1,635,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,635,000
Engineering/Survey/Testing:		20%	\$ 327,000
Mobilization		5%	\$ 81,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 163,500
Impact Fee Project Cost TOTAL:			\$ 2,207,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-30
Name:	John Day (3)	<b>This project consists of the construction of the southbound lanes to complete the four-lane divided commercial connector</b>	
Limits:	4,515' S of Eagle to Keller Haslet		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	4,110		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	6,165	cy	\$ 17.00	\$ 104,805
224	6" Lime Stabilization (with Lime @ 32#/sy)	11,873	sy	\$ 4.00	\$ 47,493
324	11" Concrete Pavement	10,960	sy	\$ 55.00	\$ 602,800
424	6" Curb and Gutter	8,220	lf	\$ 7.00	\$ 57,540
524	4" Topsoil	9,590	sy	\$ 5.00	\$ 47,950
624	10' Concrete Sidewalk	41,100	sf	\$ 6.00	\$ 246,600
722	Auxiliary Lanes and Median Openings Allotment	1,650	sf	\$ 59.00	\$ 97,363
Paving Construction Cost Subtotal:					\$ 1,204,552
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	36,137
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	36,137
✓	Pavement Markings/Markers		3%	\$	36,137
✓	Roadway Drainage	Standard Internal System	30%	\$	361,366
✓	Illumination		2%	\$	29,953
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	72,273
✓	Sewer	Minor Adjustments	4%	\$	48,182
✓	Establish Turf / Erosion Control		2%	\$	24,091
✓	Basic Landscaping		4%	\$	48,182
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 692,457
Paving and Allowance Subtotal:					\$ 1,897,008
Construction Contingency: 15%					\$ 284,551
Construction Cost TOTAL:					\$ 2,182,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,182,000
Engineering/Survey/Testing:		20%	\$ 436,400
Mobilization		5%	\$ 109,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 218,200
Impact Fee Project Cost TOTAL:			\$ 2,946,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. B-31
Name:	John Day (4)	<b>This project consists of the construction of a new four-lane divided commercial connector</b>	
Limits:	Keller Haslet to Rancho Canyon		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	1,765		
Service Area(s):	B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	5,295	cy	\$ 17.00	\$ 90,015
223	6" Lime Stabilization (with Lime @ 32#/sy)	10,198	sy	\$ 4.00	\$ 40,791
323	11" Concrete Pavement	9,413	sy	\$ 55.00	\$ 517,733
423	6" Curb and Gutter	7,060	lf	\$ 7.00	\$ 49,420
523	4" Topsoil	8,237	sy	\$ 5.00	\$ 41,183
623	10' Concrete Sidewalk	35,300	sf	\$ 6.00	\$ 211,800
721	Auxiliary Lanes and Median Openings Allotment	709	sf	\$ 59.00	\$ 41,812
Paving Construction Cost Subtotal:					\$ 992,755
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	29,783
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	29,783
✓	Roadway Drainage	Standard Internal System	30%	\$	297,826
✓	Illumination		2%	\$	24,686
✓	Special Drainage Structures	Minor Stream Crossing(s)	\$ 272,000	\$	272,000
✓	Water	Minor Adjustments	6%	\$	59,565
✓	Sewer	Minor Adjustments	4%	\$	39,710
✓	Establish Turf / Erosion Control		2%	\$	19,855
✓	Basic Landscaping		4%	\$	39,710
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 812,919
Paving and Allowance Subtotal:					\$ 1,805,673
Construction Contingency: 15%					\$ 270,851
Construction Cost TOTAL:					\$ 2,077,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,077,000
Engineering/Survey/Testing:		20%	\$ 415,400
Mobilization		5%	\$ 103,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 415,400
Impact Fee Project Cost TOTAL:			\$ 3,012,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-32
Name:	John Day (5)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector</b>		
Limits:	Rancho Canyon to 990' S of Rancho Canyon			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	990			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	3,245	cy	\$ 17.00	\$ 55,165
233	6" Lime Stabilization (with Lime @ 32#/sy)	6,380	sy	\$ 4.00	\$ 25,520
333	11" Concrete Pavement	6,160	sy	\$ 55.00	\$ 338,800
433	6" Curb and Gutter	1,980	lf	\$ 7.00	\$ 13,860
533	4" Topsoil	3,740	sy	\$ 5.00	\$ 18,700
633	10' Concrete Sidewalk	19,800	sf	\$ 6.00	\$ 118,800
731	Auxiliary Lanes and Median Openings Allotment	169	sf	\$ 59.00	\$ 9,956
Paving Construction Cost Subtotal:					\$ 580,801
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	17,424
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	17,424
✓	Roadway Drainage	Standard Internal System	30%	\$	174,240
✓	Illumination		2%	\$	14,443
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	34,848
✓	Sewer	Minor Adjustments	4%	\$	23,232
✓	Establish Turf / Erosion Control		2%	\$	11,616
✓	Basic Landscaping		4%	\$	23,232
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 316,459
Paving and Allowance Subtotal:					\$ 897,260
Construction Contingency: 15%					\$ 134,589
Construction Cost TOTAL:					\$ 1,032,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,032,000
Engineering/Survey/Testing:		20%	\$ 206,400
Mobilization		5%	\$ 51,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 206,400
Impact Fee Project Cost TOTAL:			\$ 1,496,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	B-33
Name:	John Day (6)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector</b>		
Limits:	990' S of Rancho Canyon to Avondale-Haslet Rd			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	5,825			
Service Area(s):	B			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	19,093	cy	\$ 17.00	\$ 324,582
233	6" Lime Stabilization (with Lime @ 32#/sy)	37,539	sy	\$ 4.00	\$ 150,156
333	11" Concrete Pavement	36,244	sy	\$ 55.00	\$ 1,993,444
433	6" Curb and Gutter	11,650	lf	\$ 7.00	\$ 81,550
533	4" Topsoil	22,006	sy	\$ 5.00	\$ 110,028
633	10' Concrete Sidewalk	116,500	sf	\$ 6.00	\$ 699,000
731	Auxiliary Lanes and Median Openings Allotment	993	sf	\$ 59.00	\$ 58,581
Paving Construction Cost Subtotal:					\$ 3,417,341
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	102,520
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	102,520
✓	Roadway Drainage		30%	\$	1,025,202
✓	Illumination		2%	\$	84,978
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	205,040
✓	Sewer	Minor Adjustments	4%	\$	136,694
✓	Establish Turf / Erosion Control		2%	\$	68,347
✓	Basic Landscaping		4%	\$	136,694
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,861,995
Paving and Allowance Subtotal:					\$ 5,279,336
Construction Contingency: 15%					\$ 791,900
Construction Cost TOTAL:					\$ 6,072,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,072,000
Engineering/Survey/Testing:		20%	\$ 1,214,400
Mobilization		5%	\$ 303,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,214,400
Impact Fee Project Cost TOTAL:			\$ 8,804,000

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**Appendix A – Service Area C**

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area C

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
C-1	CCO-L2-T0-TWLT-P0-BOP (110)	Keller Hicks (1)	Harmon to Harmon (Future)	Widening	50%	\$ 1,719,000	\$ 859,500
C-2	NCO-L2-T0-NTMS-P0-BOP (110)	Keller Hicks (2)	Harmon (Future) to IH-35 W SBFR	Widening	50%	\$ 2,354,000	\$ 1,177,000
C-3	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (1)	Wagley Robertson to 625' E of Wagley Robertson	Widening	50%	\$ 888,000	\$ 444,000
C-4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (2)	625' E Wagley Robertson to US 287 SBFR	Widening	100%	\$ 8,790,000	\$ 8,790,000
C-5	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (3)	US 287 SBFR to FM 156	Widening	100%	\$ 4,026,000	\$ 4,026,000
C-6	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Bonds Ranch (4)	FM 156 to Harmon	Widening	100%	\$ 7,515,000	\$ 7,515,000
C-7	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Golden Triangle (1)	470' E of Misty Redwood to Golden Heights	Widening	100%	\$ 1,181,000	\$ 1,181,000
C-8	CCO-L2-T0-NTMS-P0-BOP (110)	Golden Triangle (2)	Golden Heights to Harmon (Future)	New	100%	\$ 863,000	\$ 863,000
C-9	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Golden Triangle (3)	Harmon (Future) to 615' E of Harmon	New	100%	\$ 943,000	\$ 943,000
C-10	CCO-L3-T0-NTMS-P0-BOP (130)	Golden Triangle (4)	615' E of Harmon to IH-35W	Widening	100%	\$ 2,531,000	\$ 2,531,000
C-11	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (6)	Wagley Robertson to Wagley Robertson (Future)	New	100%	\$ 677,000	\$ 677,000
C-12	NCO-L3-T0-NTMS-P0-BLS (130) (W)	Heritage Trace (7)	Wagley Robertson (Future) to Copper Crossing	New	100%	\$ 10,508,000	\$ 10,508,000
C-13	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Heritage Trace (8)	Copper Crossing to FM 156	Median	100%	\$ 658,000	\$ 658,000
C-14	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Heritage Trace (9)	Blue Mound to US 287 SBFR	New	100%	\$ 6,290,000	\$ 6,290,000
C-15	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Heritage Trace (10)	US 287 to 1,145' E of US 287	New	100%	\$ 4,612,000	\$ 4,612,000
C-16	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Heritage Trace (11)	135' W of Creosote to Harmon	Median	100%	\$ 724,000	\$ 724,000
C-17	NCO-L2-T0-NTMS-P0-BLS (110)	N. Tarrant (1)	US 287 SBFR to US 287 NBFR	New	100%	\$ 5,482,000	\$ 5,482,000
C-18	CCO-L3-T0-NTMS-P0-BLB (130)	N. Tarrant (2)	US 287 NBFR to 335' E of US 287 NBFR	Widening	100%	\$ 640,000	\$ 640,000
C-19	NCO-L2-T0-NTMS-P0-BOP (110)	Bailey Boswell (4)	FM 156 to Horseman	New	100%	\$ 7,450,000	\$ 7,450,000
C-20, F-1	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Basswood	Candler to IH-35 W	Median	50%	\$ 571,000	\$ 285,500
C-21, B-27	CCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (3)	245' N of US 287 to 725' S of US 287	New	50%	\$ 5,757,000	\$ 2,878,500
C-22	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Wagley Robertson (4)	565' N of Hawks Landing to Hawks Landing	Widening	100%	\$ 405,000	\$ 405,000
C-23	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Wagley Robertson (5)	Hawks Landing to 310' N of Bonds Ranch	Widening	100%	\$ 1,501,000	\$ 1,501,000
C-24, E-18	NCO-L2-T0-TWLT-P0-BOP (110)	Wagley Robertson (6)	690' N of Quicksilver to 1795' S of Bent Oak	Widening	50%	\$ 4,748,000	\$ 2,374,000
C-25	NCO-L2-T0-NTMS-P0-BOP (110)	Wagley Robertson (7)	735' N of Heritage Trace to Heritage Trace	New	100%	\$ 1,040,000	\$ 1,040,000
C-26	NCO-L1-T0-TWLT-P0-BOP (80)	Wagley Robertson (8)	Heritage Trace to 1465' S of Heritage Trace	New	100%	\$ 1,575,000	\$ 1,575,000
C-27, E-19	NCO-L1-T0-TWLT-P0-BOP (80)	Wagley Robertson (9)	145' N of Mystic River to 715' S of Mystic River	Widening	50%	\$ 878,000	\$ 439,000
C-28	CCO-L1-T0-TWLT-P0-BOP (80)	Harmon (1)	Keller Hicks to 2,475' S of Keller Hicks	New	100%	\$ 2,749,000	\$ 2,749,000
C-29	CCO-L1-T0-TWLT-P0-BOP (80)	Harmon (2)	2,475' S of Keller Hicks to 640' N of Golden Triangle	Widening	50%	\$ 902,000	\$ 451,000
C-30	CCO-L1-T0-TWLT-P0-BOP (80)	Harmon (3)	640' N of Golden Triangle to Golden Triangle	New	100%	\$ 712,000	\$ 712,000
C-31	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Harmon (4)	Bonds Ranch to Heritage Trace	Widening	100%	\$ 2,407,000	\$ 2,407,000
C-32	NCO-L2-T0-TWLT-P0-BOP (110)	Harmon (5)	Heritage Trace to US 287 NBFR	Widening	100%	\$ 7,846,000	\$ 7,846,000
C-33	NCO-L2-T0-TWLT-P0-BOP (110)	Harmon (6)	US 287 NBFR to US 287 SBFR	New	100%	\$ 5,500,000	\$ 5,500,000
C-34	NCO-L2-T0-NTMS-P0-BLS (110)	Harmon (7)	US 287 SBFR to Harmon	New	100%	\$ 1,140,000	\$ 1,140,000
C-35	NCO-L2-T0-NTMS-P0-BLS (110)	Harmon (8)	330' W of Bailey Boswell to Bailey Boswell	New	100%	\$ 477,000	\$ 477,000
C-36	NCO-L2-T0-TWLT-P0-BOP (110)	Bailey Boswell (5)	Harmon to Horseman	New	100%	\$ 6,499,000	\$ 6,499,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Bailey Boswell	FM 156	Rebuild	50%	\$ 600,000	\$ 300,000
	Turn Lane Improvements	Bonds Ranch	FM 156	Rebuild	75%	\$ 600,000	\$ 450,000
	Roundabout	Bonds Ranch	Harmon	Rebuild	75%	\$ 1,500,000	\$ 1,125,000
	Roundabout	Golden Triangle	Harmon	New	100%	\$ 1,000,000	\$ 1,000,000
	Turn Lane Improvements	Harmon	FM 156	Retrofit	100%	\$ 180,000	\$ 180,000
	Roundabout	Harmon	Bailey Boswell	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Harmon	US 287 NBFR	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Harmon	US 287 SBFR	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Heritage Trace	Harmon	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Heritage Trace	Wagley Robertson	New	100%	\$ 1,000,000	\$ 1,000,000
	Turn Lane Improvements	Heritage Trace	FM 156	Rebuild	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	N. Tarrant	US 287 SBFR	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	N. Tarrant	US 287 NBFR	New	100%	\$ 1,000,000	\$ 1,000,000
<b>NOTES:</b> 1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project. 2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.							



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-1
Name:	Keller Hicks (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector.</b>		
Limits:	Harmon to Harmon (Future)			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	1,170			
Service Area(s):	C, ETJ			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	3,965	cy	\$ 17.00	\$ 67,405
225	6" Lime Stabilization (with Lime @ 32#/sy)	7,800	sy	\$ 4.00	\$ 31,200
325	11" Concrete Pavement	7,540	sy	\$ 55.00	\$ 414,700
425	6" Curb and Gutter	2,340	lf	\$ 7.00	\$ 16,380
525	4" Topsoil	4,160	sy	\$ 5.00	\$ 20,800
625	10' Concrete Sidewalk	23,400	sf	\$ 6.00	\$ 140,400
723	Auxiliary Lanes and Median Openings Allotment	199	sf	\$ 59.00	\$ 11,766
Paving Construction Cost Subtotal:					\$ 702,651
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	21,080
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	21,080
✓	Pavement Markings/Markers		3%	\$	21,080
✓	Roadway Drainage	Standard Internal System	30%	\$	210,795
✓	Illumination		2%	\$	17,473
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	42,159
✓	Sewer	Minor Adjustments	4%	\$	28,106
✓	Establish Turf / Erosion Control		2%	\$	14,053
✓	Basic Landscaping		4%	\$	28,106
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 403,931
Paving and Allowance Subtotal:					\$ 1,106,582
Construction Contingency:					15% \$ 165,987
Construction Cost TOTAL:					\$ 1,273,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,273,000
Engineering/Survey/Testing:		20%	\$ 254,600
Mobilization		5%	\$ 63,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 127,300
Impact Fee Project Cost TOTAL:			\$ 1,719,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-2
Name:	Keller Hicks (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:	Harmon (Future) to IH-35 W SBFR		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,755		
Service Area(s):	C, ETJ		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	5,070	cy	\$ 17.00	\$ 86,190
230	6" Lime Stabilization (with Lime @ 32#/sy)	9,750	sy	\$ 4.00	\$ 39,000
330	11" Concrete Pavement	8,970	sy	\$ 55.00	\$ 493,350
430	6" Curb and Gutter	7,020	lf	\$ 7.00	\$ 49,140
530	4" Topsoil	8,580	sy	\$ 5.00	\$ 42,900
630	10' Concrete Sidewalk	35,100	sf	\$ 6.00	\$ 210,600
728	Auxiliary Lanes and Median Openings Allotment	705	sf	\$ 59.00	\$ 41,575
Paving Construction Cost Subtotal:					\$ 962,755
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	28,883
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	28,883
✓	Pavement Markings/Markers		3%	\$	28,883
✓	Roadway Drainage	Standard Internal System	30%	\$	288,826
✓	Illumination		2%	\$	23,941
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	57,765
✓	Sewer	Minor Adjustments	4%	\$	38,510
✓	Establish Turf / Erosion Control		2%	\$	19,255
✓	Basic Landscaping		4%	\$	38,510
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 553,456
Paving and Allowance Subtotal:					\$ 1,516,211
Construction Contingency: 15%					\$ 227,432
Construction Cost TOTAL:					\$ 1,744,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,744,000
Engineering/Survey/Testing:		20%	\$ 348,800
Mobilization		5%	\$ 87,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 174,400
Impact Fee Project Cost TOTAL:			\$ 2,354,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-3
Name:	Bonds Ranch (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector with a wide median.</b>		
Limits:	Wagley Robertson to 625' E of Wagley Robertson			
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	625			
Service Area(s):	C, ETJ			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	2,569	cy	\$ 17.00	\$ 43,681
213	6" Lime Stabilization (with Lime @ 32#/sy)	3,472	sy	\$ 4.00	\$ 13,889
313	11" Concrete Pavement	3,194	sy	\$ 55.00	\$ 175,694
413	6" Curb and Gutter	2,500	lf	\$ 7.00	\$ 17,500
513	4" Topsoil	4,444	sy	\$ 5.00	\$ 22,222
613	10' Concrete Sidewalk	12,500	sf	\$ 6.00	\$ 75,000
711	Auxiliary Lanes and Median Openings Allotment	251	sf	\$ 59.00	\$ 14,806
Paving Construction Cost Subtotal:					\$ 362,792
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	10,884
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	10,884
✓	Pavement Markings/Markers		3%	\$	10,884
✓	Roadway Drainage	Standard Internal System	30%	\$	108,838
✓	Illumination		2%	\$	9,021
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	21,768
✓	Sewer	Minor Adjustments	4%	\$	14,512
✓	Establish Turf / Erosion Control		2%	\$	7,256
✓	Basic Landscaping		4%	\$	14,512
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 208,557
Paving and Allowance Subtotal:					\$ 571,349
Construction Contingency: 15%					\$ 85,702
Construction Cost TOTAL:					\$ 658,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 658,000
Engineering/Survey/Testing:		20%	\$ 131,600
Mobilization		5%	\$ 32,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 65,800
Impact Fee Project Cost TOTAL:			\$ 888,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-4
Name:	Bonds Ranch (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector with a wide median.</b>		
Limits:	625' E Wagley Robertson to US 287 SBFR			
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	4,585			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	18,849	cy	\$ 17.00	\$ 320,441
213	6" Lime Stabilization (with Lime @ 32#/sy)	25,472	sy	\$ 4.00	\$ 101,889
313	11" Concrete Pavement	23,434	sy	\$ 55.00	\$ 1,288,894
413	6" Curb and Gutter	18,340	lf	\$ 7.00	\$ 128,380
513	4" Topsoil	32,604	sy	\$ 5.00	\$ 163,022
613	10' Concrete Sidewalk	91,700	sf	\$ 6.00	\$ 550,200
711	Auxiliary Lanes and Median Openings Allotment	1,841	sf	\$ 59.00	\$ 108,616
Paving Construction Cost Subtotal:					\$ 2,661,442
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	79,843
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	79,843
✓	Pavement Markings/Markers		3%	\$	79,843
✓	Roadway Drainage	Standard Internal System	30%	\$	798,433
✓	Illumination		2%	\$	66,181
✓	Special Drainage Structures	Drainage Crossing(s)	\$ 1,035,000	\$	1,035,000
✓	Water	Minor Adjustments	6%	\$	159,687
✓	Sewer	Minor Adjustments	4%	\$	106,458
✓	Establish Turf / Erosion Control		2%	\$	53,229
✓	Basic Landscaping		4%	\$	106,458
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
Allowance Subtotal:					\$ 3,064,974
Paving and Allowance Subtotal:					\$ 5,726,416
Construction Contingency:					15% \$ 783,962
Construction Cost TOTAL:					\$ 6,511,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,511,000
Engineering/Survey/Testing:		20%	\$ 1,302,200
Mobilization		5%	\$ 325,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 651,100
Impact Fee Project Cost TOTAL:			\$ 8,790,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-5
Name:	Bonds Ranch (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector with a wide median.</b>	
Limits:	US 287 SBFR to FM 156		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (W)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	2,770		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	11,696	cy	\$ 17.00	\$ 198,824
206	6" Lime Stabilization (with Lime @ 32#/sy)	16,004	sy	\$ 4.00	\$ 64,018
306	11" Concrete Pavement	14,773	sy	\$ 55.00	\$ 812,533
406	6" Curb and Gutter	11,080	lf	\$ 7.00	\$ 77,560
506	4" Topsoil	19,082	sy	\$ 5.00	\$ 95,411
606	10' Concrete Sidewalk	55,400	sf	\$ 6.00	\$ 332,400
704	Auxiliary Lanes and Median Openings Allotment	1,112	sf	\$ 59.00	\$ 65,620
Paving Construction Cost Subtotal:					\$ 1,646,366
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	49,391
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	49,391
✓	Pavement Markings/Markers		3%	\$	49,391
✓	Roadway Drainage	Standard Internal System	30%	\$	493,910
✓	Illumination		2%	\$	40,940
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	98,782
✓	Sewer	Minor Adjustments	4%	\$	65,855
✓	Establish Turf / Erosion Control		2%	\$	32,927
✓	Basic Landscaping		4%	\$	65,855
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 946,441
Paving and Allowance Subtotal:					\$ 2,592,807
Construction Contingency: 15%					\$ 388,921
Construction Cost TOTAL:					\$ 2,982,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,982,000
Engineering/Survey/Testing:		20%	\$ 596,400
Mobilization		5%	\$ 149,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 298,200
Impact Fee Project Cost TOTAL:			\$ 4,026,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-6
Name:	Bonds Ranch (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector with a wide median.</b>		
Limits:	FM 156 to Harmon			
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	5,295			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	21,768	cy	\$ 17.00	\$ 370,062
213	6" Lime Stabilization (with Lime @ 32#/sy)	29,417	sy	\$ 4.00	\$ 117,667
313	11" Concrete Pavement	27,063	sy	\$ 55.00	\$ 1,488,483
413	6" Curb and Gutter	21,180	lf	\$ 7.00	\$ 148,260
513	4" Topsoil	37,653	sy	\$ 5.00	\$ 188,267
613	10' Concrete Sidewalk	105,900	sf	\$ 6.00	\$ 635,400
711	Auxiliary Lanes and Median Openings Allotment	2,126	sf	\$ 59.00	\$ 125,435
Paving Construction Cost Subtotal:					\$ 3,073,574
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	92,207
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	92,207
✓	Pavement Markings/Markers		3%	\$	92,207
✓	Roadway Drainage	Standard Internal System	30%	\$	922,072
✓	Illumination		2%	\$	76,430
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	184,414
✓	Sewer	Minor Adjustments	4%	\$	122,943
✓	Establish Turf / Erosion Control		2%	\$	61,471
✓	Basic Landscaping		4%	\$	122,943
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,766,895
Paving and Allowance Subtotal:					\$ 4,840,469
Construction Contingency: 15%					\$ 726,070
Construction Cost TOTAL:					\$ 5,567,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,567,000
Engineering/Survey/Testing:		20%	\$ 1,113,400
Mobilization		5%	\$ 278,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 556,700
Impact Fee Project Cost TOTAL:			\$ 7,515,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-7
Name:	Golden Triangle (1)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided commercial connector.</b>		
Limits:	470' E of Misty Redwood to Golden Heights			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,335			
Service Area(s):	C			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	2,003	cy	\$ 17.00	\$ 34,043
224	6" Lime Stabilization (with Lime @ 32#/sy)	3,857	sy	\$ 4.00	\$ 15,427
324	11" Concrete Pavement	3,560	sy	\$ 55.00	\$ 195,800
424	6" Curb and Gutter	2,670	lf	\$ 7.00	\$ 18,690
524	4" Topsoil	3,115	sy	\$ 5.00	\$ 15,575
624	10' Concrete Sidewalk	13,350	sf	\$ 6.00	\$ 80,100
722	Auxiliary Lanes and Median Openings Allotment	536	sf	\$ 59.00	\$ 31,625

**Paving Construction Cost Subtotal: \$ 391,260**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 11,738
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 11,738
✓ Pavement Markings/Markers		3%	\$ 11,738
✓ Roadway Drainage	Standard Internal System	30%	\$ 117,378
✓ Illumination		2%	\$ 9,729
✓ Special Drainage Structures	Minor Stream Crossing(s)	\$ 144,500	\$ 144,500
✓ Water	Minor Adjustments	6%	\$ 23,476
✓ Sewer	Minor Adjustments	4%	\$ 15,650
✓ Establish Turf / Erosion Control		2%	\$ 7,825
✓ Basic Landscaping		4%	\$ 15,650
Other:		\$0	\$ -

**Allowance Subtotal: \$ 369,422**

**Paving and Allowance Subtotal: \$ 760,682**

**Construction Contingency: 15% \$ 114,102**

**Construction Cost TOTAL: \$ 875,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 875,000
Engineering/Survey/Testing:		20%	\$ 175,000
Mobilization		5%	\$ 43,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 87,500

**Impact Fee Project Cost TOTAL: \$ 1,181,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-8
Name:	Golden Triangle (2)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	Golden Heights to Harmon (Future)			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	595			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	1,785	cy	\$ 17.00	\$ 30,345
223	6" Lime Stabilization (with Lime @ 32#/sy)	3,438	sy	\$ 4.00	\$ 13,751
323	11" Concrete Pavement	3,173	sy	\$ 55.00	\$ 174,533
423	6" Curb and Gutter	2,380	lf	\$ 7.00	\$ 16,660
523	4" Topsoil	2,777	sy	\$ 5.00	\$ 13,883
623	10' Concrete Sidewalk	11,900	sf	\$ 6.00	\$ 71,400
721	Auxiliary Lanes and Median Openings Allotment	239	sf	\$ 59.00	\$ 14,095
Paving Construction Cost Subtotal:					\$ 334,668
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	10,040
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	10,040
✓	Roadway Drainage	Standard Internal System	30%	\$	100,400
✓	Illumination		2%	\$	8,322
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	20,080
✓	Sewer	Minor Adjustments	4%	\$	13,387
✓	Establish Turf / Erosion Control		2%	\$	6,693
✓	Basic Landscaping		4%	\$	13,387
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 182,349
Paving and Allowance Subtotal:					\$ 517,017
Construction Contingency: 15%					\$ 77,553
Construction Cost TOTAL:					\$ 595,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 595,000
Engineering/Survey/Testing:		20%	\$ 119,000
Mobilization		5%	\$ 29,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 119,000
Impact Fee Project Cost TOTAL:			\$ 863,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-9
Name:	Golden Triangle (3)	<b>This project consists of the construction of a new four-lane divided commercial connector with a wide median.</b>		
Limits:	Harmon (Future) to 615' E of Harmon			
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (W)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	615			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	2,597	cy	\$ 17.00	\$ 44,143
206	6" Lime Stabilization (with Lime @ 32#/sy)	3,553	sy	\$ 4.00	\$ 14,213
306	11" Concrete Pavement	3,280	sy	\$ 55.00	\$ 180,400
406	6" Curb and Gutter	2,460	lf	\$ 7.00	\$ 17,220
506	4" Topsoil	4,237	sy	\$ 5.00	\$ 21,183
606	10' Concrete Sidewalk	12,300	sf	\$ 6.00	\$ 73,800
704	Auxiliary Lanes and Median Openings Allotment	247	sf	\$ 59.00	\$ 14,569
Paving Construction Cost Subtotal:					\$ 365,529
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	10,966
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	10,966
✓	Roadway Drainage		30%	\$	109,659
✓	Illumination		2%	\$	9,089
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	21,932
✓	Sewer	Minor Adjustments	4%	\$	14,621
✓	Establish Turf / Erosion Control		2%	\$	7,311
✓	Basic Landscaping		4%	\$	14,621
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 199,165
Paving and Allowance Subtotal:					\$ 564,694
Construction Contingency:					15% \$ 84,704
Construction Cost TOTAL:					\$ 650,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 650,000
Engineering/Survey/Testing:		20%	\$ 130,000
Mobilization		5%	\$ 32,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 130,000
Impact Fee Project Cost TOTAL:			\$ 943,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-10
Name:	Golden Triangle (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a six-lane divided commercial connector.</b>	
Limits:	615' E of Harmon to IH-35W		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	1,425		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
104	Unclassified Street Excavation	6,017	cy	\$ 17.00	\$ 102,283
204	6" Lime Stabilization (with Lime @ 32#/sy)	11,717	sy	\$ 4.00	\$ 46,867
304	11" Concrete Pavement	11,083	sy	\$ 55.00	\$ 609,583
404	6" Curb and Gutter	5,700	lf	\$ 7.00	\$ 39,900
504	4" Topsoil	6,333	sy	\$ 5.00	\$ 31,667
604	10' Concrete Sidewalk	28,500	sf	\$ 6.00	\$ 171,000
702	Auxiliary Lanes and Median Openings Allotment	572	sf	\$ 59.00	\$ 33,757
Paving Construction Cost Subtotal:					\$ 1,035,057
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	31,052
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	31,052
✓	Pavement Markings/Markers		3%	\$	31,052
✓	Roadway Drainage	Standard Internal System	30%	\$	310,517
✓	Illumination		2%	\$	25,738
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	62,103
✓	Sewer	Minor Adjustments	4%	\$	41,402
✓	Establish Turf / Erosion Control		2%	\$	20,701
✓	Basic Landscaping		4%	\$	41,402
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 595,020
Paving and Allowance Subtotal:					\$ 1,630,077
Construction Contingency: 15%					\$ 244,512
Construction Cost TOTAL:					\$ 1,875,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,875,000
Engineering/Survey/Testing:		20%	\$ 375,000
Mobilization		5%	\$ 93,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 187,500
Impact Fee Project Cost TOTAL:			\$ 2,531,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 9/29/2017

Project Information:		Description:	Project No. C-11
Name:	Heritage Trace (6)	<b>This project consists of the construction of a new six-lane divided commercial connector with a wide median.</b>	
Limits:	Wagley Robertson to Wagley Robertson (Future)		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (W)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	405		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	2,025	cy	\$ 17.00	\$ 34,425
203	6" Lime Stabilization (with Lime @ 32#/sy)	2,970	sy	\$ 4.00	\$ 11,880
303	11" Concrete Pavement	2,790	sy	\$ 55.00	\$ 153,450
403	6" Curb and Gutter	1,620	lf	\$ 7.00	\$ 11,340
503	4" Topsoil	2,520	sy	\$ 5.00	\$ 12,600
603	6' Concrete Sidewalk	4,860	sf	\$ 6.00	\$ 29,160
701	Auxiliary Lanes and Median Openings Allotment	163	sf	\$ 59.00	\$ 9,594
Paving Construction Cost Subtotal:					\$ 262,449
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
√	Prep ROW		3%	\$	7,873
	Traffic Control	None Anticipated	0%	\$	-
√	Pavement Markings/Markers		3%	\$	7,873
√	Roadway Drainage	Standard Internal System	30%	\$	78,735
√	Illumination		2%	\$	6,526
	Special Drainage Structures	None Anticipated	\$ -	\$	-
√	Water	Minor Adjustments	6%	\$	15,747
√	Sewer	Minor Adjustments	4%	\$	10,498
√	Establish Turf / Erosion Control		2%	\$	5,249
√	Basic Landscaping		4%	\$	10,498
	Other:		\$0	\$	-
Allowance Subtotal:				\$	143,000
Paving and Allowance Subtotal:				\$	405,449
Construction Contingency:				15%	\$ 60,817
Construction Cost TOTAL:				\$	467,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 467,000
Engineering/Survey/Testing:		20%	\$ 93,400
Mobilization		5%	\$ 23,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 93,400
Impact Fee Project Cost TOTAL:			\$ 677,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-12
Name:	Heritage Trace (7)	<b>This project consists of the construction of a new four-lane divided neighborhood connector with a wide median.</b>	
Limits:	Wagley Robertson (Future) to Copper Crossing		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BLS (130) (W)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	5,695		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	23,413	cy	\$ 17.00	\$ 398,017
209	6" Lime Stabilization (with Lime @ 32#/sy)	31,639	sy	\$ 4.00	\$ 126,556
309	11" Concrete Pavement	29,108	sy	\$ 55.00	\$ 1,600,928
409	6" Curb and Gutter	22,780	lf	\$ 7.00	\$ 159,460
509	4" Topsoil	39,232	sy	\$ 5.00	\$ 196,161
609	11' Concrete Sidewalk	125,290	sf	\$ 6.00	\$ 751,740
707	Auxiliary Lanes and Median Openings Allotment	2,287	sf	\$ 59.00	\$ 134,911
Paving Construction Cost Subtotal:					\$ 3,367,773
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	101,033
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	101,033
✓	Roadway Drainage		30%	\$	1,010,332
✓	Illumination	Drainage Crossing(s)	2%	\$	83,745
✓	Special Drainage Structures		\$ 663,750	\$	663,750
✓	Water	Minor Adjustments	6%	\$	202,066
✓	Sewer	Minor Adjustments	4%	\$	134,711
✓	Establish Turf / Erosion Control		2%	\$	67,355
✓	Basic Landscaping		4%	\$	134,711
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
Allowance Subtotal:					\$ 2,998,737
Paving and Allowance Subtotal:					\$ 6,366,510
Construction Contingency:					15% \$ 879,976
Construction Cost TOTAL:					\$ 7,247,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,247,000
Engineering/Survey/Testing:		20%	\$ 1,449,400
Mobilization		5%	\$ 362,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,449,400
Impact Fee Project Cost TOTAL:			\$ 10,508,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-13
Name:	Heritage Trace (8)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	Copper Crossing to FM 156		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	1,890		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
110	Unclassified Street Excavation	2,730	cy	\$ 17.00	\$ 46,410
210	6" Lime Stabilization (with Lime @ 32#/sy)	5,250	sy	\$ 4.00	\$ 21,000
310	11" Concrete Pavement	4,830	sy	\$ 55.00	\$ 265,650
410	6" Curb and Gutter	3,780	lf	\$ 7.00	\$ 26,460
510	4" Topsoil	0	sy	\$ 5.00	\$ -
610	11' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
708	Auxiliary Lanes and Median Openings Allotment	644	sf	\$ 59.00	\$ 38,015
Paving Construction Cost Subtotal:					\$ 397,535
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	11,926
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	11,926
✓	Pavement Markings/Markers		3%	\$	11,926
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	7,951
✓	Basic Landscaping		4%	\$	15,901
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 59,630
Paving and Allowance Subtotal:					\$ 457,165
Construction Contingency: 15%					\$ 68,575
Construction Cost TOTAL:					\$ 526,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 526,000
Engineering/Survey/Testing:		20%	\$ 105,200
Mobilization		5%	\$ 26,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 658,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-14
Name:	Heritage Trace (9)	<b>This project consists of the construction of a new four-lane divided neighborhood connector with a wide median.</b>	
Limits:	Blue Mound to US 287 SBFR		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	2,785		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	11,449	cy	\$ 17.00	\$ 194,641
213	6" Lime Stabilization (with Lime @ 32#/sy)	15,472	sy	\$ 4.00	\$ 61,889
313	11" Concrete Pavement	14,234	sy	\$ 55.00	\$ 782,894
413	6" Curb and Gutter	11,140	lf	\$ 7.00	\$ 77,980
513	4" Topsoil	19,804	sy	\$ 5.00	\$ 99,022
613	10' Concrete Sidewalk	55,700	sf	\$ 6.00	\$ 334,200
711	Auxiliary Lanes and Median Openings Allotment	1,118	sf	\$ 59.00	\$ 65,975
Paving Construction Cost Subtotal:					\$ 1,616,601
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	48,498
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	48,498
✓	Roadway Drainage	Standard Internal System	30%	\$	484,980
✓	Illumination		2%	\$	40,199
✓	Special Drainage Structures	Major Stream Crossing(s)	\$ 405,000	\$	405,000
✓	Water	Minor Adjustments	6%	\$	96,996
✓	Sewer	Minor Adjustments	4%	\$	64,664
✓	Establish Turf / Erosion Control		2%	\$	32,332
✓	Basic Landscaping		4%	\$	64,664
✓	Other:	US 287 Crossing Allotment	\$1,000,000	\$	1,000,000
Allowance Subtotal:					\$ 2,285,832
Paving and Allowance Subtotal:					\$ 3,902,433
Construction Contingency: 15%					\$ 435,365
Construction Cost TOTAL:					\$ 4,338,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,338,000
Engineering/Survey/Testing:		20%	\$ 867,600
Mobilization		5%	\$ 216,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 867,600
Impact Fee Project Cost TOTAL:			\$ 6,290,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-15
Name:	Heritage Trace (10)	<b>This project consists of the construction of a new four-lane divided neighborhood connector with a wide median.</b>	
Limits:	US 287 to 1,145' E of US 287		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	1,145		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	4,707	cy	\$ 17.00	\$ 80,023
213	6" Lime Stabilization (with Lime @ 32#/sy)	6,361	sy	\$ 4.00	\$ 25,444
313	11" Concrete Pavement	5,852	sy	\$ 55.00	\$ 321,872
413	6" Curb and Gutter	4,580	lf	\$ 7.00	\$ 32,060
513	4" Topsoil	8,142	sy	\$ 5.00	\$ 40,711
613	10' Concrete Sidewalk	22,900	sf	\$ 6.00	\$ 137,400
711	Auxiliary Lanes and Median Openings Allotment	460	sf	\$ 59.00	\$ 27,124
Paving Construction Cost Subtotal:					\$ 664,635
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	19,939
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	19,939
✓	Roadway Drainage	Standard Internal System	30%	\$	199,390
✓	Illumination		2%	\$	16,527
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	39,878
✓	Sewer	Minor Adjustments	4%	\$	26,585
✓	Establish Turf / Erosion Control		2%	\$	13,293
✓	Basic Landscaping		4%	\$	26,585
✓	Other:	Bridge over US 287	\$2,000,000	\$	2,000,000
Allowance Subtotal:					\$ 2,362,137
Paving and Allowance Subtotal:					\$ 3,026,772
Construction Contingency: 15%					\$ 154,016
Construction Cost TOTAL:					\$ 3,181,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,181,000
Engineering/Survey/Testing:		20%	\$ 636,200
Mobilization		5%	\$ 159,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 636,200
Impact Fee Project Cost TOTAL:			\$ 4,612,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-16
Name:	Heritage Trace (11)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	135' W of Creosote to Harmon		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	2,080		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	3,004	cy	\$ 17.00	\$ 51,076
212	6" Lime Stabilization (with Lime @ 32#/sy)	5,778	sy	\$ 4.00	\$ 23,111
312	11" Concrete Pavement	5,316	sy	\$ 55.00	\$ 292,356
412	6" Curb and Gutter	4,160	lf	\$ 7.00	\$ 29,120
512	4" Topsoil	0	sy	\$ 5.00	\$ -
612	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
710	Auxiliary Lanes and Median Openings Allotment	709	sf	\$ 59.00	\$ 41,836
Paving Construction Cost Subtotal:					\$ 437,499
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	13,125
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	13,125
✓	Pavement Markings/Markers		3%	\$	13,125
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	8,750
✓	Basic Landscaping		4%	\$	17,500
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 65,625
Paving and Allowance Subtotal:				\$	503,123
Construction Contingency:				15%	\$ 75,469
Construction Cost TOTAL:				\$	579,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 579,000
Engineering/Survey/Testing:		20%	\$ 115,800
Mobilization		5%	\$ 28,950
Previous City contribution			\$ -
Other			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 724,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-17
Name:	N. Tarrant (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	US 287 SBFR to US 287 NBFR		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	785		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	2,268	cy	\$ 17.00	\$ 38,552
228	6" Lime Stabilization (with Lime @ 32#/sy)	4,361	sy	\$ 4.00	\$ 17,444
328	11" Concrete Pavement	4,012	sy	\$ 55.00	\$ 220,672
428	6" Curb and Gutter	3,140	lf	\$ 7.00	\$ 21,980
528	4" Topsoil	3,663	sy	\$ 5.00	\$ 18,317
628	11' Concrete Sidewalk	17,270	sf	\$ 6.00	\$ 103,620
726	Auxiliary Lanes and Median Openings Allotment	315	sf	\$ 59.00	\$ 18,596
Paving Construction Cost Subtotal:					\$ 439,182
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW	None Anticipated		3%	\$ 13,175
	Traffic Control			0%	\$ -
✓	Pavement Markings/Markers	Standard Internal System		3%	\$ 13,175
✓	Roadway Drainage			30%	\$ 131,755
✓	Illumination			2%	\$ 10,921
	Special Drainage Structures	None Anticipated		\$ -	\$ -
✓	Water	Minor Adjustments		6%	\$ 26,351
✓	Sewer	Minor Adjustments		4%	\$ 17,567
✓	Establish Turf / Erosion Control			2%	\$ 8,784
✓	Basic Landscaping			4%	\$ 17,567
✓	Other:	US 287 Crossing Allotment		\$3,000,000	\$ 3,000,000
Allowance Subtotal:					\$ 3,239,295
Paving and Allowance Subtotal:					\$ 3,678,477
Construction Contingency:					15% \$ 101,772
Construction Cost TOTAL:					\$ 3,781,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,781,000
Engineering/Survey/Testing:		20%	\$ 756,200
Mobilization		5%	\$ 189,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 756,200
Impact Fee Project Cost TOTAL:			\$ 5,482,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-18
Name:	N. Tarrant (2)	<b>This project consists of the construction of the widening of an existing asphalt facility to a four-lane divided commercial connector.</b>	
Limits:	US 287 NBFR to 335' E of US 287 NBFR		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	335		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
101	Unclassified Street Excavation	1,675	cy	\$ 17.00	\$ 28,475
201	6" Lime Stabilization (with Lime @ 32#/sy)	3,276	sy	\$ 4.00	\$ 13,102
301	11" Concrete Pavement	3,127	sy	\$ 55.00	\$ 171,967
401	6" Curb and Gutter	1,340	lf	\$ 7.00	\$ 9,380
501	4" Topsoil	1,266	sy	\$ 5.00	\$ 6,328
601	6' Concrete Sidewalk	4,020	sf	\$ 6.00	\$ 24,120
701	Auxiliary Lanes and Median Openings Allotment	135	sf	\$ 59.00	\$ 7,936
Paving Construction Cost Subtotal:					\$ 261,308
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	7,839
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	7,839
✓	Pavement Markings/Markers		3%	\$	7,839
✓	Roadway Drainage	Standard Internal System	30%	\$	78,392
✓	Illumination		2%	\$	6,498
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	15,678
✓	Sewer	Minor Adjustments	4%	\$	10,452
✓	Establish Turf / Erosion Control		2%	\$	5,226
✓	Basic Landscaping		4%	\$	10,452
	Other:				
Allowance Subtotal:					\$ 150,217
Paving and Allowance Subtotal:					\$ 411,525
Construction Contingency:					15% \$ 61,729
Construction Cost TOTAL:					\$ 474,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 474,000
Engineering/Survey/Testing:		20%	\$ 94,800
Mobilization		5%	\$ 23,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 47,400
Impact Fee Project Cost TOTAL:			\$ 640,000

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**City of Fort Worth**  
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Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-19
Name:	Bailey Boswell (4)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	FM 156 to Horseman		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	3,665		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,588	cy	\$ 17.00	\$ 179,992
230	6" Lime Stabilization (with Lime @ 32#/sy)	20,361	sy	\$ 4.00	\$ 81,444
330	11" Concrete Pavement	18,732	sy	\$ 55.00	\$ 1,030,272
430	6" Curb and Gutter	14,660	lf	\$ 7.00	\$ 102,620
530	4" Topsoil	17,918	sy	\$ 5.00	\$ 89,589
630	10' Concrete Sidewalk	73,300	sf	\$ 6.00	\$ 439,800
728	Auxiliary Lanes and Median Openings Allotment	1,472	sf	\$ 59.00	\$ 86,822
Paving Construction Cost Subtotal:					\$ 2,010,539
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	60,316
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	60,316
✓	Roadway Drainage	Standard Internal System	30%	\$	603,162
✓	Illumination		2%	\$	49,995
✓	Special Drainage Structures	Drainage Crossing(s)	\$ 1,361,250	\$	1,361,250
✓	Water	Minor Adjustments	6%	\$	120,632
✓	Sewer	Minor Adjustments	4%	\$	80,422
✓	Establish Turf / Erosion Control		2%	\$	40,211
✓	Basic Landscaping		4%	\$	80,422
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,456,726
Paving and Allowance Subtotal:					\$ 4,467,265
Construction Contingency:					15% \$ 670,090
Construction Cost TOTAL:					\$ 5,138,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,138,000
Engineering/Survey/Testing:		20%	\$ 1,027,600
Mobilization		5%	\$ 256,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,027,600
Impact Fee Project Cost TOTAL:			\$ 7,450,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-20, F-1
Name:	Basswood	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	Candler to IH-35 W		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	1,640		
Service Area(s):	C, F		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	2,369	cy	\$ 17.00	\$ 40,271
212	6" Lime Stabilization (with Lime @ 32#/sy)	4,556	sy	\$ 4.00	\$ 18,222
312	11" Concrete Pavement	4,191	sy	\$ 55.00	\$ 230,511
412	6" Curb and Gutter	3,280	lf	\$ 7.00	\$ 22,960
512	4" Topsoil	0	sy	\$ 5.00	\$ -
612	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
710	Auxiliary Lanes and Median Openings Allotment	559	sf	\$ 59.00	\$ 32,986
Paving Construction Cost Subtotal:					\$ 344,951
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	10,349
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	10,349
✓	Pavement Markings/Markers		3%	\$	10,349
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	6,899
✓	Basic Landscaping		4%	\$	13,798
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 51,743
Paving and Allowance Subtotal:					\$ 396,693
Construction Contingency:					15% \$ 59,504
Construction Cost TOTAL:					\$ 457,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 457,000
Engineering/Survey/Testing:		20%	\$ 91,400
Mobilization		5%	\$ 22,850
Previous City contribution			\$ -
Other			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 571,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-21, B-27
Name:	Wagley Robertson (3)	<b>This project consist of the construction of a new four-lane divided commerical connector.</b>	
Limits:	245' N of US 287 to 725' S of US 287		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	970		
Service Area(s):	C, B		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	2,910	cy	\$ 17.00	\$ 49,470
223	6" Lime Stabilization (with Lime @ 32#/sy)	5,604	sy	\$ 4.00	\$ 22,418
323	11" Concrete Pavement	5,173	sy	\$ 55.00	\$ 284,533
423	6" Curb and Gutter	3,880	lf	\$ 7.00	\$ 27,160
523	4" Topsoil	4,527	sy	\$ 5.00	\$ 22,633
623	10' Concrete Sidewalk	19,400	sf	\$ 6.00	\$ 116,400
721	Auxiliary Lanes and Median Openings Allotment	389	sf	\$ 59.00	\$ 22,979
Paving Construction Cost Subtotal:					\$ 545,593
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,368
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	16,368
✓	Roadway Drainage	Standard Internal System	30%	\$	163,678
✓	Illumination		2%	\$	13,567
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	32,736
✓	Sewer	Minor Adjustments	4%	\$	21,824
✓	Establish Turf / Erosion Control		2%	\$	10,912
✓	Basic Landscaping		4%	\$	21,824
✓	Other:	US 287 Crossing Allotment	\$3,000,000	\$	3,000,000
Allowance Subtotal:					\$ 3,297,276
Paving and Allowance Subtotal:					\$ 3,842,869
Construction Contingency:					15% \$ 126,430
Construction Cost TOTAL:					\$ 3,970,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,970,000
Engineering/Survey/Testing:		20%	\$ 794,000
Mobilization		5%	\$ 198,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 794,000
Impact Fee Project Cost TOTAL:			\$ 5,757,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
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Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-22
Name:	Wagley Robertson (4)	<b>This project consists of the construction of the western lanes to complete the four-lane divided commercial connector.</b>		
Limits:	565' N of Hawks Landing to Hawks Landing			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	565			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	848	cy	\$ 17.00	\$ 14,408
224	6" Lime Stabilization (with Lime @ 32#/sy)	1,632	sy	\$ 4.00	\$ 6,529
324	11" Concrete Pavement	1,507	sy	\$ 55.00	\$ 82,867
424	6" Curb and Gutter	1,130	lf	\$ 7.00	\$ 7,910
524	4" Topsoil	1,318	sy	\$ 5.00	\$ 6,592
624	10' Concrete Sidewalk	5,650	sf	\$ 6.00	\$ 33,900
722	Auxiliary Lanes and Median Openings Allotment	227	sf	\$ 59.00	\$ 13,385
Paving Construction Cost Subtotal:					\$ 165,589
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	4,968
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	4,968
✓	Pavement Markings/Markers		3%	\$	4,968
✓	Roadway Drainage	Standard Internal System	30%	\$	49,677
✓	Illumination		2%	\$	4,118
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	9,935
✓	Sewer	Minor Adjustments	4%	\$	6,624
✓	Establish Turf / Erosion Control		2%	\$	3,312
✓	Basic Landscaping		4%	\$	6,624
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 95,192
Paving and Allowance Subtotal:					\$ 260,781
Construction Contingency:					15% \$ 39,117
Construction Cost TOTAL:					\$ 300,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 300,000
Engineering/Survey/Testing:		20%	\$ 60,000
Mobilization		5%	\$ 15,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 30,000
Impact Fee Project Cost TOTAL:			\$ 405,000

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**City of Fort Worth**  
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**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-23
Name:	Wagley Robertson (5)	<b>This project consists of the construction of the western lanes to complete the four-lane divided neighborhood connector.</b>		
Limits:	Hawks Landing to 310' N of Bonds Ranch			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,145			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	3,098	cy	\$ 17.00	\$ 52,672
231	6" Lime Stabilization (with Lime @ 32#/sy)	5,958	sy	\$ 4.00	\$ 23,833
331	11" Concrete Pavement	5,482	sy	\$ 55.00	\$ 301,492
431	6" Curb and Gutter	4,290	lf	\$ 7.00	\$ 30,030
531	4" Topsoil	5,243	sy	\$ 5.00	\$ 26,217
631	10' Concrete Sidewalk	21,450	sf	\$ 6.00	\$ 128,700
729	Auxiliary Lanes and Median Openings Allotment	861	sf	\$ 59.00	\$ 50,814
Paving Construction Cost Subtotal:					\$ 613,757
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	18,413
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	18,413
✓	Pavement Markings/Markers		3%	\$	18,413
✓	Roadway Drainage	Standard Internal System	30%	\$	184,127
✓	Illumination		2%	\$	15,262
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	36,825
✓	Sewer	Minor Adjustments	4%	\$	24,550
✓	Establish Turf / Erosion Control		2%	\$	12,275
✓	Basic Landscaping		4%	\$	24,550
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 352,828
Paving and Allowance Subtotal:					\$ 966,586
Construction Contingency:					15% \$ 144,988
Construction Cost TOTAL:					\$ 1,112,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,112,000
Engineering/Survey/Testing:		20%	\$ 222,400
Mobilization		5%	\$ 55,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 111,200
Impact Fee Project Cost TOTAL:			\$ 1,501,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-24, E-18
Name:	Wagley Robertson (6)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
Limits:	690' N of Quicksilver to 1795' S of Bent Oak		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	3,310		
Service Area(s):	C, E		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	10,849	cy	\$ 17.00	\$ 184,441
233	6" Lime Stabilization (with Lime @ 32#/sy)	21,331	sy	\$ 4.00	\$ 85,324
333	11" Concrete Pavement	20,596	sy	\$ 55.00	\$ 1,132,756
433	6" Curb and Gutter	6,620	lf	\$ 7.00	\$ 46,340
533	4" Topsoil	12,504	sy	\$ 5.00	\$ 62,522
633	10' Concrete Sidewalk	66,200	sf	\$ 6.00	\$ 397,200
731	Auxiliary Lanes and Median Openings Allotment	564	sf	\$ 59.00	\$ 33,288
Paving Construction Cost Subtotal:					\$ 1,941,871
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	58,256
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	58,256
✓	Pavement Markings/Markers		3%	\$	58,256
✓	Roadway Drainage	Standard Internal System	30%	\$	582,561
✓	Illumination		2%	\$	48,288
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	116,512
✓	Sewer	Minor Adjustments	4%	\$	77,675
✓	Establish Turf / Erosion Control		2%	\$	38,837
✓	Basic Landscaping		4%	\$	77,675
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,116,317
Paving and Allowance Subtotal:					\$ 3,058,188
Construction Contingency:					15% \$ 458,728
Construction Cost TOTAL:					\$ 3,517,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,517,000
Engineering/Survey/Testing:		20%	\$ 703,400
Mobilization		5%	\$ 175,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 351,700
Impact Fee Project Cost TOTAL:			\$ 4,748,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-25
Name:	Wagley Robertson (7)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	735' N of Heritage Trace to Heritage Trace		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	735		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	2,123	cy	\$ 17.00	\$ 36,097
230	6" Lime Stabilization (with Lime @ 32#/sy)	4,083	sy	\$ 4.00	\$ 16,333
330	11" Concrete Pavement	3,757	sy	\$ 55.00	\$ 206,617
430	6" Curb and Gutter	2,940	lf	\$ 7.00	\$ 20,580
530	4" Topsoil	3,593	sy	\$ 5.00	\$ 17,967
630	10' Concrete Sidewalk	14,700	sf	\$ 6.00	\$ 88,200
728	Auxiliary Lanes and Median Openings Allotment	295	sf	\$ 59.00	\$ 17,412
Paving Construction Cost Subtotal:					\$ 403,205
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	12,096
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	12,096
✓	Roadway Drainage		30%	\$	120,962
✓	Illumination		2%	\$	10,026
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	24,192
✓	Sewer	Minor Adjustments	4%	\$	16,128
✓	Establish Turf / Erosion Control		2%	\$	8,064
✓	Basic Landscaping		4%	\$	16,128
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 219,693
Paving and Allowance Subtotal:				\$	622,898
Construction Contingency:				15%	\$ 93,435
Construction Cost TOTAL:				\$	717,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 717,000
Engineering/Survey/Testing:		20%	\$ 143,400
Mobilization		5%	\$ 35,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 143,400
Impact Fee Project Cost TOTAL:			\$ 1,040,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-26
Name:	Wagley Robertson (8)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>	
Limits:	Heritage Trace to 1465' S of Heritage Trace		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	1,465		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	3,011	cy	\$ 17.00	\$ 51,194
241	6" Lime Stabilization (with Lime @ 32#/sy)	5,860	sy	\$ 4.00	\$ 23,440
341	11" Concrete Pavement	5,534	sy	\$ 55.00	\$ 304,394
441	6" Curb and Gutter	2,930	lf	\$ 7.00	\$ 20,510
541	4" Topsoil	4,232	sy	\$ 5.00	\$ 21,161
641	10' Concrete Sidewalk	29,300	sf	\$ 6.00	\$ 175,800
739	Auxiliary Lanes and Median Openings Allotment	250	sf	\$ 59.00	\$ 14,733
Paving Construction Cost Subtotal:					\$ 611,232
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	18,337
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	18,337
✓	Roadway Drainage	Standard Internal System	30%	\$	183,370
✓	Illumination		2%	\$	15,199
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	36,674
✓	Sewer	Minor Adjustments	4%	\$	24,449
✓	Establish Turf / Erosion Control		2%	\$	12,225
✓	Basic Landscaping		4%	\$	24,449
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 333,040
Paving and Allowance Subtotal:					\$ 944,273
Construction Contingency:					15% \$ 141,641
Construction Cost TOTAL:					\$ 1,086,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,086,000
Engineering/Survey/Testing:		20%	\$ 217,200
Mobilization		5%	\$ 54,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 217,200
Impact Fee Project Cost TOTAL:			\$ 1,575,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-27, E-19
Name:	Wagley Robertson (9)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>	
Limits:	145' N of Mystic River to 715' S of Mystic River		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	860		
Service Area(s):	C, E		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	1,768	cy	\$ 17.00	\$ 30,052
241	6" Lime Stabilization (with Lime @ 32#/sy)	3,440	sy	\$ 4.00	\$ 13,760
341	11" Concrete Pavement	3,249	sy	\$ 55.00	\$ 178,689
441	6" Curb and Gutter	1,720	lf	\$ 7.00	\$ 12,040
541	4" Topsoil	2,484	sy	\$ 5.00	\$ 12,422
641	10' Concrete Sidewalk	17,200	sf	\$ 6.00	\$ 103,200
739	Auxiliary Lanes and Median Openings Allotment	147	sf	\$ 59.00	\$ 8,649
Paving Construction Cost Subtotal:					\$ 358,812
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	10,764
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	10,764
✓	Pavement Markings/Markers		3%	\$	10,764
✓	Roadway Drainage	Standard Internal System	30%	\$	107,644
✓	Illumination		2%	\$	8,922
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	21,529
✓	Sewer	Minor Adjustments	4%	\$	14,352
✓	Establish Turf / Erosion Control		2%	\$	7,176
✓	Basic Landscaping		4%	\$	14,352
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 206,269
Paving and Allowance Subtotal:					\$ 565,081
Construction Contingency:					15% \$ 84,762
Construction Cost TOTAL:					\$ 650,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 650,000
Engineering/Survey/Testing:		20%	\$ 130,000
Mobilization		5%	\$ 32,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 65,000
Impact Fee Project Cost TOTAL:			\$ 878,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-28
Name:	Harmon (1)	<b>This project consists of the construction of a new three-lane undivided commercial connector.</b>	
Limits:	Keller Hicks to 2,475' S of Keller Hicks		
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Commercial Connector		
Length (lf):	2,475		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	5,363	cy	\$ 17.00	\$ 91,163
239	6" Lime Stabilization (with Lime @ 32#/sy)	10,450	sy	\$ 4.00	\$ 41,800
339	11" Concrete Pavement	9,900	sy	\$ 55.00	\$ 544,500
439	6" Curb and Gutter	4,950	lf	\$ 7.00	\$ 34,650
539	4" Topsoil	6,600	sy	\$ 5.00	\$ 33,000
639	10' Concrete Sidewalk	49,500	sf	\$ 6.00	\$ 297,000
737	Auxiliary Lanes and Median Openings Allotment	422	sf	\$ 59.00	\$ 24,891
Paving Construction Cost Subtotal:					\$ 1,067,003
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	32,010
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	32,010
✓	Roadway Drainage	Standard Internal System	30%	\$	320,101
✓	Illumination		2%	\$	26,533
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	64,020
✓	Sewer	Minor Adjustments	4%	\$	42,680
✓	Establish Turf / Erosion Control		2%	\$	21,340
✓	Basic Landscaping		4%	\$	42,680
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 581,374
Paving and Allowance Subtotal:					\$ 1,648,378
Construction Contingency:					15% \$ 247,257
Construction Cost TOTAL:					\$ 1,896,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,896,000
Engineering/Survey/Testing:		20%	\$ 379,200
Mobilization		5%	\$ 94,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 379,200
Impact Fee Project Cost TOTAL:			\$ 2,749,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-29
Name:	Harmon (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided commercial connector.</b>	
Limits:	2,475' S of Keller Hicks to 640' N of Golden Triangle		
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Commercial Connector		
Length (lf):	855		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	1,853	cy	\$ 17.00	\$ 31,493
239	6" Lime Stabilization (with Lime @ 32#/sy)	3,610	sy	\$ 4.00	\$ 14,440
339	11" Concrete Pavement	3,420	sy	\$ 55.00	\$ 188,100
439	6" Curb and Gutter	1,710	lf	\$ 7.00	\$ 11,970
539	4" Topsoil	2,280	sy	\$ 5.00	\$ 11,400
639	10' Concrete Sidewalk	17,100	sf	\$ 6.00	\$ 102,600
737	Auxiliary Lanes and Median Openings Allotment	146	sf	\$ 59.00	\$ 8,599
Paving Construction Cost Subtotal:					\$ 368,601
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	11,058
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	11,058
✓	Pavement Markings/Markers		3%	\$	11,058
✓	Roadway Drainage	Standard Internal System	30%	\$	110,580
✓	Illumination		2%	\$	9,166
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	22,116
✓	Sewer	Minor Adjustments	4%	\$	14,744
✓	Establish Turf / Erosion Control		2%	\$	7,372
✓	Basic Landscaping		4%	\$	14,744
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 211,896
Paving and Allowance Subtotal:					\$ 580,498
Construction Contingency:					15% \$ 87,075
Construction Cost TOTAL:					\$ 668,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 668,000
Engineering/Survey/Testing:		20%	\$ 133,600
Mobilization		5%	\$ 33,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 66,800
Impact Fee Project Cost TOTAL:			\$ 902,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	C-30
Name:	Harmon (3)	<b>This project consists of the construction of a new three-lane undivided commercial connector.</b>		
Limits:	640' N of Golden Triangle to Golden Triangle			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	640			
Service Area(s):	C			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	1,387	cy	\$ 17.00	\$ 23,573
239	6" Lime Stabilization (with Lime @ 32#/sy)	2,702	sy	\$ 4.00	\$ 10,809
339	11" Concrete Pavement	2,560	sy	\$ 55.00	\$ 140,800
439	6" Curb and Gutter	1,280	lf	\$ 7.00	\$ 8,960
539	4" Topsoil	1,707	sy	\$ 5.00	\$ 8,533
639	10' Concrete Sidewalk	12,800	sf	\$ 6.00	\$ 76,800
737	Auxiliary Lanes and Median Openings Allotment	109	sf	\$ 59.00	\$ 6,436
Paving Construction Cost Subtotal:					\$ 275,912
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW	None Anticipated		3%	\$ 8,277
	Traffic Control			0%	\$ -
✓	Pavement Markings/Markers	Standard Internal System		3%	\$ 8,277
✓	Roadway Drainage			30%	\$ 82,774
✓	Illumination			2%	\$ 6,861
	Special Drainage Structures	None Anticipated		\$ -	\$ -
✓	Water	Minor Adjustments		6%	\$ 16,555
✓	Sewer	Minor Adjustments		4%	\$ 11,036
✓	Establish Turf / Erosion Control			2%	\$ 5,518
✓	Basic Landscaping			4%	\$ 11,036
	Other:			\$0	\$ -
Allowance Subtotal:					\$ 150,335
Paving and Allowance Subtotal:					\$ 426,247
Construction Contingency:					15% \$ 63,937
Construction Cost TOTAL:					\$ 491,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 491,000
Engineering/Survey/Testing:		20%	\$ 98,200
Mobilization		5%	\$ 24,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 98,200
Impact Fee Project Cost TOTAL:			\$ 712,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Harmon (4)	<b>This project consists of the construction of the western lanes to complete the four-lane divided neighborhood connector.</b>	<b>C-31</b>
Limits:	Bonds Ranch to Heritage Trace		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	3,440		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	4,969	cy	\$ 17.00	\$ 84,471
231	6" Lime Stabilization (with Lime @ 32#/sy)	9,556	sy	\$ 4.00	\$ 38,222
331	11" Concrete Pavement	8,791	sy	\$ 55.00	\$ 483,511
431	6" Curb and Gutter	6,880	lf	\$ 7.00	\$ 48,160
531	4" Topsoil	8,409	sy	\$ 5.00	\$ 42,044
631	10' Concrete Sidewalk	34,400	sf	\$ 6.00	\$ 206,400
729	Auxiliary Lanes and Median Openings Allotment	1,381	sf	\$ 59.00	\$ 81,492
Paving Construction Cost Subtotal:					\$ 984,300
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	29,529
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	29,529
✓	Pavement Markings/Markers		3%	\$	29,529
✓	Roadway Drainage	Standard Internal System	30%	\$	295,290
✓	Illumination		2%	\$	24,476
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	59,058
✓	Sewer	Minor Adjustments	4%	\$	39,372
✓	Establish Turf / Erosion Control		2%	\$	19,686
✓	Basic Landscaping		4%	\$	39,372
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 565,841
Paving and Allowance Subtotal:					\$ 1,550,142
Construction Contingency:					15% \$ 232,521
Construction Cost TOTAL:					\$ 1,783,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,783,000
Engineering/Survey/Testing:		20%	\$ 356,600
Mobilization		5%	\$ 89,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 178,300
Impact Fee Project Cost TOTAL:			\$ 2,407,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-32
Name:	Harmon (5)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
Limits:	Heritage Trace to US 287 NBFR		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	5,240		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	17,176	cy	\$ 17.00	\$ 291,984
233	6" Lime Stabilization (with Lime @ 32#/sy)	33,769	sy	\$ 4.00	\$ 135,076
333	11" Concrete Pavement	32,604	sy	\$ 55.00	\$ 1,793,244
433	6" Curb and Gutter	10,480	lf	\$ 7.00	\$ 73,360
533	4" Topsoil	19,796	sy	\$ 5.00	\$ 98,978
633	10' Concrete Sidewalk	104,800	sf	\$ 6.00	\$ 628,800
731	Auxiliary Lanes and Median Openings Allotment	893	sf	\$ 59.00	\$ 52,698
Paving Construction Cost Subtotal:					\$ 3,074,140
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW	Construction Phase Traffic Control		3%	\$ 92,224
✓	Traffic Control			3%	\$ 92,224
✓	Pavement Markings/Markers			3%	\$ 92,224
✓	Roadway Drainage	Standard Internal System		30%	\$ 922,242
✓	Illumination			2%	\$ 76,444
✓	Special Drainage Structures	Minor Stream Crossing(s)		\$ 211,750	\$ 211,750
✓	Water	Minor Adjustments		6%	\$ 184,448
✓	Sewer	Minor Adjustments		4%	\$ 122,966
✓	Establish Turf / Erosion Control			2%	\$ 61,483
✓	Basic Landscaping			4%	\$ 122,966
	Other:			\$0	\$ -
Allowance Subtotal:					\$ 1,978,971
Paving and Allowance Subtotal:					\$ 5,053,111
Construction Contingency:					15% \$ 757,967
Construction Cost TOTAL:					\$ 5,812,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,812,000
Engineering/Survey/Testing:		20%	\$ 1,162,400
Mobilization		5%	\$ 290,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 581,200
Impact Fee Project Cost TOTAL:			\$ 7,846,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.  
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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-33
Name:	Harmon (6)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	US 287 NBFR to US 287 SBFR		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	760		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	2,491	cy	\$ 17.00	\$ 42,349
233	6" Lime Stabilization (with Lime @ 32#/sy)	4,898	sy	\$ 4.00	\$ 19,591
333	11" Concrete Pavement	4,729	sy	\$ 55.00	\$ 260,089
433	6" Curb and Gutter	1,520	lf	\$ 7.00	\$ 10,640
533	4" Topsoil	2,871	sy	\$ 5.00	\$ 14,356
633	10' Concrete Sidewalk	15,200	sf	\$ 6.00	\$ 91,200
731	Auxiliary Lanes and Median Openings Allotment	130	sf	\$ 59.00	\$ 7,643
Paving Construction Cost Subtotal:					\$ 445,868
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	13,376
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	13,376
✓	Roadway Drainage	Standard Internal System	30%	\$	133,760
✓	Illumination		2%	\$	11,087
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	26,752
✓	Sewer	Minor Adjustments	4%	\$	17,835
✓	Establish Turf / Erosion Control		2%	\$	8,917
✓	Basic Landscaping		4%	\$	17,835
✓	Other:	US 287 Crossing Allotment	\$3,000,000	\$	3,000,000
Allowance Subtotal:					\$ 3,242,938
Paving and Allowance Subtotal:					\$ 3,688,806
Construction Contingency:					15% \$ 103,321
Construction Cost TOTAL:					\$ 3,793,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,793,000
Engineering/Survey/Testing:		20%	\$ 758,600
Mobilization		5%	\$ 189,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 758,600
Impact Fee Project Cost TOTAL:			\$ 5,500,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-34
Name:	Harmon (7)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	US 287 SBFR to Harmon		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	790		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	2,282	cy	\$ 17.00	\$ 38,798
228	6" Lime Stabilization (with Lime @ 32#/sy)	4,389	sy	\$ 4.00	\$ 17,556
328	11" Concrete Pavement	4,038	sy	\$ 55.00	\$ 222,078
428	6" Curb and Gutter	3,160	lf	\$ 7.00	\$ 22,120
528	4" Topsoil	3,687	sy	\$ 5.00	\$ 18,433
628	11' Concrete Sidewalk	17,380	sf	\$ 6.00	\$ 104,280
726	Auxiliary Lanes and Median Openings Allotment	317	sf	\$ 59.00	\$ 18,715
Paving Construction Cost Subtotal:					\$ 441,979
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	13,259
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	13,259
✓	Roadway Drainage	Standard Internal System	30%	\$	132,594
✓	Illumination		2%	\$	10,991
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	26,519
✓	Sewer	Minor Adjustments	4%	\$	17,679
✓	Establish Turf / Erosion Control		2%	\$	8,840
✓	Basic Landscaping		4%	\$	17,679
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 240,820
Paving and Allowance Subtotal:					\$ 682,799
Construction Contingency:					15% \$ 102,420
Construction Cost TOTAL:					\$ 786,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 786,000
Engineering/Survey/Testing:		20%	\$ 157,200
Mobilization		5%	\$ 39,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 157,200
Impact Fee Project Cost TOTAL:			\$ 1,140,000

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The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-35
Name:	Harmon (8)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	330' W of Bailey Boswell to Bailey Boswell		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	330		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	953	cy	\$ 17.00	\$ 16,207
228	6" Lime Stabilization (with Lime @ 32#/sy)	1,833	sy	\$ 4.00	\$ 7,333
328	11" Concrete Pavement	1,687	sy	\$ 55.00	\$ 92,767
428	6" Curb and Gutter	1,320	lf	\$ 7.00	\$ 9,240
528	4" Topsoil	1,540	sy	\$ 5.00	\$ 7,700
628	11' Concrete Sidewalk	7,260	sf	\$ 6.00	\$ 43,560
726	Auxiliary Lanes and Median Openings Allotment	133	sf	\$ 59.00	\$ 7,818
Paving Construction Cost Subtotal:					\$ 184,624
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	5,539
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	5,539
✓	Roadway Drainage	Standard Internal System	30%	\$	55,387
✓	Illumination		2%	\$	4,591
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	11,077
✓	Sewer	Minor Adjustments	4%	\$	7,385
✓	Establish Turf / Erosion Control		2%	\$	3,692
✓	Basic Landscaping		4%	\$	7,385
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 100,596
Paving and Allowance Subtotal:					\$ 285,220
Construction Contingency:					15% \$ 42,783
Construction Cost TOTAL:					\$ 329,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 329,000
Engineering/Survey/Testing:		20%	\$ 65,800
Mobilization		5%	\$ 16,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 65,800
Impact Fee Project Cost TOTAL:			\$ 477,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.  
The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-36
Name:	Bailey Boswell (5)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	Harmon to Horseman		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	4,300		
Service Area(s):	C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	14,094	cy	\$ 17.00	\$ 239,606
233	6" Lime Stabilization (with Lime @ 32#/sy)	27,711	sy	\$ 4.00	\$ 110,844
333	11" Concrete Pavement	26,756	sy	\$ 55.00	\$ 1,471,556
433	6" Curb and Gutter	8,600	lf	\$ 7.00	\$ 60,200
533	4" Topsoil	16,244	sy	\$ 5.00	\$ 81,222
633	10' Concrete Sidewalk	86,000	sf	\$ 6.00	\$ 516,000
731	Auxiliary Lanes and Median Openings Allotment	733	sf	\$ 59.00	\$ 43,244
Paving Construction Cost Subtotal:					\$ 2,522,672
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	75,680
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	75,680
✓	Roadway Drainage	Standard Internal System	30%	\$	756,802
✓	Illumination		2%	\$	62,730
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	151,360
✓	Sewer	Minor Adjustments	4%	\$	100,907
✓	Establish Turf / Erosion Control		2%	\$	50,453
✓	Basic Landscaping		4%	\$	100,907
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,374,520
Paving and Allowance Subtotal:					\$ 3,897,192
Construction Contingency:					15% \$ 584,579
Construction Cost TOTAL:					\$ 4,482,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,482,000
Engineering/Survey/Testing:		20%	\$ 896,400
Mobilization		5%	\$ 224,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 896,400
Impact Fee Project Cost TOTAL:			\$ 6,499,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.  
The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**Appendix A - Service Area D**

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area D

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
A-15, D-1	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (1)	485' E of Lilybrook to N Caylor	Widening	50%	\$ 2,086,000	\$ 1,043,000
A-16, D-2	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (2)	N Caylor to 375' E of N Caylor	Widening	50%	\$ 504,000	\$ 252,000
A-17, D-3	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (3)	375' E of N Caylor to Park Vista	Previous	50%	\$ 5,241,058	\$ 2,620,529
A-18, D-4	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (4)	Park Vista to 355' E of Park Vista	Previous	50%	\$ 1,703,344	\$ 851,672
A-19, D-5	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Timberland (5)	355' E of Park Vista to 425' E of Harvest Oaks	Widening	50%	\$ 1,694,000	\$ 847,000
A-20, D-6	NCO-L2-T0-NTMS-P0-BOP (110)	Timberland (6)	425' E of Harvest Oaks to US 377	New	50%	\$ 1,447,000	\$ 723,500
D-7	NCO-L1-T0-TWLT-P0-BOP (80)	Keller Hicks (1)	Old Denton to 600' W of Ridgeview	Widening	100%	\$ 5,530,000	\$ 5,530,000
D-8	NCO (E)	Keller Hicks (2)	600' W of Ridgeview to Alta Vista	Previous	100%	\$ 1,071,577	\$ 1,071,577
D-9	CCO (E)	Keller Hicks (3)	Alta Vista to Park Vista	Previous	100%	\$ 5,763,683	\$ 5,763,683
D-10	CCO-L1-T0-TWLT-P0-BOP (80)	Keller Hicks (4)	Park Vista to Katy	Widening	100%	\$ 5,577,000	\$ 5,577,000
D-11	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (5)	Golden Triangle to Old Denton	Median	100%	\$ 2,042,000	\$ 2,042,000
D-12	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (6)	Old Denton to Beach	Median	100%	\$ 4,259,000	\$ 4,259,000
D-13	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (7)	Beach to Park Vista	Median	100%	\$ 4,078,000	\$ 4,078,000
D-14	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (8)	Park Vista to 2,130' E of Park Vista	Median	100%	\$ 1,629,000	\$ 1,629,000
D-15	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Golden Triangle (9)	2,130' E of Park Vista to Katy	Median	100%	\$ 2,607,000	\$ 2,607,000
D-16	CCO-L2-T0-TWLT-P0-BOP (110)	Kroger	1,650' E of Ray White to US 377	Widening	100%	\$ 5,748,000	\$ 5,748,000
D-17	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	N. Tarrant (3)	IH-35 W to Riverside	Median	100%	\$ 1,194,000	\$ 1,194,000
D-18	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	N. Tarrant (4)	Riverside to Beach	Median	100%	\$ 1,880,000	\$ 1,880,000
D-19	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	N. Tarrant (5)	Beach to Park Vista	Median	100%	\$ 1,920,000	\$ 1,920,000
D-20	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	N. Tarrant (6)	Park Vista to US 377	Median	100%	\$ 1,485,000	\$ 1,485,000
D-21	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Summerfields	Riverside to Cannonwood	Widening	100%	\$ 651,000	\$ 651,000
D-22	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (1)	SH 170 EBFR to 180' N of Hidden Valley	Widening	100%	\$ 699,000	\$ 699,000
D-23	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (2)	180' N of Hidden Valley to 135' S of San Fernando	Widening	100%	\$ 628,000	\$ 628,000
D-24	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (3)	135' S of San Fernando to 325' N of Sawtimber	Widening	100%	\$ 628,000	\$ 628,000
D-25	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (4)	Keller Hicks to 800' N of Golden Triangle	Widening	100%	\$ 1,172,000	\$ 1,172,000
D-26	CCO-L2-T0-NTMS-P0-BOP (110)	Riverside (5)	800' N of Golden Triangle to Golden Triangle	Widening	100%	\$ 1,100,000	\$ 1,100,000
D-27	NCO-L2-T0-NTMS-P0-BOP (110)	Riverside (6)	Prairie Vista to Shiver	Previous	100%	\$ 1,378,007	\$ 1,378,007
D-28	NCO-L2-T0-NTMS-P0-BOP (110)	Riverside (7)	Shiver to N. Tarrant	Widening	100%	\$ 3,710,000	\$ 3,710,000
D-29	NCO-L2-T0-TWLT-P0-BOP (110)	Riverside (8)	N. Tarrant to Thompson	Widening	100%	\$ 2,691,000	\$ 2,691,000
D-30	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (9)	Thompson to Summerfields	Widening	100%	\$ 2,307,628	\$ 2,307,628
D-31	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Riverside (10)	Summerfields to Old Denton Rd	Widening	100%	\$ 1,126,000	\$ 1,126,000
A-29, D-32	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Beach (7)	SH 170 EBFR to 2,045' S of SH 170 EBFR	New	50%	\$ 3,415,000	\$ 1,707,500
A-30, D-33	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Beach (8)	410' N of Saratoga Downs to Timberland	Median	50%	\$ 1,285,000	\$ 642,500
D-34	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (9)	Timberland to Keller Hicks	Previous	100%	\$ 1,684,794	\$ 1,684,794
D-35	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (10)	Keller Hicks to Golden Triangle	Previous	100%	\$ 4,539,651	\$ 4,539,651
D-36	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (11)	Vista Meadows to Heritage Trace	Previous	100%	\$ 6,344,578	\$ 6,344,578
D-37	NCO-L2-T0-NTMS-P0-BLS (110)	Beach (12)	Heritage Trace to 155' S of Springview Ln	Previous	100%	\$ 2,346,625	\$ 2,346,625
D-38	NCO-L2-T0-NTMS-P0-BOP (110)	Park Vista (4)	Timberland to Caylor	Previous	100%	\$ 4,323,873	\$ 4,323,873
D-39	NCO-L2-T0-TWLT-P0-BOP (110)	Park Vista (5)	Keller Hicks to Golden Triangle	New	100%	\$ 457,671	\$ 457,671
D-40	NCO-L2-T0-TWLT-P0-BOP (110)	Park Vista (6)	Golden Triangle to Ray White	New	100%	\$ 6,089,000	\$ 6,089,000
D-41	NCO-L2-T0-TWLT-P0-BOP (110)	Park Vista (7)	Wyndbrook to Mirage	Widening	100%	\$ 5,752,000	\$ 5,752,000
D-42	NCO (E)	Park Vista (8)	Shiver to N. Tarrant	Previous	100%	\$ 2,059,673	\$ 2,059,673
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Beach	Timberland	Retrofit	75%	\$ 640,000	\$ 480,000
	Turn Lane Improvements	Beach	Keller Hicks	Retrofit	100%	\$ 770,000	\$ 770,000
	Turn Lane Improvements	Beach	N. Tarrant	Retrofit	100%	\$ 705,000	\$ 705,000
	Turn Lane Improvements	Beach	Basswood	Retrofit	50%	\$ 590,000	\$ 295,000
	Turn Lane Improvements	US 377	N. Tarrant	Retrofit	50%	\$ 360,000	\$ 180,000
	Turn Lane Improvements	US 377	Basswood	Retrofit	25%	\$ 475,000	\$ 118,750
	Turn Lane Improvements	US 377	Timberland	Rebuild	25%	\$ 200,000	\$ 50,000
	Roundabout	Riverside	Timberland	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Riverside	Golden Triangle	Rebuild	100%	\$ 300,000	\$ 300,000
	Roundabout	Park Vista	Keller Hicks	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	Park Vista	Golden Triangle	Rebuild	100%	\$ 800,000	\$ 800,000
	Turn Lane Improvements	Park Vista	Heritage Trace	Retrofit	100%	\$ 295,000	\$ 295,000
	Turn Lane Improvements	Park Vista	N. Tarrant	Retrofit	100%	\$ 705,000	\$ 705,000
	Turn Lane Improvements	Park Vista	Basswood	Retrofit	50%	\$ 460,000	\$ 230,000
	Turn Lane Improvements	Riverside	N. Tarrant	Rebuild	100%	\$ 800,000	\$ 800,000
	Roundabout	Riverside	Summerfields	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	Riverside	Basswood	Retrofit	50%	\$ 820,000	\$ 410,000

**NOTES:**  
1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.  
2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based on further design level evaluation.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-15, D-1
Name:	Timberland (1)	<b>This project consists of the reconstruction of the existing gravel facility as a four-lane divided neighborhood connector.</b>	
Limits:	485' E of Lilybrook to N Caylor		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,555		
Service Area(s):	A, D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	4,492	cy	\$ 17.00	\$ 76,368
230	6" Lime Stabilization (with Lime @ 32#/sy)	8,639	sy	\$ 4.00	\$ 34,556
330	11" Concrete Pavement	7,948	sy	\$ 55.00	\$ 437,128
430	6" Curb and Gutter	6,220	lf	\$ 7.00	\$ 43,540
530	4" Topsoil	7,602	sy	\$ 5.00	\$ 38,011
630	10' Concrete Sidewalk	31,100	sf	\$ 6.00	\$ 186,600
728	Auxiliary Lanes and Median Openings Allotment	624	sf	\$ 59.00	\$ 36,837
Paving Construction Cost Subtotal:					\$ 853,039
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	25,591
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	25,591
✓	Pavement Markings/Markers		3%	\$	25,591
✓	Roadway Drainage	Standard Internal System	30%	\$	255,912
✓	Illumination		2%	\$	21,212
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	51,182
✓	Sewer	Minor Adjustments	4%	\$	34,122
✓	Establish Turf / Erosion Control		2%	\$	17,061
✓	Basic Landscaping		4%	\$	34,122
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 490,384
Paving and Allowance Subtotal:					\$ 1,343,423
Construction Contingency:					15% \$ 201,513
Construction Cost TOTAL:					\$ 1,545,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,545,000
Engineering/Survey/Testing:		20%	\$ 309,000
Mobilization		5%	\$ 77,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 154,500
Impact Fee Project Cost TOTAL:			\$ 2,086,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-16, D-2
Name:	Timberland (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:	N Caylor to 375' E of N Caylor		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	375		
Service Area(s):	A, D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	1,083	cy	\$ 17.00	\$ 18,417
230	6" Lime Stabilization (with Lime @ 32#/sy)	2,083	sy	\$ 4.00	\$ 8,333
330	11" Concrete Pavement	1,917	sy	\$ 55.00	\$ 105,417
430	6" Curb and Gutter	1,500	lf	\$ 7.00	\$ 10,500
530	4" Topsoil	1,833	sy	\$ 5.00	\$ 9,167
630	10' Concrete Sidewalk	7,500	sf	\$ 6.00	\$ 45,000
728	Auxiliary Lanes and Median Openings Allotment	151	sf	\$ 59.00	\$ 8,884
Paving Construction Cost Subtotal:					\$ 205,717
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	6,172
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	6,172
✓	Pavement Markings/Markers		3%	\$	6,172
✓	Roadway Drainage	Standard Internal System	30%	\$	61,715
✓	Illumination		2%	\$	5,115
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	12,343
✓	Sewer	Minor Adjustments	4%	\$	8,229
✓	Establish Turf / Erosion Control		2%	\$	4,114
✓	Basic Landscaping		4%	\$	8,229
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 118,260
Paving and Allowance Subtotal:					\$ 323,977
Construction Contingency: 15%					\$ 48,596
Construction Cost TOTAL:					\$ 373,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 373,000
Engineering/Survey/Testing:		20%	\$ 74,600
Mobilization		5%	\$ 18,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 37,300
Impact Fee Project Cost TOTAL:			\$ 504,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	A-17, D-3
Name:	Timberland (3)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$13,102,646 overall to this project. This segment accounts for 40% (\$5,241,058) of the overall project.</b>		
Limits:	375' E of N Caylor to Park Vista			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,140			
Service Area(s):	A, D			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Developer Contribution Fund		\$ 4,635,796
Engineering/Survey/Testing:			\$ 93,274
Other			\$ (207,989)
ROW/Easement Acquisition:			\$ 719,978
Impact Fee Project Cost TOTAL:			\$ 5,241,058

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted contruction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	A-18, D-4
Name:	Timberland (4)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$13,102,646 overall to this project. This segment accounts for 13% (\$1,703,344) of the overall project.</b>		
Limits:	Park Vista to 355' E of Park Vista			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	355			
Service Area(s):	A, D			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:	Developer Contribution Fund		\$	1,506,634
Engineering/Survey/Testing:			\$	30,314
Other			\$	(67,596)
ROW/Easement Acquisition:			\$	233,993
Impact Fee Project Cost TOTAL:			\$	1,703,344

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 9/29/2017

Project Information:		Description:	Project No. A-19, D-5
Name:	Timberland (5)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided neighborhood connector.</b>	
Limits:	355' E of Park Vista to 425' E of Harvest Oaks		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,420		
Service Area(s):	A, D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	3,496	cy	\$ 17.00	\$ 59,424
231	6" Lime Stabilization (with Lime @ 32#/sy)	6,722	sy	\$ 4.00	\$ 26,889
331	11" Concrete Pavement	6,184	sy	\$ 55.00	\$ 340,144
431	6" Curb and Gutter	4,840	lf	\$ 7.00	\$ 33,880
531	4" Topsoil	5,916	sy	\$ 5.00	\$ 29,578
631	10' Concrete Sidewalk	24,200	sf	\$ 6.00	\$ 145,200
729	Auxiliary Lanes and Median Openings Allotment	972	sf	\$ 59.00	\$ 57,328
Paving Construction Cost Subtotal:					\$ 692,444
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	20,773
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	20,773
✓	Pavement Markings/Markers		3%	\$	20,773
✓	Roadway Drainage	Standard Internal System	30%	\$	207,733
✓	Illumination		2%	\$	17,219
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	41,547
✓	Sewer	Minor Adjustments	4%	\$	27,698
✓	Establish Turf / Erosion Control		2%	\$	13,849
✓	Basic Landscaping		4%	\$	27,698
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 398,063
Paving and Allowance Subtotal:					\$ 1,090,507
Construction Contingency:					15% \$ 163,576
Construction Cost TOTAL:					\$ 1,255,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,255,000
Engineering/Survey/Testing:		20%	\$ 251,000
Mobilization		5%	\$ 62,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 125,500
Impact Fee Project Cost TOTAL:			\$ 1,694,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 9/29/2017

Project Information:		Description:	Project No. A-20, D-6
Name:	Timberland (6)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	425' E of Harvest Oaks to US 377		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (If):	510		
Service Area(s):	A, D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	1,473	cy	\$ 17.00	\$ 25,047
230	6" Lime Stabilization (with Lime @ 32#/sy)	2,833	sy	\$ 4.00	\$ 11,333
330	11" Concrete Pavement	2,607	sy	\$ 55.00	\$ 143,367
430	6" Curb and Gutter	2,040	lf	\$ 7.00	\$ 14,280
530	4" Topsoil	2,493	sy	\$ 5.00	\$ 12,467
630	10' Concrete Sidewalk	10,200	sf	\$ 6.00	\$ 61,200
728	Auxiliary Lanes and Median Openings Allotment	205	sf	\$ 59.00	\$ 12,082
Paving Construction Cost Subtotal:					\$ 279,775
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	8,393
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	8,393
✓	Roadway Drainage		30%	\$	83,932
✓	Illumination		2%	\$	6,957
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	16,786
✓	Sewer	Minor Adjustments	4%	\$	11,191
✓	Establish Turf / Erosion Control		2%	\$	5,595
✓	Basic Landscaping		4%	\$	11,191
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
Allowance Subtotal:					\$ 652,440
Paving and Allowance Subtotal:					\$ 932,215
Construction Contingency: 15%					\$ 64,832
Construction Cost TOTAL:					\$ 998,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 998,000
Engineering/Survey/Testing:		20%	\$ 199,600
Mobilization		5%	\$ 49,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 199,600
Impact Fee Project Cost TOTAL:			\$ 1,447,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	D-7
Name:	Keller Hicks (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:	Old Denton to 600' W of Ridgeview			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	5,420			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	11,141	cy	\$ 17.00	\$ 189,399
241	6" Lime Stabilization (with Lime @ 32#/sy)	21,680	sy	\$ 4.00	\$ 86,720
341	11" Concrete Pavement	20,476	sy	\$ 55.00	\$ 1,126,156
441	6" Curb and Gutter	10,840	lf	\$ 7.00	\$ 75,880
541	4" Topsoil	15,658	sy	\$ 5.00	\$ 78,289
641	10' Concrete Sidewalk	108,400	sf	\$ 6.00	\$ 650,400
739	Auxiliary Lanes and Median Openings Allotment	924	sf	\$ 59.00	\$ 54,508
Paving Construction Cost Subtotal:					\$ 2,261,351
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	67,841
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	67,841
✓	Pavement Markings/Markers		3%	\$	67,841
✓	Roadway Drainage	Standard Internal System	30%	\$	678,405
✓	Illumination		2%	\$	56,232
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	135,681
✓	Sewer	Minor Adjustments	4%	\$	90,454
✓	Establish Turf / Erosion Control		2%	\$	45,227
✓	Basic Landscaping		4%	\$	90,454
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,299,975
Paving and Allowance Subtotal:					\$ 3,561,327
Construction Contingency: 15%					\$ 534,199
Construction Cost TOTAL:					\$ 4,096,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,096,000
Engineering/Survey/Testing:		20%	\$ 819,200
Mobilization		5%	\$ 204,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 409,600
Impact Fee Project Cost TOTAL:			\$ 5,530,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated: 9/29/2017

Project Information:		Description:	Project No.	D-8
Name:	Keller Hicks (2)	<b>This project consisted of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector. The City contributed \$1,071,577 overall to this project.</b>		
Limits:	600' W of Ridgeview to Alta Vista			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	2,330			
Service Area(s):	D			

**Roadway Construction Cost Projection**

**Impact Fee Project Cost Summary**

<b>Impact Fee Project Cost TOTAL:</b>		<b>\$ 1,071,577</b>
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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	D-9
Name:	Keller Hicks (3)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane undivided commercial connector. The City contributed \$5,763,683 overall to this project.</b>		
Limits:	Alta Vista to Park Vista			
Impact Fee Class:	CCO (E)			
Ultimate Class:	Established Commercial Connector			
Length (lf):	2,730			
Service Area(s):	D			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 4,405,035
Engineering/Survey/Testing:			\$ 791,810
ROW/Easement Acquisition:	Existing Alignment		\$ 566,837
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 5,763,683</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-10
Name:	Keller Hicks (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided commercial connector.</b>	
Limits:	Park Vista to Katy		
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Commercial Connector		
Length (lf):	5,290		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	11,462	cy	\$ 17.00	\$ 194,848
239	6" Lime Stabilization (with Lime @ 32#/sy)	22,336	sy	\$ 4.00	\$ 89,342
339	11" Concrete Pavement	21,160	sy	\$ 55.00	\$ 1,163,800
439	6" Curb and Gutter	10,580	lf	\$ 7.00	\$ 74,060
539	4" Topsoil	14,107	sy	\$ 5.00	\$ 70,533
639	10' Concrete Sidewalk	105,800	sf	\$ 6.00	\$ 634,800
737	Auxiliary Lanes and Median Openings Allotment	902	sf	\$ 59.00	\$ 53,201
Paving Construction Cost Subtotal:					\$ 2,280,584
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	68,418
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	68,418
✓	Pavement Markings/Markers		3%	\$	68,418
✓	Roadway Drainage	Standard Internal System	30%	\$	684,175
✓	Illumination		2%	\$	56,711
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	136,835
✓	Sewer	Minor Adjustments	4%	\$	91,223
✓	Establish Turf / Erosion Control		2%	\$	45,612
✓	Basic Landscaping		4%	\$	91,223
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,311,032
Paving and Allowance Subtotal:					\$ 3,591,616
Construction Contingency: 15%					\$ 538,742
Construction Cost TOTAL:					\$ 4,131,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,131,000
Engineering/Survey/Testing:		20%	\$ 826,200
Mobilization		5%	\$ 206,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 413,100
Impact Fee Project Cost TOTAL:			\$ 5,577,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	D-11
Name:	Golden Triangle (5)	<b>This project consists of the construction of the median lanes to complete the six-lane divided commercial connector. The City previously contributed \$7,943,914 to the construction of the southern lanes. This segment accounts for 14% (\$1,112,148) of the previous contribution.</b>		
Limits:	IH-35 W to Old Denton			
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	2,625			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	4,375	cy	\$ 17.00	\$ 74,375
205	6" Lime Stabilization (with Lime @ 32#/sy)	7,292	sy	\$ 4.00	\$ 29,167
305	11" Concrete Pavement	6,708	sy	\$ 55.00	\$ 368,958
405	6" Curb and Gutter	5,250	lf	\$ 7.00	\$ 36,750
505	4" Topsoil	0	sy	\$ 5.00	\$ -
605	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
703	Auxiliary Lanes and Median Openings Allotment	895	sf	\$ 59.00	\$ 52,798
Paving Construction Cost Subtotal:					\$ 562,048
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,861
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	16,861
✓	Pavement Markings/Markers		3%	\$	16,861
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	11,241
✓	Basic Landscaping		4%	\$	22,482
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 84,307
Paving and Allowance Subtotal:				\$	646,356
Construction Contingency:				15%	\$ 96,953
Construction Cost TOTAL:				\$	744,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 744,000
Engineering/Survey/Testing:		20%	\$ 148,800
Mobilization		5%	\$ 37,200
Previous City contribution	Street Improvements Fund - 39403		\$ 1,112,148
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 2,042,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	D-12
Name:	Golden Triangle (6)	<b>This project consists of the construction of the median lanes to complete the six-lane divided commercial connector. The City previously contributed \$7,943,914 to the construction of the southern lanes. This segment accounts for 29% (\$2,303,735) of the previous contribution.</b>		
Limits:	Old Denton to Beach			
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	5,520			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	9,200	cy	\$ 17.00	\$ 156,400
205	6" Lime Stabilization (with Lime @ 32#/sy)	15,333	sy	\$ 4.00	\$ 61,333
305	11" Concrete Pavement	14,107	sy	\$ 55.00	\$ 775,867
405	6" Curb and Gutter	11,040	lf	\$ 7.00	\$ 77,280
505	4" Topsoil	0	sy	\$ 5.00	\$ -
605	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
703	Auxiliary Lanes and Median Openings Allotment	1,882	sf	\$ 59.00	\$ 111,027
Paving Construction Cost Subtotal:					\$ 1,181,907
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	35,457
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	35,457
✓	Pavement Markings/Markers		3%	\$	35,457
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	23,638
✓	Basic Landscaping		4%	\$	47,276
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 177,286
Paving and Allowance Subtotal:					\$ 1,359,193
Construction Contingency: 15%					\$ 203,879
Construction Cost TOTAL:					\$ 1,564,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,564,000
Engineering/Survey/Testing:		20%	\$ 312,800
Mobilization		5%	\$ 78,200
Previous City contribution	Street Improvements Fund - 39403		\$ 2,303,735
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 4,259,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-13
Name:	Golden Triangle (7)	<b>This project consists of the construction of the median lanes to complete the six-lane divided commercial connector. The City previously contributed \$7,943,914 to the construction of the southern lanes. This segment accounts for 28% (\$2,224,296) of the previous contribution.</b>	
Limits:	Beach to Park Vista		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	5,235		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	8,725	cy	\$ 17.00	\$ 148,325
205	6" Lime Stabilization (with Lime @ 32#/sy)	14,542	sy	\$ 4.00	\$ 58,167
305	11" Concrete Pavement	13,378	sy	\$ 55.00	\$ 735,808
405	6" Curb and Gutter	10,470	lf	\$ 7.00	\$ 73,290
505	4" Topsoil	0	sy	\$ 5.00	\$ -
605	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
703	Auxiliary Lanes and Median Openings Allotment	1,785	sf	\$ 59.00	\$ 105,295
Paving Construction Cost Subtotal:					\$ 1,120,885
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	33,627
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	33,627
✓	Pavement Markings/Markers		3%	\$	33,627
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	22,418
✓	Basic Landscaping		4%	\$	44,835
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 168,133
Paving and Allowance Subtotal:					\$ 1,289,018
Construction Contingency: 15%					\$ 193,353
Construction Cost TOTAL:					\$ 1,483,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,483,000
Engineering/Survey/Testing:		20%	\$ 296,600
Mobilization		5%	\$ 74,150
Previous City contribution	Street Improvements Fund - 39403		\$ 2,224,296
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 4,078,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>D-14</b>
<b>Name:</b>	Golden Triangle (8)	<b>This project consists of the construction of the median lanes to complete the six-lane divided commercial connector. The City previously contributed \$7,943,914 to the construction of the southern lanes. This segment accounts for 11% (\$873,831) of the previous contribution.</b>	
<b>Limits:</b>	Park Vista to 2,130' E of Park Vista		
<b>Impact Fee Class:</b>	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)		
<b>Ultimate Class:</b>	6 Lane Divided Commercial Connector		
<b>Length (lf):</b>	2,130		
<b>Service Area(s):</b>	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	3,550	cy	\$ 17.00	\$ 60,350
205	6" Lime Stabilization (with Lime @ 32#/sy)	5,917	sy	\$ 4.00	\$ 23,667
305	11" Concrete Pavement	5,443	sy	\$ 55.00	\$ 299,383
405	6" Curb and Gutter	4,260	lf	\$ 7.00	\$ 29,820
505	4" Topsoil	0	sy	\$ 5.00	\$ -
605	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
703	Auxiliary Lanes and Median Openings Allotment	726	sf	\$ 59.00	\$ 42,842
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 456,062</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	13,682
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	13,682
✓	Pavement Markings/Markers		3%	\$	13,682
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	9,121
✓	Basic Landscaping		4%	\$	18,242
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 68,409</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 524,471</b>
<b>Construction Contingency:</b>					<b>15% \$ 78,671</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 604,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 604,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 120,800
<b>Mobilization</b>		5%	\$ 30,200
<b>Previous City contribution</b>	Street Improvements Fund - 39403		\$ 873,831
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	No ROW Acquisition Costs included	0%	\$ -
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,629,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-15
Name:	Golden Triangle (9)	<b>This project consists of the construction of the median lanes to complete the six-lane divided commercial connector. The City previously contributed \$7,943,914 to the construction of the southern lanes. This segment accounts for 18% (\$1,429,905) of the previous contribution.</b>	
Limits:	2,130' E of Park Vista to Katy		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	3,325		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	5,542	cy	\$ 17.00	\$ 94,208
205	6" Lime Stabilization (with Lime @ 32#/sy)	9,236	sy	\$ 4.00	\$ 36,944
305	11" Concrete Pavement	8,497	sy	\$ 55.00	\$ 467,347
405	6" Curb and Gutter	6,650	lf	\$ 7.00	\$ 46,550
505	4" Topsoil	0	sy	\$ 5.00	\$ -
605	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
703	Auxiliary Lanes and Median Openings Allotment	1,134	sf	\$ 59.00	\$ 66,878
Paving Construction Cost Subtotal:					\$ 711,928
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	21,358
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	21,358
✓	Pavement Markings/Markers		3%	\$	21,358
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	14,239
✓	Basic Landscaping		4%	\$	28,477
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 106,789
Paving and Allowance Subtotal:					\$ 818,717
Construction Contingency:					15% \$ 122,808
Construction Cost TOTAL:					\$ 942,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 942,000
Engineering/Survey/Testing:		20%	\$ 188,400
Mobilization		5%	\$ 47,100
Previous City contribution	Street Improvements Fund - 39403		\$ 1,429,905
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 2,607,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-16
Name:	Kroger	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector.</b>	
Limits:	1,650' E of Ray White to US 377		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	3,455		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	11,709	cy	\$ 17.00	\$ 199,046
225	6" Lime Stabilization (with Lime @ 32#/sy)	23,033	sy	\$ 4.00	\$ 92,133
325	11" Concrete Pavement	22,266	sy	\$ 55.00	\$ 1,224,606
425	6" Curb and Gutter	6,910	lf	\$ 7.00	\$ 48,370
525	4" Topsoil	12,284	sy	\$ 5.00	\$ 61,422
625	10' Concrete Sidewalk	69,100	sf	\$ 6.00	\$ 414,600
723	Auxiliary Lanes and Median Openings Allotment	589	sf	\$ 59.00	\$ 34,746
Paving Construction Cost Subtotal:					\$ 2,074,924
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	62,248
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	62,248
✓	Pavement Markings/Markers		3%	\$	62,248
✓	Roadway Drainage	Standard Internal System	30%	\$	622,477
✓	Illumination		2%	\$	51,596
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	124,495
✓	Sewer	Minor Adjustments	4%	\$	82,997
✓	Establish Turf / Erosion Control		2%	\$	41,498
✓	Basic Landscaping		4%	\$	82,997
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
Allowance Subtotal:					\$ 1,692,805
Paving and Allowance Subtotal:					\$ 3,767,728
Construction Contingency: 15%					\$ 490,159
Construction Cost TOTAL:					\$ 4,258,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,258,000
Engineering/Survey/Testing:		20%	\$ 851,600
Mobilization		5%	\$ 212,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 425,800
Impact Fee Project Cost TOTAL:			\$ 5,748,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-17
Name:	N. Tarrant (3)	<b>This project consists of the construction of the median lanes to complete the six-lane divided commercial connector.</b>	
Limits:	IH-35 W to Riverside		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	3,430		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	4,954	cy	\$ 17.00	\$ 84,226
202	6" Lime Stabilization (with Lime @ 32#/sy)	9,528	sy	\$ 4.00	\$ 38,111
302	11" Concrete Pavement	8,766	sy	\$ 55.00	\$ 482,106
402	6" Curb and Gutter	6,860	lf	\$ 7.00	\$ 48,020
502	4" Topsoil	0	sy	\$ 5.00	\$ -
602	6' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
701	Auxiliary Lanes and Median Openings Allotment	1,169	sf	\$ 59.00	\$ 68,990
Paving Construction Cost Subtotal:					\$ 721,452
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	21,644
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	21,644
✓	Pavement Markings/Markers		3%	\$	21,644
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	14,429
✓	Basic Landscaping		4%	\$	28,858
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 108,218
Paving and Allowance Subtotal:					\$ 829,670
Construction Contingency: 15%					\$ 124,450
Construction Cost TOTAL:					\$ 955,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 955,000
Engineering/Survey/Testing:		20%	\$ 191,000
Mobilization		5%	\$ 47,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,194,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-18
Name:	N. Tarrant (4)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	Riverside to Beach		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	5,405		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
110	Unclassified Street Excavation	7,807	cy	\$ 17.00	\$ 132,723
210	6" Lime Stabilization (with Lime @ 32#/sy)	15,014	sy	\$ 4.00	\$ 60,056
310	11" Concrete Pavement	13,813	sy	\$ 55.00	\$ 759,703
410	6" Curb and Gutter	10,810	lf	\$ 7.00	\$ 75,670
510	4" Topsoil	0	sy	\$ 5.00	\$ -
610	11' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
708	Auxiliary Lanes and Median Openings Allotment	1,843	sf	\$ 59.00	\$ 108,714
Paving Construction Cost Subtotal:					\$ 1,136,865
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	34,106
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	34,106
✓	Pavement Markings/Markers		3%	\$	34,106
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	22,737
✓	Basic Landscaping		4%	\$	45,475
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 170,530
Paving and Allowance Subtotal:					\$ 1,307,395
Construction Contingency: 15%					\$ 196,109
Construction Cost TOTAL:					\$ 1,504,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,504,000
Engineering/Survey/Testing:		20%	\$ 300,800
Mobilization		5%	\$ 75,200
Previous City contribution			\$ -
Other			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,880,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-19
Name:	N. Tarrant (5)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	Beach to Park Vista		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	5,520		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
110	Unclassified Street Excavation	7,973	cy	\$ 17.00	\$ 135,547
210	6" Lime Stabilization (with Lime @ 32#/sy)	15,333	sy	\$ 4.00	\$ 61,333
310	11" Concrete Pavement	14,107	sy	\$ 55.00	\$ 775,867
410	6" Curb and Gutter	11,040	lf	\$ 7.00	\$ 77,280
510	4" Topsoil	0	sy	\$ 5.00	\$ -
610	11' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
708	Auxiliary Lanes and Median Openings Allotment	1,882	sf	\$ 59.00	\$ 111,027
Paving Construction Cost Subtotal:					\$ 1,161,054
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	34,832
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	34,832
✓	Pavement Markings/Markers		3%	\$	34,832
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	23,221
✓	Basic Landscaping		4%	\$	46,442
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 174,158
Paving and Allowance Subtotal:					\$ 1,335,212
Construction Contingency:					15% \$ 200,282
Construction Cost TOTAL:					\$ 1,536,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,536,000
Engineering/Survey/Testing:		20%	\$ 307,200
Mobilization		5%	\$ 76,800
Previous City contribution			\$ -
Other			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,920,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	D-20
Name:	N. Tarrant (6)	<b>This project consists of the construction of the median lanes to complete the six-lane divided commercial connector.</b>		
Limits:	Park Vista to US 377			
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	4,270			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	6,168	cy	\$ 17.00	\$ 104,852
202	6" Lime Stabilization (with Lime @ 32#/sy)	11,861	sy	\$ 4.00	\$ 47,444
302	11" Concrete Pavement	10,912	sy	\$ 55.00	\$ 600,172
402	6" Curb and Gutter	8,540	lf	\$ 7.00	\$ 59,780
502	4" Topsoil	0	sy	\$ 5.00	\$ -
602	6' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
701	Auxiliary Lanes and Median Openings Allotment	1,456	sf	\$ 59.00	\$ 85,885
Paving Construction Cost Subtotal:					\$ 898,134
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	26,944
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	26,944
✓	Pavement Markings/Markers		3%	\$	26,944
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	17,963
✓	Basic Landscaping		4%	\$	35,925
	Other:				
Allowance Subtotal:					\$ 134,720
Paving and Allowance Subtotal:					\$ 1,032,854
Construction Contingency:					15% \$ 154,928
Construction Cost TOTAL:					\$ 1,188,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,188,000
Engineering/Survey/Testing:		20%	\$ 237,600
Mobilization		5%	\$ 59,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,485,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	D-21
Name:	Summerfields	<b>This project consists of the construction of the northern lanes to complete the four-lane divided neighborhood connector.</b>		
Limits:	Riverside to Cannonwood			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	930			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	1,343	cy	\$ 17.00	\$ 22,837
231	6" Lime Stabilization (with Lime @ 32#/sy)	2,583	sy	\$ 4.00	\$ 10,333
331	11" Concrete Pavement	2,377	sy	\$ 55.00	\$ 130,717
431	6" Curb and Gutter	1,860	lf	\$ 7.00	\$ 13,020
531	4" Topsoil	2,273	sy	\$ 5.00	\$ 11,367
631	10' Concrete Sidewalk	9,300	sf	\$ 6.00	\$ 55,800
729	Auxiliary Lanes and Median Openings Allotment	373	sf	\$ 59.00	\$ 22,031
Paving Construction Cost Subtotal:					\$ 266,104
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	7,983
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	7,983
✓	Pavement Markings/Markers		3%	\$	7,983
✓	Roadway Drainage	Standard Internal System	30%	\$	79,831
✓	Illumination		2%	\$	6,617
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	15,966
✓	Sewer	Minor Adjustments	4%	\$	10,644
✓	Establish Turf / Erosion Control		2%	\$	5,322
✓	Basic Landscaping		4%	\$	10,644
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 152,975
Paving and Allowance Subtotal:					\$ 419,079
Construction Contingency:					15% \$ 62,862
Construction Cost TOTAL:					\$ 482,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 482,000
Engineering/Survey/Testing:		20%	\$ 96,400
Mobilization		5%	\$ 24,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 48,200
Impact Fee Project Cost TOTAL:			\$ 651,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	D-22
Name:	Riverside (1)	<b>This project consists of the reconstruction of the existing asphalt western lanes to complete the four-lane divided commercial connector.</b>		
Limits:	SH 170 EBFR to 180' N of Hidden Valley			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	975			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	1,463	cy	\$ 17.00	\$ 24,863
224	6" Lime Stabilization (with Lime @ 32#/sy)	2,817	sy	\$ 4.00	\$ 11,267
324	11" Concrete Pavement	2,600	sy	\$ 55.00	\$ 143,000
424	6" Curb and Gutter	1,950	lf	\$ 7.00	\$ 13,650
524	4" Topsoil	2,275	sy	\$ 5.00	\$ 11,375
624	10' Concrete Sidewalk	9,750	sf	\$ 6.00	\$ 58,500
722	Auxiliary Lanes and Median Openings Allotment	391	sf	\$ 59.00	\$ 23,097
Paving Construction Cost Subtotal:					\$ 285,751
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	8,573
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	8,573
✓	Pavement Markings/Markers		3%	\$	8,573
✓	Roadway Drainage	Standard Internal System	30%	\$	85,725
✓	Illumination		2%	\$	7,106
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	17,145
✓	Sewer	Minor Adjustments	4%	\$	11,430
✓	Establish Turf / Erosion Control		2%	\$	5,715
✓	Basic Landscaping		4%	\$	11,430
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 164,269
Paving and Allowance Subtotal:					\$ 450,020
Construction Contingency:					15% \$ 67,503
Construction Cost TOTAL:					\$ 518,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 518,000
Engineering/Survey/Testing:		20%	\$ 103,600
Mobilization		5%	\$ 25,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 51,800
Impact Fee Project Cost TOTAL:			\$ 699,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-23
Name:	Riverside (2)	<b>This project consists of the reconstruction of the existing asphalt western lanes to complete the four-lane divided commercial connector.</b>	
Limits:	180' N of Hidden Valley to 135' S of San Fernando		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	875		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	1,313	cy	\$ 17.00	\$ 22,313
224	6" Lime Stabilization (with Lime @ 32#/sy)	2,528	sy	\$ 4.00	\$ 10,111
324	11" Concrete Pavement	2,333	sy	\$ 55.00	\$ 128,333
424	6" Curb and Gutter	1,750	lf	\$ 7.00	\$ 12,250
524	4" Topsoil	2,042	sy	\$ 5.00	\$ 10,208
624	10' Concrete Sidewalk	8,750	sf	\$ 6.00	\$ 52,500
722	Auxiliary Lanes and Median Openings Allotment	351	sf	\$ 59.00	\$ 20,728
Paving Construction Cost Subtotal:					\$ 256,443
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	7,693
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	7,693
✓	Pavement Markings/Markers		3%	\$	7,693
✓	Roadway Drainage	Standard Internal System	30%	\$	76,933
✓	Illumination		2%	\$	6,377
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	15,387
✓	Sewer	Minor Adjustments	4%	\$	10,258
✓	Establish Turf / Erosion Control		2%	\$	5,129
✓	Basic Landscaping		4%	\$	10,258
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 147,421
Paving and Allowance Subtotal:					\$ 403,864
Construction Contingency: 15%					\$ 60,580
Construction Cost TOTAL:					\$ 465,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 465,000
Engineering/Survey/Testing:		20%	\$ 93,000
Mobilization		5%	\$ 23,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 46,500
Impact Fee Project Cost TOTAL:			\$ 628,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 9/29/2017

Project Information:		Description:	Project No.	D-24
Name:	Riverside (3)	<b>This project consists of the reconstruction of the existing asphalt western lanes to complete the four-lane divided commercial connector.</b>		
Limits:	135' S of San Fernando to 325' N of Sawtimber			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	875			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	1,313	cy	\$ 17.00	\$ 22,313
224	6" Lime Stabilization (with Lime @ 32#/sy)	2,528	sy	\$ 4.00	\$ 10,111
324	11" Concrete Pavement	2,333	sy	\$ 55.00	\$ 128,333
424	6" Curb and Gutter	1,750	lf	\$ 7.00	\$ 12,250
524	4" Topsoil	2,042	sy	\$ 5.00	\$ 10,208
624	10' Concrete Sidewalk	8,750	sf	\$ 6.00	\$ 52,500
722	Auxiliary Lanes and Median Openings Allotment	351	sf	\$ 59.00	\$ 20,728
Paving Construction Cost Subtotal:					\$ 256,443
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	7,693
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	7,693
✓	Pavement Markings/Markers		3%	\$	7,693
✓	Roadway Drainage	Standard Internal System	30%	\$	76,933
✓	Illumination		2%	\$	6,377
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	15,387
✓	Sewer	Minor Adjustments	4%	\$	10,258
✓	Establish Turf / Erosion Control		2%	\$	5,129
✓	Basic Landscaping		4%	\$	10,258
	Other:		\$0	\$	-
Allowance Subtotal:				\$	147,421
Paving and Allowance Subtotal:				\$	403,864
Construction Contingency:				15%	\$ 60,580
Construction Cost TOTAL:				\$	465,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 465,000
Engineering/Survey/Testing:		20%	\$ 93,000
Mobilization		5%	\$ 23,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 46,500
Impact Fee Project Cost TOTAL:			\$ 628,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	D-25
Name:	Riverside (4)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided commercial connector.</b>		
Limits:	Keller Hicks to 800' N of Golden Triangle			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,635			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	2,453	cy	\$ 17.00	\$ 41,693
224	6" Lime Stabilization (with Lime @ 32#/sy)	4,723	sy	\$ 4.00	\$ 18,893
324	11" Concrete Pavement	4,360	sy	\$ 55.00	\$ 239,800
424	6" Curb and Gutter	3,270	lf	\$ 7.00	\$ 22,890
524	4" Topsoil	3,815	sy	\$ 5.00	\$ 19,075
624	10' Concrete Sidewalk	16,350	sf	\$ 6.00	\$ 98,100
722	Auxiliary Lanes and Median Openings Allotment	656	sf	\$ 59.00	\$ 38,732
Paving Construction Cost Subtotal:					\$ 479,183
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	14,375
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	14,375
✓	Pavement Markings/Markers		3%	\$	14,375
✓	Roadway Drainage	Standard Internal System	30%	\$	143,755
✓	Illumination		2%	\$	11,916
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	28,751
✓	Sewer	Minor Adjustments	4%	\$	19,167
✓	Establish Turf / Erosion Control		2%	\$	9,584
✓	Basic Landscaping		4%	\$	19,167
	Other:		\$0	\$	-
Allowance Subtotal:				\$	275,466
Paving and Allowance Subtotal:				\$	754,649
Construction Contingency:				15%	\$ 113,197
Construction Cost TOTAL:				\$	868,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 868,000
Engineering/Survey/Testing:		20%	\$ 173,600
Mobilization		5%	\$ 43,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 86,800
Impact Fee Project Cost TOTAL:			\$ 1,172,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	D-26
Name:	Riverside (5)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector.</b>		
Limits:	800' N of Golden Triangle to Golden Triangle			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	800			
Service Area(s):	D			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	2,400	cy	\$ 17.00	\$ 40,800
223	6" Lime Stabilization (with Lime @ 32#/sy)	4,622	sy	\$ 4.00	\$ 18,489
323	11" Concrete Pavement	4,267	sy	\$ 55.00	\$ 234,667
423	6" Curb and Gutter	3,200	lf	\$ 7.00	\$ 22,400
523	4" Topsoil	3,733	sy	\$ 5.00	\$ 18,667
623	10' Concrete Sidewalk	16,000	sf	\$ 6.00	\$ 96,000
721	Auxiliary Lanes and Median Openings Allotment	321	sf	\$ 59.00	\$ 18,952
Paving Construction Cost Subtotal:					\$ 449,974
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	13,499
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	13,499
✓	Pavement Markings/Markers		3%	\$	13,499
✓	Roadway Drainage	Standard Internal System	30%	\$	134,992
✓	Illumination		2%	\$	11,189
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	26,998
✓	Sewer	Minor Adjustments	4%	\$	17,999
✓	Establish Turf / Erosion Control		2%	\$	8,999
✓	Basic Landscaping		4%	\$	17,999
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 258,675
Paving and Allowance Subtotal:					\$ 708,649
Construction Contingency:					15% \$ 106,297
Construction Cost TOTAL:					\$ 815,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 815,000
Engineering/Survey/Testing:		20%	\$ 163,000
Mobilization		5%	\$ 40,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 81,500
Impact Fee Project Cost TOTAL:			\$ 1,100,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	D-27
Name:	Riverside (6)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$1,387,007 of impact fee-eligible funds to this project.</b>		
Limits:	Prairie Vista to Shiver			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,425			
Service Area(s):	D			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 2,368,047
Engineering/Survey/Testing:			\$ 49,960
Previous City contribution	Transportation Impact Fees Legacy Fund		\$ (1,040,000)
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,378,007</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-28
Name:	Riverside (7)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:	Shiver to N. Tarrant		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,765		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,988	cy	\$ 17.00	\$ 135,792
230	6" Lime Stabilization (with Lime @ 32#/sy)	15,361	sy	\$ 4.00	\$ 61,444
330	11" Concrete Pavement	14,132	sy	\$ 55.00	\$ 777,272
430	6" Curb and Gutter	11,060	lf	\$ 7.00	\$ 77,420
530	4" Topsoil	13,518	sy	\$ 5.00	\$ 67,589
630	10' Concrete Sidewalk	55,300	sf	\$ 6.00	\$ 331,800
728	Auxiliary Lanes and Median Openings Allotment	1,110	sf	\$ 59.00	\$ 65,501
Paving Construction Cost Subtotal:					\$ 1,516,819
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	45,505
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	45,505
✓	Pavement Markings/Markers		3%	\$	45,505
✓	Roadway Drainage	Standard Internal System	30%	\$	455,046
✓	Illumination		2%	\$	37,718
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	91,009
✓	Sewer	Minor Adjustments	4%	\$	60,673
✓	Establish Turf / Erosion Control		2%	\$	30,336
✓	Basic Landscaping		4%	\$	60,673
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 871,969
Paving and Allowance Subtotal:					\$ 2,388,788
Construction Contingency: 15%					\$ 358,318
Construction Cost TOTAL:					\$ 2,748,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,748,000
Engineering/Survey/Testing:		20%	\$ 549,600
Mobilization		5%	\$ 137,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 274,800
Impact Fee Project Cost TOTAL:			\$ 3,710,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-29
Name:	Riverside (8)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
Limits:	N. Tarrant to Thompson		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	1,875		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	6,146	cy	\$ 17.00	\$ 104,479
233	6" Lime Stabilization (with Lime @ 32#/sy)	12,083	sy	\$ 4.00	\$ 48,333
333	11" Concrete Pavement	11,667	sy	\$ 55.00	\$ 641,667
433	6" Curb and Gutter	3,750	lf	\$ 7.00	\$ 26,250
533	4" Topsoil	7,083	sy	\$ 5.00	\$ 35,417
633	10' Concrete Sidewalk	37,500	sf	\$ 6.00	\$ 225,000
731	Auxiliary Lanes and Median Openings Allotment	320	sf	\$ 59.00	\$ 18,857
Paving Construction Cost Subtotal:					\$ 1,100,002
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	33,000
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	33,000
✓	Pavement Markings/Markers		3%	\$	33,000
✓	Roadway Drainage	Standard Internal System	30%	\$	330,001
✓	Illumination		2%	\$	27,353
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	66,000
✓	Sewer	Minor Adjustments	4%	\$	44,000
✓	Establish Turf / Erosion Control		2%	\$	22,000
✓	Basic Landscaping		4%	\$	44,000
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 632,355
Paving and Allowance Subtotal:					\$ 1,732,357
Construction Contingency:					15% \$ 259,854
Construction Cost TOTAL:					\$ 1,993,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,993,000
Engineering/Survey/Testing:		20%	\$ 398,600
Mobilization		5%	\$ 99,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 199,300
Impact Fee Project Cost TOTAL:			\$ 2,691,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-30
Name:	Riverside (9)	<b>This project consists of the construction of the western lanes to complete the four-lane divided neighborhood connector. The City previously contributed \$995,428 to building the eastern lanes.</b>	
Limits:	Thompson to Summerfields		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,875		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	2,708	cy	\$ 17.00	\$ 46,042
231	6" Lime Stabilization (with Lime @ 32#/sy)	5,208	sy	\$ 4.00	\$ 20,833
331	11" Concrete Pavement	4,792	sy	\$ 55.00	\$ 263,542
431	6" Curb and Gutter	3,750	lf	\$ 7.00	\$ 26,250
531	4" Topsoil	4,583	sy	\$ 5.00	\$ 22,917
631	10' Concrete Sidewalk	18,750	sf	\$ 6.00	\$ 112,500
729	Auxiliary Lanes and Median Openings Allotment	753	sf	\$ 59.00	\$ 44,418
Paving Construction Cost Subtotal:					\$ 536,501
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,095
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	16,095
✓	Pavement Markings/Markers		3%	\$	16,095
✓	Roadway Drainage	Standard Internal System	30%	\$	160,950
✓	Illumination		2%	\$	13,341
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	32,190
✓	Sewer	Minor Adjustments	4%	\$	21,460
✓	Establish Turf / Erosion Control		2%	\$	10,730
✓	Basic Landscaping		4%	\$	21,460
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 308,417
Paving and Allowance Subtotal:					\$ 844,917
Construction Contingency: 15%					\$ 126,738
Construction Cost TOTAL:					\$ 972,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 972,000
Engineering/Survey/Testing:		20%	\$ 194,400
Mobilization		5%	\$ 48,600
Previous City contribution	Street Improvements Fund - 39403		\$ 995,428
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 97,200
Impact Fee Project Cost TOTAL:			\$ 2,307,628

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-31
Name:	Riverside (10)	<b>This project consists of the construction of the western lanes to complete the four-lane divided neighborhood connector.</b>	
Limits:	Summerfields to Old Denton Rd		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,535		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	2,217	cy	\$ 17.00	\$ 37,693
231	6" Lime Stabilization (with Lime @ 32#/sy)	4,264	sy	\$ 4.00	\$ 17,056
331	11" Concrete Pavement	3,923	sy	\$ 55.00	\$ 215,753
431	6" Curb and Gutter	3,070	lf	\$ 7.00	\$ 21,490
531	4" Topsoil	3,752	sy	\$ 5.00	\$ 18,761
631	10' Concrete Sidewalk	15,350	sf	\$ 6.00	\$ 92,100
729	Auxiliary Lanes and Median Openings Allotment	616	sf	\$ 59.00	\$ 36,363
Paving Construction Cost Subtotal:					\$ 439,215
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	13,176
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	13,176
✓	Pavement Markings/Markers		3%	\$	13,176
✓	Roadway Drainage	Standard Internal System	30%	\$	131,765
✓	Illumination		2%	\$	10,922
✓	Special Drainage Structures	Minor Stream Crossing(s)	\$ 33,000	\$	33,000
✓	Water	Minor Adjustments	6%	\$	26,353
✓	Sewer	Minor Adjustments	4%	\$	17,569
✓	Establish Turf / Erosion Control		2%	\$	8,784
✓	Basic Landscaping		4%	\$	17,569
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 285,490
Paving and Allowance Subtotal:					\$ 724,706
Construction Contingency:					15% \$ 108,706
Construction Cost TOTAL:					\$ 834,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 834,000
Engineering/Survey/Testing:		20%	\$ 166,800
Mobilization		5%	\$ 41,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 83,400
Impact Fee Project Cost TOTAL:			\$ 1,126,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-29, D-32
Name:	Beach (7)	<b>This project consists of the construction of a new four-lane divided commercial connector with a wide median.</b>	
Limits:	SH 170 EBFR to 2,045' S of SH 170 EBFR		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (W)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	2,045		
Service Area(s):	D, A		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	10,225	cy	\$ 17.00	\$ 173,825
203	6" Lime Stabilization (with Lime @ 32#/sy)	14,997	sy	\$ 4.00	\$ 59,987
303	11" Concrete Pavement	14,088	sy	\$ 55.00	\$ 774,828
403	6" Curb and Gutter	8,180	lf	\$ 7.00	\$ 57,260
503	4" Topsoil	12,724	sy	\$ 5.00	\$ 63,622
603	6' Concrete Sidewalk	24,540	sf	\$ 6.00	\$ 147,240
701	Auxiliary Lanes and Median Openings Allotment	821	sf	\$ 59.00	\$ 48,445
Paving Construction Cost Subtotal:					\$ 1,325,206
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	39,756
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	39,756
✓	Roadway Drainage		30%	\$	397,562
✓	Illumination		2%	\$	32,953
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	79,512
✓	Sewer	Minor Adjustments	4%	\$	53,008
✓	Establish Turf / Erosion Control		2%	\$	26,504
✓	Basic Landscaping		4%	\$	53,008
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 722,061
Paving and Allowance Subtotal:					\$ 2,047,267
Construction Contingency:					15% \$ 307,090
Construction Cost TOTAL:					\$ 2,355,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,355,000
Engineering/Survey/Testing:		20%	\$ 471,000
Mobilization		5%	\$ 117,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 471,000
Impact Fee Project Cost TOTAL:			\$ 3,415,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. A-30, D-33
Name:	Beach (8)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	410' N of Saratoga Downs to Timberland		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	3,695		
Service Area(s):	D, A		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
110	Unclassified Street Excavation	5,337	cy	\$ 17.00	\$ 90,733
210	6" Lime Stabilization (with Lime @ 32#/sy)	10,264	sy	\$ 4.00	\$ 41,056
310	11" Concrete Pavement	9,443	sy	\$ 55.00	\$ 519,353
410	6" Curb and Gutter	7,390	lf	\$ 7.00	\$ 51,730
510	4" Topsoil	0	sy	\$ 5.00	\$ -
610	11' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
708	Auxiliary Lanes and Median Openings Allotment	1,260	sf	\$ 59.00	\$ 74,320
Paving Construction Cost Subtotal:					\$ 777,191
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	23,316
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	23,316
✓	Pavement Markings/Markers		3%	\$	23,316
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	15,544
✓	Basic Landscaping		4%	\$	31,088
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 116,579
Paving and Allowance Subtotal:					\$ 893,770
Construction Contingency: 15%					\$ 134,065
Construction Cost TOTAL:					\$ 1,028,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,028,000
Engineering/Survey/Testing:		20%	\$ 205,600
Mobilization		5%	\$ 51,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 1,285,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	D-34
Name:	Beach (9)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$1,684,794 overall to the construction, design, and ROW acquisition of this project.</b>		
Limits:	Timberland to Keller Hicks			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	5,465			
Service Area(s):	D			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 3,484
Engineering/Survey/Testing:			\$ 610,263
ROW/Easement Acquisition:			\$ 1,071,047
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,684,794</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	D-35
Name:	Beach (10)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$4,539,651 overall to this project.</b>		
Limits:	Keller Hicks to Golden Triangle			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,935			
Service Area(s):	D			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 3,915,155
Engineering/Survey/Testing:			\$ 67,755
ROW/Easement Acquisition:	Existing Alignment		\$ 556,741
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 4,539,651</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	D-36
Name:	Beach (11)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$8,691,202 overall to this project. This segment accounts for 73% (\$6,344,578) of the overall project.</b>		
Limits:	Vista Meadows to Heritage Trace			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,110			
Service Area(s):	D			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 4,128,505
Engineering/Survey/Testing:			\$ 358,096
ROW/Easement Acquisition:	Existing Alignment		\$ 1,857,977
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 6,344,578</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	D-37
Name:	Beach (12)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$8,691,202 overall to this project. This segment accounts for 27% (\$2,346,625) of the overall project.</b>		
Limits:	Heritage Trace to 155' S of Springview Ln			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	5,845			
Service Area(s):	D			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 1,526,981
Engineering/Survey/Testing:			\$ 132,447
ROW/Easement Acquisition:	Existing Alignment		\$ 687,197
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,346,625</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	D-38
Name:	Park Vista (4)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$13,102,646 overall to this project. This segment accounts for 33% (\$4,323,873) of the overall project.</b>		
Limits:	Timberland to Caylor			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	910			
Service Area(s):	D			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 3,824,532
Engineering/Survey/Testing:			\$ 76,951
Other			\$ (171,591)
ROW/Easement Acquisition:			\$ 593,982
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 4,323,873</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted contruction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	D-39
Name:	Park Vista (5)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector. This project currently has \$3,064,939 budgeted towards construction and ROW acquisition, of which the City contributed an impact fee-eligible amount of \$457,671.</b>		
Limits:	Keller Hicks to Golden Triangle			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	2,685			
Service Area(s):	D			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:	Transportation Impact Fees Legacy Fund		\$	130,900
Other			\$	(3,064,939)
ROW/Easement Acquisition:			\$	3,391,710
Impact Fee Project Cost TOTAL:			\$	457,671

**NOTE:** The impact free project cost for this project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. D-40
Name:	Park Vista (6)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	Golden Triangle to Ray White		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	2,690		
Service Area(s):	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	8,817	cy	\$ 17.00	\$ 149,893
233	6" Lime Stabilization (with Lime @ 32#/sy)	17,336	sy	\$ 4.00	\$ 69,342
333	11" Concrete Pavement	16,738	sy	\$ 55.00	\$ 920,578
433	6" Curb and Gutter	5,380	lf	\$ 7.00	\$ 37,660
533	4" Topsoil	10,162	sy	\$ 5.00	\$ 50,811
633	10' Concrete Sidewalk	53,800	sf	\$ 6.00	\$ 322,800
731	Auxiliary Lanes and Median Openings Allotment	459	sf	\$ 59.00	\$ 27,053
Paving Construction Cost Subtotal:					\$ 1,578,137
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	47,344
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	47,344
✓	Roadway Drainage		30%	\$	473,441
✓	Illumination		2%	\$	39,243
✓	Special Drainage Structures	Drainage Crossing(s)	\$ 1,212,750	\$	1,212,750
✓	Water	Minor Adjustments	6%	\$	94,688
✓	Sewer	Minor Adjustments	4%	\$	63,125
✓	Establish Turf / Erosion Control		2%	\$	31,563
✓	Basic Landscaping		4%	\$	63,125
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,072,624
Paving and Allowance Subtotal:					\$ 3,650,761
Construction Contingency:					15% \$ 547,614
Construction Cost TOTAL:					\$ 4,199,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,199,000
Engineering/Survey/Testing:		20%	\$ 839,800
Mobilization		5%	\$ 209,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 839,800
Impact Fee Project Cost TOTAL:			\$ 6,089,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>D-41</b>
<b>Name:</b>	Park Vista (7)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
<b>Limits:</b>	Wyndbrook to Mirage		
<b>Impact Fee Class:</b>	NCO-L2-T0-TWLT-P0-BOP (110)		
<b>Ultimate Class:</b>	5 Lane Undivided Neighborhood Connector		
<b>Length (lf):</b>	4,010		
<b>Service Area(s):</b>	D		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	13,144	cy	\$ 17.00	\$ 223,446
233	6" Lime Stabilization (with Lime @ 32#/sy)	25,842	sy	\$ 4.00	\$ 103,369
333	11" Concrete Pavement	24,951	sy	\$ 55.00	\$ 1,372,311
433	6" Curb and Gutter	8,020	lf	\$ 7.00	\$ 56,140
533	4" Topsoil	15,149	sy	\$ 5.00	\$ 75,744
633	10' Concrete Sidewalk	80,200	sf	\$ 6.00	\$ 481,200
731	Auxiliary Lanes and Median Openings Allotment	684	sf	\$ 59.00	\$ 40,328
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,352,538</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	70,576
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	70,576
✓	Pavement Markings/Markers		3%	\$	70,576
✓	Roadway Drainage	Standard Internal System	30%	\$	705,762
✓	Illumination		2%	\$	58,500
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	141,152
✓	Sewer	Minor Adjustments	4%	\$	94,102
✓	Establish Turf / Erosion Control		2%	\$	47,051
✓	Basic Landscaping		4%	\$	94,102
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 1,352,396</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 3,704,934</b>
<b>Construction Contingency:</b>					<b>15% \$ 555,740</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 4,261,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 4,261,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 852,200
<b>Mobilization</b>		5%	\$ 213,050
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 426,100
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 5,752,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	D-42
Name:	Park Vista (8)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$2,059,673 to this project.</b>		
Limits:	Shiver to N. Tarrant			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	2,600			
Service Area(s):	D			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 1,642,254
Engineering/Survey/Testing:			\$ 269,467
ROW/Easement Acquisition:			\$ 147,952
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,059,673</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**Appendix A – Service Area E**

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area E

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
E-1	NCO-L2-T0-TWLT-P0-BOP (110)	Eagle Mountain (1)	6,390' W of Fleming Ranch to Fleming Ranch	New	100%	\$ 9,658,000	\$ 9,658,000
E-2	NCO-L2-T0-NTMS-P0-BOP (110)	Eagle Mountain (2)	Fleming Ranch to BUS 287	New	100%	\$ 8,233,000	\$ 8,233,000
E-3	NCO-L2-T0-NTMS-P0-BLS (110)	Boat Club	1,555' W of Fleming Ranch to Fleming Ranch	New	100%	\$ 2,242,000	\$ 2,242,000
E-4	NCO-L3-T0-NTMS-P0-BLS (130) (W)	Heritage Trace (1)	Fleming Ranch to 5,790' E of Fleming Ranch	New	100%	\$ 8,820,000	\$ 8,820,000
E-5	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (2)	Old Decatur to BUS 287	Widening	100%	\$ 516,000	\$ 516,000
E-6	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (3)	BUS 287 to Willow Springs	New	100%	\$ 2,395,000	\$ 2,395,000
E-7	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (4)	Willow Springs to 3,005' E of Willow Springs	New	100%	\$ 5,017,000	\$ 5,017,000
E-8	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Heritage Trace (5)	3,005' E of Willow Springs to 275' W of Wagley Robertson	New	50%	\$ 4,968,000	\$ 2,484,000
E-9	NCO-L2-T0-NTMS-P0-BOP (110)	Bailey Boswell (1)	FM 1220 to 2,020' E of FM 1220	Widening	50%	\$ 2,709,000	\$ 1,354,500
E-10	NCO-L2-T0-NTMS-P0-BOP (110)	Bailey Boswell (2)	35' W of Bowman Roberts to 440' E of Wind River	Widening	100%	\$ 8,578,000	\$ 8,578,000
E-11, G-1	NCO-L2-T0-NTMS-P0-BOP (110)	WJ Boaz	FM 1220 to Old Decatur Rd	Widening	50%	\$ 14,507,000	\$ 7,253,500
E-12	NCO (E)	Robertson	680' W of Lake Country to Boat Club	Previous	100%	\$ 6,105,868	\$ 6,105,868
E-13	NCO-L3-T0-NTMS-P0-BLS (130) (W)	Fleming Ranch	Bonds Ranch to 1,670' S of Heritage Trace	New	100%	\$ 21,595,000	\$ 21,595,000
E-14	NCO-L1-T0-TWLT-P0-BOP (80)	Edward Green	Robertson to 1,995' S of Robertson	New	100%	\$ 2,145,000	\$ 2,145,000
E-15	NCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (6)	1,725' S of Bonds Ranch to 3,290' S of Bonds Ranch	New	100%	\$ 2,213,000	\$ 2,213,000
E-16	CCO-L2-T0-NTMS-P0-BOP (110)	Willow Springs (7)	6570' N of Heritage Trace to Heritage Trace	New	100%	\$ 9,521,000	\$ 9,521,000
E-17	NCO-L1-T0-TWLT-P0-BOP (80)	Old Decatur (1)	680' N of Milo to 195' S of Millstone	Widening	100%	\$ 898,000	\$ 898,000
C-24, E-18	NCO-L2-T0-TWLT-P0-BOP (110)	Wagley Robertson (6)	690' N of Quicksilver to 1,795' S of Bent Oak	Widening	50%	\$ 4,748,000	\$ 2,374,000
C-27, E-19	NCO-L1-T0-TWLT-P0-BOP (80)	Wagley Robertson (9)	145' N of Mystic River to 715' S of Mystic River	Widening	50%	\$ 878,000	\$ 439,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Eagle Mountain	BUS 287	Rebuild	100%	400,000	400,000
	Roundabout	Eagle Mountain	Fleming Ranch	New	100%	1,000,000	1,000,000
	Turn Lane Improvements	Heritage Trace	BUS 287	Rebuild	100%	800,000	800,000
	Turn Lane Improvements	Heritage Trace	Willow Springs	New	100%	510,000	510,000
	Turn Lane Improvements	Heritage Trace	Fleming Ranch	New	100%	1,020,000	1,020,000
	Roundabout	Robertson	Edward Green	Rebuild	100%	1,500,000	1,500,000
	Turn Lane Improvements	Robertson	FM 1220	Retrofit	50%	180,000	90,000
	Turn Lane Improvements	WJ Boaz	FM 1220	Rebuild	75%	500,000	375,000
	Turn Lane Improvements	WJ Boaz	Old Decatur	Rebuild	25%	500,000	125,000

**NOTES:**  
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2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-1
Name:	Eagle Mountain (1) 6,390' W of Fleming Ranch to Fleming Ranch	<b>This project consists of the construction of a new five-lane undivided Neighborhood Connector.</b>		
Limits:	NCO-L2-T0-TWLT-P0-BOP (110)			
Impact Fee Class:	5 Lane Undivided Neighborhood Connector			
Ultimate Class:	6,390			
Length (lf):	E			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	20,945	cy	\$ 17.00	\$ 356,065
233	6" Lime Stabilization (with Lime @ 32#/sy)	41,180	sy	\$ 4.00	\$ 164,720
333	11" Concrete Pavement	39,760	sy	\$ 55.00	\$ 2,186,800
433	6" Curb and Gutter	12,780	lf	\$ 7.00	\$ 89,460
533	4" Topsoil	24,140	sy	\$ 5.00	\$ 120,700
633	10' Concrete Sidewalk	127,800	sf	\$ 6.00	\$ 766,800
731	Auxiliary Lanes and Median Openings Allotment	1,089	sf	\$ 59.00	\$ 64,263
Paving Construction Cost Subtotal:					\$ 3,748,808
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	112,464
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	112,464
✓	Roadway Drainage	Standard Internal System	30%	\$	1,124,642
✓	Illumination		2%	\$	93,220
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	224,928
✓	Sewer	Minor Adjustments	4%	\$	149,952
✓	Establish Turf / Erosion Control		2%	\$	74,976
✓	Basic Landscaping		4%	\$	149,952
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,042,601
Paving and Allowance Subtotal:					\$ 5,791,409
Construction Contingency:					\$ 868,711
Construction Cost TOTAL:					\$ 6,661,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,661,000
Engineering/Survey/Testing:		20%	\$ 1,332,200
Mobilization		5%	\$ 333,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,332,200
Impact Fee Project Cost TOTAL:			\$ 9,658,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-2
Name:	Eagle Mountain (2) Fleming Ranch to BUS 287	<b>This project consists of the construction of a new four-lane divided Neighborhood Connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	5,825			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	16,828	cy	\$ 17.00	\$ 286,072
230	6" Lime Stabilization (with Lime @ 32#/sy)	32,361	sy	\$ 4.00	\$ 129,444
330	11" Concrete Pavement	29,772	sy	\$ 55.00	\$ 1,637,472
430	6" Curb and Gutter	23,300	lf	\$ 7.00	\$ 163,100
530	4" Topsoil	28,478	sy	\$ 5.00	\$ 142,389
630	10' Concrete Sidewalk	116,500	sf	\$ 6.00	\$ 699,000
728	Auxiliary Lanes and Median Openings Allotment	2,339	sf	\$ 59.00	\$ 137,991
Paving Construction Cost Subtotal:					\$ 3,195,468
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	95,864
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	95,864
✓	Roadway Drainage	Standard Internal System	30%	\$	958,641
✓	Illumination		2%	\$	79,461
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	191,728
✓	Sewer	Minor Adjustments	4%	\$	127,819
✓	Establish Turf / Erosion Control		2%	\$	63,909
✓	Basic Landscaping		4%	\$	127,819
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,741,104
Paving and Allowance Subtotal:					\$ 4,936,573
Construction Contingency:					15% \$ 740,486
Construction Cost TOTAL:					\$ 5,678,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,678,000
Engineering/Survey/Testing:		20%	\$ 1,135,600
Mobilization		5%	\$ 283,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,135,600
Impact Fee Project Cost TOTAL:			\$ 8,233,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-3
Name:	Boat Club	<b>This project consists of the construction of a new four-lane divided Neighborhood Connector.</b>		
Limits:	1,555' W of Fleming Ranch to Fleming Ranch			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,555			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	4,492	cy	\$ 17.00	\$ 76,368
228	6" Lime Stabilization (with Lime @ 32#/sy)	8,639	sy	\$ 4.00	\$ 34,556
328	11" Concrete Pavement	7,948	sy	\$ 55.00	\$ 437,128
428	6" Curb and Gutter	6,220	lf	\$ 7.00	\$ 43,540
528	4" Topsoil	7,257	sy	\$ 5.00	\$ 36,283
628	11' Concrete Sidewalk	34,210	sf	\$ 6.00	\$ 205,260
726	Auxiliary Lanes and Median Openings Allotment	624	sf	\$ 59.00	\$ 36,837
Paving Construction Cost Subtotal:					\$ 869,971
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	26,099
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	26,099
✓	Roadway Drainage	Standard Internal System	30%	\$	260,991
✓	Illumination		2%	\$	21,633
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	52,198
✓	Sewer	Minor Adjustments	4%	\$	34,799
✓	Establish Turf / Erosion Control		2%	\$	17,399
✓	Basic Landscaping		4%	\$	34,799
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 474,018
Paving and Allowance Subtotal:					\$ 1,343,990
Construction Contingency:					15% \$ 201,598
Construction Cost TOTAL:					\$ 1,546,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,546,000
Engineering/Survey/Testing:		20%	\$ 309,200
Mobilization		5%	\$ 77,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 309,200
Impact Fee Project Cost TOTAL:			\$ 2,242,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-4
Name:	Heritage Trace (1)	<b>This project consists of the construction of a new four-lane divided Neighborhood Connector with a wide median.</b>		
Limits:	Fleming Ranch to 5,790' E of Fleming Ranch			
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	5,790			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	23,803	cy	\$ 17.00	\$ 404,657
209	6" Lime Stabilization (with Lime @ 32#/sy)	32,167	sy	\$ 4.00	\$ 128,667
309	11" Concrete Pavement	29,593	sy	\$ 55.00	\$ 1,627,633
409	6" Curb and Gutter	23,160	lf	\$ 7.00	\$ 162,120
509	4" Topsoil	39,887	sy	\$ 5.00	\$ 199,433
609	11' Concrete Sidewalk	127,380	sf	\$ 6.00	\$ 764,280
707	Auxiliary Lanes and Median Openings Allotment	2,325	sf	\$ 59.00	\$ 137,162
Paving Construction Cost Subtotal:					\$ 3,423,952
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	102,719
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	102,719
✓	Roadway Drainage	Standard Internal System	30%	\$	1,027,185
✓	Illumination		2%	\$	85,142
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	205,437
✓	Sewer	Minor Adjustments	4%	\$	136,958
✓	Establish Turf / Erosion Control		2%	\$	68,479
✓	Basic Landscaping		4%	\$	136,958
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,865,597
Paving and Allowance Subtotal:					\$ 5,289,549
Construction Contingency:					\$ 793,432
Construction Cost TOTAL:					\$ 6,083,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,083,000
Engineering/Survey/Testing:		20%	\$ 1,216,600
Mobilization		5%	\$ 304,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,216,600
Impact Fee Project Cost TOTAL:			\$ 8,820,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-5
Name:	Heritage Trace (2) Old Decatur to BUS 287	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided Commercial Connector with a wide median.</b>		
Limits:				
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (W)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	325			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	1,625	cy	\$ 17.00	\$ 27,625
203	6" Lime Stabilization (with Lime @ 32#/sy)	2,383	sy	\$ 4.00	\$ 9,533
303	11" Concrete Pavement	2,239	sy	\$ 55.00	\$ 123,139
403	6" Curb and Gutter	1,300	lf	\$ 7.00	\$ 9,100
503	4" Topsoil	2,022	sy	\$ 5.00	\$ 10,111
603	6' Concrete Sidewalk	3,900	sf	\$ 6.00	\$ 23,400
701	Auxiliary Lanes and Median Openings Allotment	130	sf	\$ 59.00	\$ 7,699
Paving Construction Cost Subtotal:					\$ 210,607
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	6,318
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	6,318
✓	Pavement Markings/Markers		3%	\$	6,318
✓	Roadway Drainage	Standard Internal System	30%	\$	63,182
✓	Illumination		2%	\$	5,237
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	12,636
✓	Sewer	Minor Adjustments	4%	\$	8,424
✓	Establish Turf / Erosion Control		2%	\$	4,212
✓	Basic Landscaping		4%	\$	8,424
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 121,071
Paving and Allowance Subtotal:					\$ 331,679
Construction Contingency:					15% \$ 49,752
Construction Cost TOTAL:					\$ 382,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 382,000
Engineering/Survey/Testing:		20%	\$ 76,400
Mobilization		5%	\$ 19,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 38,200
Impact Fee Project Cost TOTAL:			\$ 516,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-6
Name:	Heritage Trace (3) BUS 287 to Willow Springs	<b>This project consists of the construction of a new four-lane divided Commercial Connector with a wide median.</b>		
Limits:				
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (W)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	1,000			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	5,000	cy	\$ 17.00	\$ 85,000
203	6" Lime Stabilization (with Lime @ 32#/sy)	7,333	sy	\$ 4.00	\$ 29,333
303	11" Concrete Pavement	6,889	sy	\$ 55.00	\$ 378,889
403	6" Curb and Gutter	4,000	lf	\$ 7.00	\$ 28,000
503	4" Topsoil	6,222	sy	\$ 5.00	\$ 31,111
603	6' Concrete Sidewalk	12,000	sf	\$ 6.00	\$ 72,000
701	Auxiliary Lanes and Median Openings Allotment	402	sf	\$ 59.00	\$ 23,689
Paving Construction Cost Subtotal:					\$ 648,023
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	19,441
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	19,441
✓	Roadway Drainage	Standard Internal System	30%	\$	194,407
✓	Illumination		2%	\$	16,114
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	38,881
✓	Sewer	Minor Adjustments	4%	\$	25,921
✓	Establish Turf / Erosion Control		2%	\$	12,960
✓	Basic Landscaping		4%	\$	25,921
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
Allowance Subtotal:					\$ 853,086
Paving and Allowance Subtotal:					\$ 1,501,109
Construction Contingency:					15% \$ 150,166
Construction Cost TOTAL:					\$ 1,652,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,652,000
Engineering/Survey/Testing:		20%	\$ 330,400
Mobilization		5%	\$ 82,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 330,400
Impact Fee Project Cost TOTAL:			\$ 2,395,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-7
Name:	Heritage Trace (4)	<b>This project consists of the construction of a new four-lane divided Commercial Connector with a wide median.</b>		
Limits:	Willow Springs to 3,005' E of Willow Springs			
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (W)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	3,005			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	15,025	cy	\$ 17.00	\$ 255,425
203	6" Lime Stabilization (with Lime @ 32#/sy)	22,037	sy	\$ 4.00	\$ 88,147
303	11" Concrete Pavement	20,701	sy	\$ 55.00	\$ 1,138,561
403	6" Curb and Gutter	12,020	lf	\$ 7.00	\$ 84,140
503	4" Topsoil	18,698	sy	\$ 5.00	\$ 93,489
603	6' Concrete Sidewalk	36,060	sf	\$ 6.00	\$ 216,360
701	Auxiliary Lanes and Median Openings Allotment	1,207	sf	\$ 59.00	\$ 71,187
Paving Construction Cost Subtotal:					\$ 1,947,308
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	58,419
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	58,419
✓	Roadway Drainage	Standard Internal System	30%	\$	584,192
✓	Illumination		2%	\$	48,423
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	116,838
✓	Sewer	Minor Adjustments	4%	\$	77,892
✓	Establish Turf / Erosion Control		2%	\$	38,946
✓	Basic Landscaping		4%	\$	77,892
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,061,023
Paving and Allowance Subtotal:					\$ 3,008,332
Construction Contingency:					15% \$ 451,250
Construction Cost TOTAL:					\$ 3,460,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,460,000
Engineering/Survey/Testing:		20%	\$ 692,000
Mobilization		5%	\$ 173,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 692,000
Impact Fee Project Cost TOTAL:			\$ 5,017,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-8
Name:	Heritage Trace (5)	<b>This project consists of the construction of a new four-lane divided Commercial Connector with a wide median.</b>		
Limits:	3,005' E of Willow Springs to 275' W of Wagley Robertson			
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (W)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	2,975			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
103	Unclassified Street Excavation	14,875	cy	\$ 17.00	\$ 252,875
203	6" Lime Stabilization (with Lime @ 32#/sy)	21,817	sy	\$ 4.00	\$ 87,267
303	11" Concrete Pavement	20,494	sy	\$ 55.00	\$ 1,127,194
403	6" Curb and Gutter	11,900	lf	\$ 7.00	\$ 83,300
503	4" Topsoil	18,511	sy	\$ 5.00	\$ 92,556
603	6' Concrete Sidewalk	35,700	sf	\$ 6.00	\$ 214,200
701	Auxiliary Lanes and Median Openings Allotment	1,195	sf	\$ 59.00	\$ 70,476
Paving Construction Cost Subtotal:					\$ 1,927,868
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	57,836
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	57,836
✓	Roadway Drainage	Standard Internal System	30%	\$	578,360
✓	Illumination		2%	\$	47,940
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	115,672
✓	Sewer	Minor Adjustments	4%	\$	77,115
✓	Establish Turf / Erosion Control		2%	\$	38,557
✓	Basic Landscaping		4%	\$	77,115
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,050,431
Paving and Allowance Subtotal:					\$ 2,978,298
Construction Contingency:					15% \$ 446,745
Construction Cost TOTAL:					\$ 3,426,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,426,000
Engineering/Survey/Testing:		20%	\$ 685,200
Mobilization		5%	\$ 171,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 685,200
Impact Fee Project Cost TOTAL:			\$ 4,968,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-9
Name:	Bailey Boswell (1) FM 1220 to 2,020' E of FM 1220	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided Neighborhood Connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,020			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	5,836	cy	\$ 17.00	\$ 99,204
230	6" Lime Stabilization (with Lime @ 32#/sy)	11,222	sy	\$ 4.00	\$ 44,889
330	11" Concrete Pavement	10,324	sy	\$ 55.00	\$ 567,844
430	6" Curb and Gutter	8,080	lf	\$ 7.00	\$ 56,560
530	4" Topsoil	9,876	sy	\$ 5.00	\$ 49,378
630	10' Concrete Sidewalk	40,400	sf	\$ 6.00	\$ 242,400
728	Auxiliary Lanes and Median Openings Allotment	811	sf	\$ 59.00	\$ 47,853
Paving Construction Cost Subtotal:					\$ 1,108,128
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	33,244
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	33,244
✓	Pavement Markings/Markers		3%	\$	33,244
✓	Roadway Drainage	Standard Internal System	30%	\$	332,438
✓	Illumination		2%	\$	27,555
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	66,488
✓	Sewer	Minor Adjustments	4%	\$	44,325
✓	Establish Turf / Erosion Control		2%	\$	22,163
✓	Basic Landscaping		4%	\$	44,325
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 637,026
Paving and Allowance Subtotal:					\$ 1,745,154
Construction Contingency:					15% \$ 261,773
Construction Cost TOTAL:					\$ 2,007,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,007,000
Engineering/Survey/Testing:		20%	\$ 401,400
Mobilization		5%	\$ 100,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 200,700
Impact Fee Project Cost TOTAL:			\$ 2,709,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-10
Name:	Bailey Boswell (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided Neighborhood Connector.</b>		
Limits:	35' W of Bowman Roberts to 440' E of Wind River			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	6,395			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	18,474	cy	\$ 17.00	\$ 314,066
230	6" Lime Stabilization (with Lime @ 32#/sy)	35,528	sy	\$ 4.00	\$ 142,111
330	11" Concrete Pavement	32,686	sy	\$ 55.00	\$ 1,797,706
430	6" Curb and Gutter	25,580	lf	\$ 7.00	\$ 179,060
530	4" Topsoil	31,264	sy	\$ 5.00	\$ 156,322
630	10' Concrete Sidewalk	127,900	sf	\$ 6.00	\$ 767,400
728	Auxiliary Lanes and Median Openings Allotment	2,568	sf	\$ 59.00	\$ 151,494
Paving Construction Cost Subtotal:					\$ 3,508,158
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	105,245
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	105,245
✓	Pavement Markings/Markers		3%	\$	105,245
✓	Roadway Drainage	Standard Internal System	30%	\$	1,052,447
✓	Illumination		2%	\$	87,236
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	210,489
✓	Sewer	Minor Adjustments	4%	\$	140,326
✓	Establish Turf / Erosion Control		2%	\$	70,163
✓	Basic Landscaping		4%	\$	140,326
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,016,723
Paving and Allowance Subtotal:					\$ 5,524,881
Construction Contingency:					15% \$ 828,732
Construction Cost TOTAL:					\$ 6,354,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,354,000
Engineering/Survey/Testing:		20%	\$ 1,270,800
Mobilization		5%	\$ 317,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 635,400
Impact Fee Project Cost TOTAL:			\$ 8,578,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	WJ Boaz FM 1220 to Old Decatur Rd	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided Neighborhood Connector.</b>	<b>E-11, G-1</b>
Limits:			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	10,815		
Service Area(s):	E, G		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	31,243	cy	\$ 17.00	\$ 531,137
230	6" Lime Stabilization (with Lime @ 32#/sy)	60,083	sy	\$ 4.00	\$ 240,333
330	11" Concrete Pavement	55,277	sy	\$ 55.00	\$ 3,040,217
430	6" Curb and Gutter	43,260	lf	\$ 7.00	\$ 302,820
530	4" Topsoil	52,873	sy	\$ 5.00	\$ 264,367
630	10' Concrete Sidewalk	216,300	sf	\$ 6.00	\$ 1,297,800
728	Auxiliary Lanes and Median Openings Allotment	4,342	sf	\$ 59.00	\$ 256,201
Paving Construction Cost Subtotal:					\$ 5,932,874
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	177,986
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	177,986
✓	Pavement Markings/Markers		3%	\$	177,986
✓	Roadway Drainage	Standard Internal System	30%	\$	1,779,862
✓	Illumination		2%	\$	147,531
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	355,972
✓	Sewer	Minor Adjustments	4%	\$	237,315
✓	Establish Turf / Erosion Control		2%	\$	118,657
✓	Basic Landscaping		4%	\$	237,315
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 3,410,612
Paving and Allowance Subtotal:					\$ 9,343,486
Construction Contingency:					15% \$ 1,401,523
Construction Cost TOTAL:					\$ 10,746,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 10,746,000
Engineering/Survey/Testing:		20%	\$ 2,149,200
Mobilization		5%	\$ 537,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 1,074,600
Impact Fee Project Cost TOTAL:			\$ 14,507,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	E-12
Name:	Robertson	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane undivided Neighborhood Connector. The City contributed \$6,105,868 to this project.</b>		
Limits:	680' W of Lake Country to Boat Club			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	4,570			
Service Area(s):	E			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 5,274,256
Engineering/Survey/Testing:			\$ 443,238
ROW/Easement Acquisition:			\$ 388,374
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 6,105,868</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-13
Name:	Fleming Ranch	<b>This project consists of the construction of a new four-lane divided Neighborhood Connector with a wide median.</b>		
Limits:	Bonds Ranch to 1,670' S of Heritage Trace			
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	14,175			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
109	Unclassified Street Excavation	58,275	cy	\$ 17.00	\$ 990,675
209	6" Lime Stabilization (with Lime @ 32#/sy)	78,750	sy	\$ 4.00	\$ 315,000
309	11" Concrete Pavement	72,450	sy	\$ 55.00	\$ 3,984,750
409	6" Curb and Gutter	56,700	lf	\$ 7.00	\$ 396,900
509	4" Topsoil	97,650	sy	\$ 5.00	\$ 488,250
609	11' Concrete Sidewalk	311,850	sf	\$ 6.00	\$ 1,871,100
707	Auxiliary Lanes and Median Openings Allotment	5,691	sf	\$ 59.00	\$ 335,797
Paving Construction Cost Subtotal:					\$ 8,382,472
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	251,474
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	251,474
✓	Roadway Drainage	Standard Internal System	30%	\$	2,514,742
✓	Illumination		2%	\$	208,444
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	502,948
✓	Sewer	Minor Adjustments	4%	\$	335,299
✓	Establish Turf / Erosion Control		2%	\$	167,649
✓	Basic Landscaping		4%	\$	335,299
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 4,567,330
Paving and Allowance Subtotal:					\$ 12,949,802
Construction Contingency:					15% \$ 1,942,470
Construction Cost TOTAL:					\$ 14,893,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 14,893,000
Engineering/Survey/Testing:		20%	\$ 2,978,600
Mobilization		5%	\$ 744,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 2,978,600
Impact Fee Project Cost TOTAL:			\$ 21,595,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-14
Name:	Edward Green	<b>This project consists of the construction of a new three-lane undivided Neighborhood Connector.</b>		
	Robertson to 1,995' S of Robertson			
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,995			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	4,101	cy	\$ 17.00	\$ 69,714
241	6" Lime Stabilization (with Lime @ 32#/sy)	7,980	sy	\$ 4.00	\$ 31,920
341	11" Concrete Pavement	7,537	sy	\$ 55.00	\$ 414,517
441	6" Curb and Gutter	3,990	lf	\$ 7.00	\$ 27,930
541	4" Topsoil	5,763	sy	\$ 5.00	\$ 28,817
641	10' Concrete Sidewalk	39,900	sf	\$ 6.00	\$ 239,400
739	Auxiliary Lanes and Median Openings Allotment	340	sf	\$ 59.00	\$ 20,063
Paving Construction Cost Subtotal:					\$ 832,361
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	24,971
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	24,971
✓	Roadway Drainage	Standard Internal System	30%	\$	249,708
✓	Illumination		2%	\$	20,698
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	49,942
✓	Sewer	Minor Adjustments	4%	\$	33,294
✓	Establish Turf / Erosion Control		2%	\$	16,647
✓	Basic Landscaping		4%	\$	33,294
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 453,526
Paving and Allowance Subtotal:					\$ 1,285,887
Construction Contingency:					15% \$ 192,883
Construction Cost TOTAL:					\$ 1,479,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,479,000
Engineering/Survey/Testing:		20%	\$ 295,800
Mobilization		5%	\$ 73,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 295,800
Impact Fee Project Cost TOTAL:			\$ 2,145,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-15
Name:	Willow Springs (6)	<b>This project consists of the construction of a new four-lane divided Neighborhood Connector.</b>		
Limits:	1,725' S of Bonds Ranch to 3,290' S of Bonds Ranch			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,565			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	4,521	cy	\$ 17.00	\$ 76,859
230	6" Lime Stabilization (with Lime @ 32#/sy)	8,694	sy	\$ 4.00	\$ 34,778
330	11" Concrete Pavement	7,999	sy	\$ 55.00	\$ 439,939
430	6" Curb and Gutter	6,260	lf	\$ 7.00	\$ 43,820
530	4" Topsoil	7,651	sy	\$ 5.00	\$ 38,256
630	10' Concrete Sidewalk	31,300	sf	\$ 6.00	\$ 187,800
728	Auxiliary Lanes and Median Openings Allotment	628	sf	\$ 59.00	\$ 37,074
Paving Construction Cost Subtotal:					\$ 858,525
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	25,756
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	25,756
✓	Roadway Drainage	Standard Internal System	30%	\$	257,558
✓	Illumination		2%	\$	21,349
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	51,512
✓	Sewer	Minor Adjustments	4%	\$	34,341
✓	Establish Turf / Erosion Control		2%	\$	17,171
✓	Basic Landscaping		4%	\$	34,341
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 467,782
Paving and Allowance Subtotal:					\$ 1,326,307
Construction Contingency:					15% \$ 198,946
Construction Cost TOTAL:					\$ 1,526,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,526,000
Engineering/Survey/Testing:		20%	\$ 305,200
Mobilization		5%	\$ 76,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 305,200
Impact Fee Project Cost TOTAL:			\$ 2,213,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-16
Name:	Willow Springs (7) 6570' N of Heritage Trace to Heritage Trace	<b>This project consists of the construction of a new four-lane divided Commercial Connector.</b>		
Limits:				
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	6,570			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	19,710	cy	\$ 17.00	\$ 335,070
223	6" Lime Stabilization (with Lime @ 32#/sy)	37,960	sy	\$ 4.00	\$ 151,840
323	11" Concrete Pavement	35,040	sy	\$ 55.00	\$ 1,927,200
423	6" Curb and Gutter	26,280	lf	\$ 7.00	\$ 183,960
523	4" Topsoil	30,660	sy	\$ 5.00	\$ 153,300
623	10' Concrete Sidewalk	131,400	sf	\$ 6.00	\$ 788,400
721	Auxiliary Lanes and Median Openings Allotment	2,638	sf	\$ 59.00	\$ 155,639
Paving Construction Cost Subtotal:					\$ 3,695,409
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	110,862
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	110,862
✓	Roadway Drainage	Standard Internal System	30%	\$	1,108,623
✓	Illumination		2%	\$	91,893
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	221,725
✓	Sewer	Minor Adjustments	4%	\$	147,816
✓	Establish Turf / Erosion Control		2%	\$	73,908
✓	Basic Landscaping		4%	\$	147,816
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,013,505
Paving and Allowance Subtotal:					\$ 5,708,915
Construction Contingency:					15% \$ 856,337
Construction Cost TOTAL:					\$ 6,566,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,566,000
Engineering/Survey/Testing:		20%	\$ 1,313,200
Mobilization		5%	\$ 328,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,313,200
Impact Fee Project Cost TOTAL:			\$ 9,521,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	E-17
Name:	Old Decatur (1) 680' N of Milo to 195' S of Millstone	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided Neighborhood Connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	880			
Service Area(s):	E			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	1,809	cy	\$ 17.00	\$ 30,751
241	6" Lime Stabilization (with Lime @ 32#/sy)	3,520	sy	\$ 4.00	\$ 14,080
341	11" Concrete Pavement	3,324	sy	\$ 55.00	\$ 182,844
441	6" Curb and Gutter	1,760	lf	\$ 7.00	\$ 12,320
541	4" Topsoil	2,542	sy	\$ 5.00	\$ 12,711
641	10' Concrete Sidewalk	17,600	sf	\$ 6.00	\$ 105,600
739	Auxiliary Lanes and Median Openings Allotment	150	sf	\$ 59.00	\$ 8,850
Paving Construction Cost Subtotal:					\$ 367,157
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	11,015
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	11,015
✓	Pavement Markings/Markers		3%	\$	11,015
✓	Roadway Drainage	Standard Internal System	30%	\$	110,147
✓	Illumination		2%	\$	9,130
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	22,029
✓	Sewer	Minor Adjustments	4%	\$	14,686
✓	Establish Turf / Erosion Control		2%	\$	7,343
✓	Basic Landscaping		4%	\$	14,686
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 211,066
Paving and Allowance Subtotal:					\$ 578,223
Construction Contingency:					15% \$ 86,733
Construction Cost TOTAL:					\$ 665,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 665,000
Engineering/Survey/Testing:		20%	\$ 133,000
Mobilization		5%	\$ 33,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 66,500
Impact Fee Project Cost TOTAL:			\$ 898,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-24, E-18
Name:	Wagley Robertson (6)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided Neighborhood Connector.</b>	
Limits:	690' N of Quicksilver to 1,795' S of Bent Oak		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	3,310		
Service Area(s):	E, C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	10,849	cy	\$ 17.00	\$ 184,441
233	6" Lime Stabilization (with Lime @ 32#/sy)	21,331	sy	\$ 4.00	\$ 85,324
333	11" Concrete Pavement	20,596	sy	\$ 55.00	\$ 1,132,756
433	6" Curb and Gutter	6,620	lf	\$ 7.00	\$ 46,340
533	4" Topsoil	12,504	sy	\$ 5.00	\$ 62,522
633	10' Concrete Sidewalk	66,200	sf	\$ 6.00	\$ 397,200
731	Auxiliary Lanes and Median Openings Allotment	564	sf	\$ 59.00	\$ 33,288
Paving Construction Cost Subtotal:					\$ 1,941,871
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	58,256
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	58,256
✓	Pavement Markings/Markers		3%	\$	58,256
✓	Roadway Drainage	Standard Internal System	30%	\$	582,561
✓	Illumination		2%	\$	48,288
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	116,512
✓	Sewer	Minor Adjustments	4%	\$	77,675
✓	Establish Turf / Erosion Control		2%	\$	38,837
✓	Basic Landscaping		4%	\$	77,675
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,116,317
Paving and Allowance Subtotal:					\$ 3,058,188
Construction Contingency:					15% \$ 458,728
Construction Cost TOTAL:					\$ 3,517,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,517,000
Engineering/Survey/Testing:		20%	\$ 703,400
Mobilization		5%	\$ 175,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 351,700
Impact Fee Project Cost TOTAL:			\$ 4,748,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-27, E-19
Name:	Wagley Robertson (9)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided Neighborhood Connector.</b>	
Limits:	145' N of Mystic River to 715' S of Mystic River		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	860		
Service Area(s):	E, C		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	1,768	cy	\$ 17.00	\$ 30,052
241	6" Lime Stabilization (with Lime @ 32#/sy)	3,440	sy	\$ 4.00	\$ 13,760
341	11" Concrete Pavement	3,249	sy	\$ 55.00	\$ 178,689
441	6" Curb and Gutter	1,720	lf	\$ 7.00	\$ 12,040
541	4" Topsoil	2,484	sy	\$ 5.00	\$ 12,422
641	10' Concrete Sidewalk	17,200	sf	\$ 6.00	\$ 103,200
739	Auxiliary Lanes and Median Openings Allotment	147	sf	\$ 59.00	\$ 8,649
Paving Construction Cost Subtotal:					\$ 358,812
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	10,764
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	10,764
✓	Pavement Markings/Markers		3%	\$	10,764
✓	Roadway Drainage	Standard Internal System	30%	\$	107,644
✓	Illumination		2%	\$	8,922
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	21,529
✓	Sewer	Minor Adjustments	4%	\$	14,352
✓	Establish Turf / Erosion Control		2%	\$	7,176
✓	Basic Landscaping		4%	\$	14,352
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 206,269
Paving and Allowance Subtotal:					\$ 565,081
Construction Contingency:					15% \$ 84,762
Construction Cost TOTAL:					\$ 650,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 650,000
Engineering/Survey/Testing:		20%	\$ 130,000
Mobilization		5%	\$ 32,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 65,000
Impact Fee Project Cost TOTAL:			\$ 878,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**Appendix A - Service Area F**



City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area F

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
C-20, F-1	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Basswood	Candler to IH-35 W	Median	50%	\$ 571,000	\$ 285,500
F-2	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Western Center (1)	FM 156 to 430' E of FM 156	Widening	100%	\$ 625,000	\$ 625,000
F-3	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (2)	430' E of FM 156 to Robert W Downing	Median	100%	\$ 951,000	\$ 951,000
F-4	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (3)	Riverside to 980' E of Riverside	Median	100%	\$ 341,000	\$ 341,000
F-5	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (4)	590' W of Bayberry to Spoonwood	Median	100%	\$ 780,000	\$ 780,000
F-6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Western Center (5)	Spoonwood to Beach	Median	100%	\$ 360,000	\$ 360,000
F-7	NCO-L2-T0-NTMS-P0-BOP (110)	Cantrell Sansom (1)	455' W of Nafex to 610' E of Nafex	Widening	100%	\$ 1,430,000	\$ 1,430,000
F-8	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Cantrell Sansom (2)	610' E of Nafex to 190' E of Deerfoot	Widening	100%	\$ 805,000	\$ 805,000
F-9	NCO-L2-T0-NTMS-P0-BOP (110)	Cantrell Sansom (3)	470' E of Mark IV to Old Denton	Widening	100%	\$ 1,536,000	\$ 1,536,000
F-10	NCO-L2-T0-NTMS-P0-BOP (110)	Cantrell Sansom (4)	Old Denton to IH-35 W SBFR	New	100%	\$ 1,443,000	\$ 1,443,000
F-11	CCO-L1-T0-TWLT-P0-BOP (80)	Northeast	Superior to Mark IV	New	100%	\$ 1,595,000	\$ 1,595,000
F-12	CCO-L2-T0-TWLT-P0-BOP (110)	Meacham (1)	635' E of FM 156 to RR Bridge	Widening	100%	\$ 3,128,000	\$ 3,128,000
F-13	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Meacham (2)	Deen to Mark IV	Widening	100%	\$ 975,000	\$ 975,000
F-14	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Meacham (3)	Mark IV to 1335' E of Mark IV	Widening	100%	\$ 957,000	\$ 957,000
F-15	CCO-L1-T0-TWLT-P0-BOP (80)	Lone Star (1)	400' S of Northeast to 555' N of Franklin	New	100%	\$ 5,471,000	\$ 5,471,000
F-16	CCO-L1-T0-TWLT-P0-BOP (80)	Lone Star (2)	145' N of Meacham to Meacham	New	100%	\$ 162,000	\$ 162,000
F-17	NCO (E)	Riverside (11)	Stone Creek to 180' N of Redwood Creek	Previous	100%	\$ 1,377,102	\$ 1,377,102
F-18	CCO-L1-T0-TWLT-P0-BOP (80)	Sylvania	Melody Hills to Quorum	Widening	100%	\$ 1,793,000	\$ 1,793,000
F-19	CCO-L3-T0-NTMS-P0-BLB (130)	Beach (13)	Fossil Creek to IH-820 WBFR	Previous	100%	\$ 7,598,454	\$ 7,598,454
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Beach	Basswood	Retrofit	50%	\$ 590,000	\$ 295,000
	Roundabout	Cantrell Sansom	Mark IV	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	US 377	Basswood	Retrofit	25%	\$ 475,000	\$ 118,750
	Turn Lane Improvements	Fossil Creek	Beach	Retrofit	50%	\$ 230,000	\$ 115,000
	Roundabout	Great Southwest	Lone Star	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Great Southwest	Mark IV	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Roundabout	Great Southwest	Northeast	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Roundabout	Long	Sylvania	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Long	Deen	Retrofit	50%	\$ 770,000	\$ 385,000
	Turn Lane Improvements	Meacham	Sylvania	Retrofit	100%	\$ 460,000	\$ 460,000
	Turn Lane Improvements	Meacham	Mark IV	Rebuild	100%	\$ 200,000	\$ 200,000
	Turn Lane Improvements	Meacham	FM 156	Retrofit	100%	\$ 950,000	\$ 950,000
	Roundabout	Northeast	Mark IV	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Northeast	Atlee	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Roundabout	Northern Cross	Sylvania	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Park Vista	Basswood	Retrofit	50%	\$ 460,000	\$ 230,000
	Turn Lane Improvements	Riverside	Basswood	Retrofit	50%	\$ 820,000	\$ 410,000
	Turn Lane Improvements	Western Center	Robert W Downing	Retrofit	100%	\$ 770,000	\$ 770,000
<b>NOTES:</b> 1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project. 2. Intersection Improvements were identified based on impact fee project status, MTP classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based on further design level evaluation.							

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. C-20, F-1
Name:	Basswood	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	Candler to IH-35 W		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	1,640		
Service Area(s):	F, C		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	2,369	cy	\$ 17.00	\$ 40,271
212	6" Lime Stabilization (with Lime @ 32#/sy)	4,556	sy	\$ 4.00	\$ 18,222
312	11" Concrete Pavement	4,191	sy	\$ 55.00	\$ 230,511
412	6" Curb and Gutter	3,280	lf	\$ 7.00	\$ 22,960
512	4" Topsoil	0	sy	\$ 5.00	\$ -
612	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
710	Auxiliary Lanes and Median Openings Allotment	559	sf	\$ 59.00	\$ 32,986

**Paving Construction Cost Subtotal: \$ 344,951**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 10,349
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 10,349
✓ Pavement Markings/Markers		3%	\$ 10,349
Roadway Drainage	None Anticipated	0%	\$ -
Illumination	None Anticipated	0%	\$ -
Special Drainage Structures	None Anticipated	\$ -	\$ -
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
✓ Establish Turf / Erosion Control		2%	\$ 6,899
✓ Basic Landscaping		4%	\$ 13,798
Other:		\$0	\$ -

**Allowance Subtotal: \$ 51,743**

**Paving and Allowance Subtotal: \$ 396,693**

**Construction Contingency: 15% \$ 59,504**

**Construction Cost TOTAL: \$ 457,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 457,000
Engineering/Survey/Testing:		20%	\$ 91,400
Mobilization		5%	\$ 22,850
Previous City contribution			\$ -
Other			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 571,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-2
<b>Name:</b>	Western Center (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector with a wide median.</b>		
<b>Limits:</b>	FM 156 to 430' E of FM 156			
<b>Impact Fee Class:</b>	CCO-L3-T0-NTMS-P0-BOP (130) (W)			
<b>Ultimate Class:</b>	6 Lane Divided Commercial Connector			
<b>Length (lf):</b>	430			
<b>Service Area(s):</b>	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	1,816	cy	\$ 17.00	\$ 30,864
206	6" Lime Stabilization (with Lime @ 32#/sy)	2,484	sy	\$ 4.00	\$ 9,938
306	11" Concrete Pavement	2,293	sy	\$ 55.00	\$ 126,133
406	6" Curb and Gutter	1,720	lf	\$ 7.00	\$ 12,040
506	4" Topsoil	2,962	sy	\$ 5.00	\$ 14,811
606	10' Concrete Sidewalk	8,600	sf	\$ 6.00	\$ 51,600
704	Auxiliary Lanes and Median Openings Allotment	173	sf	\$ 59.00	\$ 10,186

**Paving Construction Cost Subtotal: \$ 255,573**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 7,667
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 7,667
✓ Pavement Markings/Markers		3%	\$ 7,667
✓ Roadway Drainage	Standard Internal System	30%	\$ 76,672
✓ Illumination		2%	\$ 6,355
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 15,334
✓ Sewer	Minor Adjustments	4%	\$ 10,223
✓ Establish Turf / Erosion Control		2%	\$ 5,111
✓ Basic Landscaping		4%	\$ 10,223
Other:		\$0	\$ -

**Allowance Subtotal: \$ 146,920**

**Paving and Allowance Subtotal: \$ 402,494**

**Construction Contingency: 15% \$ 60,374**

**Construction Cost TOTAL: \$ 463,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 463,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 92,600
<b>Mobilization</b>		5%	\$ 23,150
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 46,300
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 625,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-3
<b>Name:</b>	Western Center (2)	<b>This project consists of the construction of the median lanes to complete the six-lane divided commercial connector.</b>		
<b>Limits:</b>	430' E of FM 156 to Robert W Downing			
<b>Impact Fee Class:</b>	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)			
<b>Ultimate Class:</b>	6 Lane Divided Commercial Connector			
<b>Length (lf):</b>	2,685			
<b>Service Area(s):</b>	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	4,475	cy	\$ 17.00	\$ 76,075
205	6" Lime Stabilization (with Lime @ 32#/sy)	7,458	sy	\$ 4.00	\$ 29,833
305	11" Concrete Pavement	6,862	sy	\$ 55.00	\$ 377,392
405	6" Curb and Gutter	5,370	lf	\$ 7.00	\$ 37,590
505	4" Topsoil	0	sy	\$ 5.00	\$ -
605	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
703	Auxiliary Lanes and Median Openings Allotment	915	sf	\$ 59.00	\$ 54,005

**Paving Construction Cost Subtotal: \$ 574,895**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 17,247
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 17,247
✓ Pavement Markings/Markers		3%	\$ 17,247
Roadway Drainage	None Anticipated	0%	\$ -
Illumination	None Anticipated	0%	\$ -
Special Drainage Structures	None Anticipated	\$ -	\$ -
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
✓ Establish Turf / Erosion Control		2%	\$ 11,498
✓ Basic Landscaping		4%	\$ 22,996
Other:		\$0	\$ -

**Allowance Subtotal: \$ 86,234**

**Paving and Allowance Subtotal: \$ 661,129**

**Construction Contingency: 15% \$ 99,169**

**Construction Cost TOTAL: \$ 761,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 761,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 152,200
<b>Mobilization</b>		5%	\$ 38,050
<b>Previous City contribution</b>			\$ -
<b>Other</b>			\$ -
<b>ROW/Easement Acquisition:</b>	No ROW Acquisition Costs included	0%	\$ -
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 951,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-4
<b>Name:</b>	Western Center (3)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>		
<b>Limits:</b>	Riverside to 980' E of Riverside			
<b>Impact Fee Class:</b>	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)			
<b>Ultimate Class:</b>	6 Lane Divided Neighborhood Connector			
<b>Length (lf):</b>	980			
<b>Service Area(s):</b>	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	1,416	cy	\$ 17.00	\$ 24,064
212	6" Lime Stabilization (with Lime @ 32#/sy)	2,722	sy	\$ 4.00	\$ 10,889
312	11" Concrete Pavement	2,504	sy	\$ 55.00	\$ 137,744
412	6" Curb and Gutter	1,960	lf	\$ 7.00	\$ 13,720
512	4" Topsoil	0	sy	\$ 5.00	\$ -
612	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
710	Auxiliary Lanes and Median Openings Allotment	334	sf	\$ 59.00	\$ 19,711

**Paving Construction Cost Subtotal: \$ 206,129**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 6,184
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 6,184
✓ Pavement Markings/Markers		3%	\$ 6,184
Roadway Drainage	None Anticipated	0%	\$ -
Illumination	None Anticipated	0%	\$ -
Special Drainage Structures	None Anticipated	\$ -	\$ -
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
✓ Establish Turf / Erosion Control		2%	\$ 4,123
✓ Basic Landscaping		4%	\$ 8,245
Other:		\$0	\$ -

**Allowance Subtotal: \$ 30,919**

**Paving and Allowance Subtotal: \$ 237,049**

**Construction Contingency: 15% \$ 35,557**

**Construction Cost TOTAL: \$ 273,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 273,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 54,600
<b>Mobilization</b>		5%	\$ 13,650
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	No ROW Acquisition Costs included	0%	\$ -
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 341,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-5
<b>Name:</b>	Western Center (4)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>		
<b>Limits:</b>	590' W of Bayberry to Spoonwood			
<b>Impact Fee Class:</b>	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)			
<b>Ultimate Class:</b>	6 Lane Divided Neighborhood Connector			
<b>Length (lf):</b>	2,240			
<b>Service Area(s):</b>	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	3,236	cy	\$ 17.00	\$ 55,004
212	6" Lime Stabilization (with Lime @ 32#/sy)	6,222	sy	\$ 4.00	\$ 24,889
312	11" Concrete Pavement	5,724	sy	\$ 55.00	\$ 314,844
412	6" Curb and Gutter	4,480	lf	\$ 7.00	\$ 31,360
512	4" Topsoil	0	sy	\$ 5.00	\$ -
612	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
710	Auxiliary Lanes and Median Openings Allotment	764	sf	\$ 59.00	\$ 45,055

**Paving Construction Cost Subtotal: \$ 471,152**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 14,135
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 14,135
✓ Pavement Markings/Markers		3%	\$ 14,135
Roadway Drainage	None Anticipated	0%	\$ -
Illumination	None Anticipated	0%	\$ -
Special Drainage Structures	None Anticipated	\$ -	\$ -
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
✓ Establish Turf / Erosion Control		2%	\$ 9,423
✓ Basic Landscaping		4%	\$ 18,846
Other:		\$0	\$ -

**Allowance Subtotal: \$ 70,673**

**Paving and Allowance Subtotal: \$ 541,825**

**Construction Contingency: 15% \$ 81,274**

**Construction Cost TOTAL: \$ 624,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 624,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 124,800
<b>Mobilization</b>		5%	\$ 31,200
<b>Previous City contribution</b>			\$ -
<b>Other</b>			\$ -
<b>ROW/Easement Acquisition:</b>	No ROW Acquisition Costs included	0%	\$ -
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 780,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-6
<b>Name:</b>	Western Center (5)	<b>This project consists of the construction of the median lanes to complete the six-lane divided commercial connector.</b>		
<b>Limits:</b>	Spoonwood to Beach			
<b>Impact Fee Class:</b>	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)			
<b>Ultimate Class:</b>	6 Lane Divided Commercial Connector			
<b>Length (lf):</b>	1,015			
<b>Service Area(s):</b>	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
105	Unclassified Street Excavation	1,692	cy	\$ 17.00	\$ 28,758
205	6" Lime Stabilization (with Lime @ 32#/sy)	2,819	sy	\$ 4.00	\$ 11,278
305	11" Concrete Pavement	2,594	sy	\$ 55.00	\$ 142,664
405	6" Curb and Gutter	2,030	lf	\$ 7.00	\$ 14,210
505	4" Topsoil	0	sy	\$ 5.00	\$ -
605	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
703	Auxiliary Lanes and Median Openings Allotment	346	sf	\$ 59.00	\$ 20,415

**Paving Construction Cost Subtotal: \$ 217,325**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 6,520
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 6,520
✓ Pavement Markings/Markers		3%	\$ 6,520
Roadway Drainage	None Anticipated	0%	\$ -
Illumination	None Anticipated	0%	\$ -
Special Drainage Structures	None Anticipated	\$ -	\$ -
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
✓ Establish Turf / Erosion Control		2%	\$ 4,347
✓ Basic Landscaping		4%	\$ 8,693
Other:		\$0	\$ -

**Allowance Subtotal: \$ 32,599**

**Paving and Allowance Subtotal: \$ 249,924**

**Construction Contingency: 15% \$ 37,489**

**Construction Cost TOTAL: \$ 288,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 288,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 57,600
<b>Mobilization</b>		5%	\$ 14,400
<b>Previous City contribution</b>			\$ -
<b>Other</b>			\$ -
<b>ROW/Easement Acquisition:</b>	No ROW Acquisition Costs included	0%	\$ -
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 360,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-7
<b>Name:</b>	Cantrell Sansom (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
<b>Limits:</b>	455' W of Nafex to 610' E of Nafex			
<b>Impact Fee Class:</b>	NCO-L2-T0-NTMS-P0-BOP (110)			
<b>Ultimate Class:</b>	4 Lane Divided Neighborhood Connector			
<b>Length (lf):</b>	1,065			
<b>Service Area(s):</b>	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	3,077	cy	\$ 17.00	\$ 52,303
230	6" Lime Stabilization (with Lime @ 32#/sy)	5,917	sy	\$ 4.00	\$ 23,667
330	11" Concrete Pavement	5,443	sy	\$ 55.00	\$ 299,383
430	6" Curb and Gutter	4,260	lf	\$ 7.00	\$ 29,820
530	4" Topsoil	5,207	sy	\$ 5.00	\$ 26,033
630	10' Concrete Sidewalk	21,300	sf	\$ 6.00	\$ 127,800
728	Auxiliary Lanes and Median Openings Allotment	428	sf	\$ 59.00	\$ 25,229

**Paving Construction Cost Subtotal: \$ 584,236**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 17,527
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 17,527
✓ Pavement Markings/Markers		3%	\$ 17,527
✓ Roadway Drainage	Standard Internal System	30%	\$ 175,271
✓ Illumination		2%	\$ 14,528
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 35,054
✓ Sewer	Minor Adjustments	4%	\$ 23,369
✓ Establish Turf / Erosion Control		2%	\$ 11,685
✓ Basic Landscaping		4%	\$ 23,369
Other:		\$0	\$ -

**Allowance Subtotal: \$ 335,858**

**Paving and Allowance Subtotal: \$ 920,094**

**Construction Contingency: 15% \$ 138,014**

**Construction Cost TOTAL: \$ 1,059,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,059,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 211,800
<b>Mobilization</b>		5%	\$ 52,950
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 105,900

**Impact Fee Project Cost TOTAL: \$ 1,430,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-8
<b>Name:</b>	Cantrell Sansom (2)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided neighborhood connector.</b>		
<b>Limits:</b>	610' E of Nafex to 190' E of Deerfoot			
<b>Impact Fee Class:</b>	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
<b>Ultimate Class:</b>	4 Lane Divided Neighborhood Connector			
<b>Length (lf):</b>	1,150			
<b>Service Area(s):</b>	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	1,661	cy	\$ 17.00	\$ 28,239
231	6" Lime Stabilization (with Lime @ 32#/sy)	3,194	sy	\$ 4.00	\$ 12,778
331	11" Concrete Pavement	2,939	sy	\$ 55.00	\$ 161,639
431	6" Curb and Gutter	2,300	lf	\$ 7.00	\$ 16,100
531	4" Topsoil	2,811	sy	\$ 5.00	\$ 14,056
631	10' Concrete Sidewalk	11,500	sf	\$ 6.00	\$ 69,000
729	Auxiliary Lanes and Median Openings Allotment	462	sf	\$ 59.00	\$ 27,243

**Paving Construction Cost Subtotal: \$ 329,054**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 9,872
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 9,872
✓ Pavement Markings/Markers		3%	\$ 9,872
✓ Roadway Drainage	Standard Internal System	30%	\$ 98,716
✓ Illumination		2%	\$ 8,182
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 19,743
✓ Sewer	Minor Adjustments	4%	\$ 13,162
✓ Establish Turf / Erosion Control		2%	\$ 6,581
✓ Basic Landscaping		4%	\$ 13,162
Other:		\$0	\$ -

**Allowance Subtotal: \$ 189,162**

**Paving and Allowance Subtotal: \$ 518,216**

**Construction Contingency: 15% \$ 77,732**

**Construction Cost TOTAL: \$ 596,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 596,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 119,200
<b>Mobilization</b>		5%	\$ 29,800
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 59,600
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 805,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-9
Name:	Cantrell Sansom (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:	470' E of Mark IV to Old Denton			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,145			
Service Area(s):	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	3,308	cy	\$ 17.00	\$ 56,232
230	6" Lime Stabilization (with Lime @ 32#/sy)	6,361	sy	\$ 4.00	\$ 25,444
330	11" Concrete Pavement	5,852	sy	\$ 55.00	\$ 321,872
430	6" Curb and Gutter	4,580	lf	\$ 7.00	\$ 32,060
530	4" Topsoil	5,598	sy	\$ 5.00	\$ 27,989
630	10' Concrete Sidewalk	22,900	sf	\$ 6.00	\$ 137,400
728	Auxiliary Lanes and Median Openings Allotment	460	sf	\$ 59.00	\$ 27,124

**Paving Construction Cost Subtotal: \$ 628,122**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 18,844
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 18,844
✓ Pavement Markings/Markers		3%	\$ 18,844
✓ Roadway Drainage	Standard Internal System	30%	\$ 188,437
✓ Illumination		2%	\$ 15,619
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 37,687
✓ Sewer	Minor Adjustments	4%	\$ 25,125
✓ Establish Turf / Erosion Control		2%	\$ 12,562
✓ Basic Landscaping		4%	\$ 25,125
Other:		\$0	\$ -

**Allowance Subtotal: \$ 361,086**

**Paving and Allowance Subtotal: \$ 989,209**

**Construction Contingency: 15% \$ 148,381**

**Construction Cost TOTAL: \$ 1,138,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,138,000
Engineering/Survey/Testing:		20%	\$ 227,600
Mobilization		5%	\$ 56,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 113,800

**Impact Fee Project Cost TOTAL: \$ 1,536,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-10
Name:	Cantrell Sansom (4)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	Old Denton to IH-35 W SBFR			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,020			
Service Area(s):	F			
Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
130	Unclassified Street Excavation	2,947	cy	\$ 17.00 \$ 50,093
230	6" Lime Stabilization (with Lime @ 32#/sy)	5,667	sy	\$ 4.00 \$ 22,667
330	11" Concrete Pavement	5,213	sy	\$ 55.00 \$ 286,733
430	6" Curb and Gutter	4,080	lf	\$ 7.00 \$ 28,560
530	4" Topsoil	4,987	sy	\$ 5.00 \$ 24,933
630	10' Concrete Sidewalk	20,400	sf	\$ 6.00 \$ 122,400
728	Auxiliary Lanes and Median Openings Allotment	410	sf	\$ 59.00 \$ 24,163
Paving Construction Cost Subtotal:				\$ 559,550
Major Construction Component Allowances:				
Item Description	Notes	Allowance	Item Cost	
✓ Prep ROW		3%	\$	16,786
Traffic Control	None Anticipated	0%	\$	-
✓ Pavement Markings/Markers		3%	\$	16,786
✓ Roadway Drainage	Standard Internal System	30%	\$	167,865
✓ Illumination		2%	\$	13,914
Special Drainage Structures	None Anticipated	\$ -	\$	-
✓ Water	Minor Adjustments	6%	\$	33,573
✓ Sewer	Minor Adjustments	4%	\$	22,382
✓ Establish Turf / Erosion Control		2%	\$	11,191
✓ Basic Landscaping		4%	\$	22,382
Other:		\$0	\$	-
Allowance Subtotal:				\$ 304,880
Paving and Allowance Subtotal:				\$ 864,430
Construction Contingency:				15% \$ 129,664
Construction Cost TOTAL:				\$ 995,000
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:		-	\$	995,000
Engineering/Survey/Testing:		20%	\$	199,000
Mobilization		5%	\$	49,750
Previous City contribution			\$	-
Other				
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	199,000
Impact Fee Project Cost TOTAL:				\$ 1,443,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-11	
Name:	Northeast	This project consists of the construction of a new three-lane undivided commercial connector.			
Limits:	Superior to Mark IV				
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)				
Ultimate Class:	3 Lane Undivided Commercial Connector				
Length (lf):	1,040				
Service Area(s):	F				
Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	2,253	cy	\$ 17.00	\$ 38,307
239	6" Lime Stabilization (with Lime @ 32#/sy)	4,391	sy	\$ 4.00	\$ 17,564
339	11" Concrete Pavement	4,160	sy	\$ 55.00	\$ 228,800
439	6" Curb and Gutter	2,080	lf	\$ 7.00	\$ 14,560
539	4" Topsoil	2,773	sy	\$ 5.00	\$ 13,867
639	10' Concrete Sidewalk	20,800	sf	\$ 6.00	\$ 124,800
737	Auxiliary Lanes and Median Openings Allotment	177	sf	\$ 59.00	\$ 10,459
Paving Construction Cost Subtotal:					\$ 448,357
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
√	Prep ROW	None Anticipated	3%	\$	13,451
	Traffic Control		0%	\$	-
√	Pavement Markings/Markers	Standard Internal System	3%	\$	13,451
√	Roadway Drainage		30%	\$	134,507
√	Illumination		2%	\$	11,149
√	Special Drainage Structures	Minor Stream Crossing(s)	\$ 263,250	\$	263,250
√	Water	Minor Adjustments	6%	\$	26,901
√	Sewer	Minor Adjustments	4%	\$	17,934
√	Establish Turf / Erosion Control		2%	\$	8,967
√	Basic Landscaping		4%	\$	17,934
	Other:		\$0	\$	-
Allowance Subtotal:				\$	507,545
Paving and Allowance Subtotal:				\$	955,902
Construction Contingency:				15%	\$ 143,385
Construction Cost TOTAL:				\$	1,100,000
Impact Fee Project Cost Summary					
Item Description		Notes:	Allowance	Item Cost	
Construction:			-	\$	1,100,000
Engineering/Survey/Testing:			20%	\$	220,000
Mobilization			5%	\$	55,000
Previous City contribution				\$	-
Other					
ROW/Easement Acquisition:		New Roadway Alignment	20%	\$	220,000
Impact Fee Project Cost TOTAL:				\$	1,595,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-12
Name:	Meacham (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector.</b>		
Limits:	635' E of FM 156 to RR Bridge			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	2,130			
Service Area(s):	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	7,218	cy	\$ 17.00	\$ 122,712
225	6" Lime Stabilization (with Lime @ 32#/sy)	14,200	sy	\$ 4.00	\$ 56,800
325	11" Concrete Pavement	13,727	sy	\$ 55.00	\$ 754,967
425	6" Curb and Gutter	4,260	lf	\$ 7.00	\$ 29,820
525	4" Topsoil	7,573	sy	\$ 5.00	\$ 37,867
625	10' Concrete Sidewalk	42,600	sf	\$ 6.00	\$ 255,600
723	Auxiliary Lanes and Median Openings Allotment	363	sf	\$ 59.00	\$ 21,421

**Paving Construction Cost Subtotal: \$ 1,279,186**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 38,376
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 38,376
✓ Pavement Markings/Markers		3%	\$ 38,376
✓ Roadway Drainage	Standard Internal System	30%	\$ 383,756
✓ Illumination		2%	\$ 31,809
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 76,751
✓ Sewer	Minor Adjustments	4%	\$ 51,167
✓ Establish Turf / Erosion Control		2%	\$ 25,584
✓ Basic Landscaping		4%	\$ 51,167
Other:		\$0	\$ -

**Allowance Subtotal: \$ 735,361**

**Paving and Allowance Subtotal: \$ 2,014,547**

**Construction Contingency: 15% \$ 302,182**

**Construction Cost TOTAL: \$ 2,317,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,317,000
Engineering/Survey/Testing:		20%	\$ 463,400
Mobilization		5%	\$ 115,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 231,700

**Impact Fee Project Cost TOTAL: \$ 3,128,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-13
Name:	Meacham (2)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided commercial connector.</b>		
Limits:	Deen to Mark IV			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,360			
Service Area(s):	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	2,040	cy	\$ 17.00	\$ 34,680
224	6" Lime Stabilization (with Lime @ 32#/sy)	3,929	sy	\$ 4.00	\$ 15,716
324	11" Concrete Pavement	3,627	sy	\$ 55.00	\$ 199,467
424	6" Curb and Gutter	2,720	lf	\$ 7.00	\$ 19,040
524	4" Topsoil	3,173	sy	\$ 5.00	\$ 15,867
624	10' Concrete Sidewalk	13,600	sf	\$ 6.00	\$ 81,600
722	Auxiliary Lanes and Median Openings Allotment	546	sf	\$ 59.00	\$ 32,218

**Paving Construction Cost Subtotal: \$ 398,586**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 11,958
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 11,958
✓ Pavement Markings/Markers		3%	\$ 11,958
✓ Roadway Drainage	Standard Internal System	30%	\$ 119,576
✓ Illumination		2%	\$ 9,912
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 23,915
✓ Sewer	Minor Adjustments	4%	\$ 15,943
✓ Establish Turf / Erosion Control		2%	\$ 7,972
✓ Basic Landscaping		4%	\$ 15,943
Other:		\$0	\$ -

**Allowance Subtotal: \$ 229,134**

**Paving and Allowance Subtotal: \$ 627,721**

**Construction Contingency: 15% \$ 94,158**

**Construction Cost TOTAL: \$ 722,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 722,000
Engineering/Survey/Testing:		20%	\$ 144,400
Mobilization		5%	\$ 36,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 72,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 975,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-14
Name:	Meacham (3)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided commercial connector.</b>		
Limits:	Mark IV to 1335' E of Mark IV			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1,335			
Service Area(s):	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	2,003	cy	\$ 17.00	\$ 34,043
224	6" Lime Stabilization (with Lime @ 32#/sy)	3,857	sy	\$ 4.00	\$ 15,427
324	11" Concrete Pavement	3,560	sy	\$ 55.00	\$ 195,800
424	6" Curb and Gutter	2,670	lf	\$ 7.00	\$ 18,690
524	4" Topsoil	3,115	sy	\$ 5.00	\$ 15,575
624	10' Concrete Sidewalk	13,350	sf	\$ 6.00	\$ 80,100
722	Auxiliary Lanes and Median Openings Allotment	536	sf	\$ 59.00	\$ 31,625

**Paving Construction Cost Subtotal: \$ 391,260**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 11,738
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 11,738
✓ Pavement Markings/Markers		3%	\$ 11,738
✓ Roadway Drainage	Standard Internal System	30%	\$ 117,378
✓ Illumination		2%	\$ 9,729
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 23,476
✓ Sewer	Minor Adjustments	4%	\$ 15,650
✓ Establish Turf / Erosion Control		2%	\$ 7,825
✓ Basic Landscaping		4%	\$ 15,650
Other:		\$0	\$ -

**Allowance Subtotal: \$ 224,922**

**Paving and Allowance Subtotal: \$ 616,182**

**Construction Contingency: 15% \$ 92,427**

**Construction Cost TOTAL: \$ 709,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 709,000
Engineering/Survey/Testing:		20%	\$ 141,800
Mobilization		5%	\$ 35,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 70,900
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 957,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-15	
Name:	Lone Star (1)	This project consists of the construction of a new three-lane undivided commercial connector.			
Limits:	400' S of Northeast to 555' N of Franklin				
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)				
Ultimate Class:	3 Lane Undivided Commercial Connector				
Length (lf):	3,620				
Service Area(s):	F				
Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	7,843	cy	\$ 17.00	\$ 133,337
239	6" Lime Stabilization (with Lime @ 32#/sy)	15,284	sy	\$ 4.00	\$ 61,138
339	11" Concrete Pavement	14,480	sy	\$ 55.00	\$ 796,400
439	6" Curb and Gutter	7,240	lf	\$ 7.00	\$ 50,680
539	4" Topsoil	9,653	sy	\$ 5.00	\$ 48,267
639	10' Concrete Sidewalk	72,400	sf	\$ 6.00	\$ 434,400
737	Auxiliary Lanes and Median Openings Allotment	617	sf	\$ 59.00	\$ 36,406
Paving Construction Cost Subtotal:					\$ 1,560,627
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
√	Prep ROW			3%	\$ 46,819
	Traffic Control	None Anticipated		0%	\$ -
√	Pavement Markings/Markers			3%	\$ 46,819
√	Roadway Drainage	Standard Internal System		30%	\$ 468,188
√	Illumination			2%	\$ 38,808
	Special Drainage Structures	None Anticipated		\$ -	\$ -
√	Water	Minor Adjustments		6%	\$ 93,638
√	Sewer	Minor Adjustments		4%	\$ 62,425
√	Establish Turf / Erosion Control			2%	\$ 31,213
√	Basic Landscaping			4%	\$ 62,425
√	Other:	Railroad Crossings		\$1,000,000	\$ 1,000,000
Allowance Subtotal:					\$ 1,850,334
Paving and Allowance Subtotal:					\$ 3,410,960
Construction Contingency:					15% \$ 361,644
Construction Cost TOTAL:					\$ 3,773,000
Impact Fee Project Cost Summary					
Item Description		Notes:		Allowance	Item Cost
Construction:				-	\$ 3,773,000
Engineering/Survey/Testing:				20%	\$ 754,600
Mobilization				5%	\$ 188,650
Previous City contribution					\$ -
Other					
ROW/Easement Acquisition:		New Roadway Alignment		20%	\$ 754,600
Impact Fee Project Cost TOTAL:					\$ 5,471,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-16
Name:	Lone Star (2)	<b>This project consists of the construction of a new three-lane undivided commercial connector.</b>		
Limits:	145' N of Meacham to Meacham			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	145			
Service Area(s):	F			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	314	cy	\$ 17.00	\$ 5,341
239	6" Lime Stabilization (with Lime @ 32#/sy)	612	sy	\$ 4.00	\$ 2,449
339	11" Concrete Pavement	580	sy	\$ 55.00	\$ 31,900
439	6" Curb and Gutter	290	lf	\$ 7.00	\$ 2,030
539	4" Topsoil	387	sy	\$ 5.00	\$ 1,933
639	10' Concrete Sidewalk	2,900	sf	\$ 6.00	\$ 17,400
737	Auxiliary Lanes and Median Openings Allotment	25	sf	\$ 59.00	\$ 1,458
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 62,511</b>

Major Construction Component Allowances:			
Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 1,875
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 1,875
✓ Roadway Drainage	Standard Internal System	30%	\$ 18,753
✓ Illumination		2%	\$ 1,554
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 3,751
✓ Sewer	Minor Adjustments	4%	\$ 2,500
✓ Establish Turf / Erosion Control		2%	\$ 1,250
✓ Basic Landscaping		4%	\$ 2,500
Other:		\$0	\$ -
<b>Allowance Subtotal:</b>			<b>\$ 34,060</b>

<b>Paving and Allowance Subtotal:</b>	<b>\$ 96,572</b>
<b>Construction Contingency:</b> 15%	\$ 14,486
<b>Construction Cost TOTAL:</b>	<b>\$ 112,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 112,000
Engineering/Survey/Testing:		20%	\$ 22,400
Mobilization		5%	\$ 5,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 22,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 162,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.  
The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	F-17
Name:	Riverside (11)	This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$1,377,102 to this project.		
Limits:	Stone Creek to 180' N of Redwood Creek			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	985			
Service Area(s):	F			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	4,474,594
Engineering/Survey/Testing:			\$	480,192
Other	State Capital Grants - 31002		\$	(3,596,474)
ROW/Easement Acquisition:	Existing Alignment		\$	18,791
Impact Fee Project Cost TOTAL:			\$	1,377,102

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	F-18
Name:	Sylvania	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided commercial connector.</b>		
Limits:	Melody Hills to Quorum			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	1,700			
Service Area(s):	F			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	3,683	cy	\$ 17.00	\$ 62,617
239	6" Lime Stabilization (with Lime @ 32#/sy)	7,178	sy	\$ 4.00	\$ 28,711
339	11" Concrete Pavement	6,800	sy	\$ 55.00	\$ 374,000
439	6" Curb and Gutter	3,400	lf	\$ 7.00	\$ 23,800
539	4" Topsoil	4,533	sy	\$ 5.00	\$ 22,667
639	10' Concrete Sidewalk	34,000	sf	\$ 6.00	\$ 204,000
737	Auxiliary Lanes and Median Openings Allotment	290	sf	\$ 59.00	\$ 17,097

**Paving Construction Cost Subtotal: \$ 732,891**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 21,987
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 21,987
✓ Pavement Markings/Markers		3%	\$ 21,987
✓ Roadway Drainage	Standard Internal System	30%	\$ 219,867
✓ Illumination		2%	\$ 18,225
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 43,973
✓ Sewer	Minor Adjustments	4%	\$ 29,316
✓ Establish Turf / Erosion Control		2%	\$ 14,658
✓ Basic Landscaping		4%	\$ 29,316
Other:		\$0	\$ -

**Allowance Subtotal: \$ 421,315**

**Paving and Allowance Subtotal: \$ 1,154,206**

**Construction Contingency: 15% \$ 173,131**

**Construction Cost TOTAL: \$ 1,328,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,328,000
Engineering/Survey/Testing:		20%	\$ 265,600
Mobilization		5%	\$ 66,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 132,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,793,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	F-19
Name:	Beach (13)	This project consisted of the construction of the eastern median lane to its current configuration as a five-lane divided commercial connector. The City contributed \$6,218,454 to this project.		
Limits:	Fossil Creek to IH-820 WBFR			
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	3,575			
Service Area(s):	F			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	6,218,454
Engineering/Survey/Testing:			\$	1,200,000
ROW/Easement Acquisition:			\$	180,000
Impact Fee Project Cost TOTAL:			\$	7,598,454

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**Appendix A – Service Area G**

City of Fort Worth - 2017 Transportation Impact Fee Study  
Service Area G TIP Summary

Roadway/Intersection Improvements - Service Area G

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
E-11, G-1	NCO-L2-T0-NTMS-P0-BOP (110)	WJ Boaz	FM 1220 to Old Decatur Rd	Widening	50%	\$ 14,507,000	\$ 7,253,500
G-2	NCO-L2-T0-TWLT-P0-BOP (110)	Old Decatur (1)	Marine Creek to Old Decatur	New	100%	\$ 306,298	\$ 306,298
G-3	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (1)	FM 1220 to Huffines	Widening	100%	\$ 6,700,000	\$ 6,700,000
G-4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (2)	Huffines to Chesterfield	Widening	100%	\$ 2,562,000	\$ 2,562,000
G-5	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (3)	360' E of Crystal Lake to Stonewater Bend	Widening	100%	\$ 1,477,000	\$ 1,477,000
G-6	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Cromwell Marine Creek (4)	Stonewater Bend to Marine Creek	New	100%	\$ 4,426,000	\$ 4,426,000
G-7	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Longhorn	Marine Creek to Old Decatur	Widening	100%	\$ 1,810,000	\$ 1,810,000
G-8	NCO-L1-T0-TWLT-P0-BOP (80)	Ten Mile Bridge (1)	3,075' W of Hodgkins to Hodgkins	Widening	100%	\$ 3,137,000	\$ 3,137,000
G-9	NCO-L2-T0-NTMS-P0-BOP (110)	Ten Mile Bridge (2)	Hodgkins to FM 1220	Widening	100%	\$ 3,495,000	\$ 3,495,000
G-10	NCO-L1-T0-TWLT-P0-BOP (80)	Ten Mile Bridge (3)	FM 1220 to Bowman Roberts	Widening	100%	\$ 2,990,000	\$ 2,990,000
G-11	NCO-L1-T0-TWLT-P0-BOP (80)	Ten Mile Bridge (4)	Westgate to Huffines	Widening	100%	\$ 2,194,000	\$ 2,194,000
G-12	NCO-L1-T0-TWLT-P0-BOP (80)	Edward Geren (2)	4,570' N of Ten Mile Bridge to Ten Mile Bridge	New	100%	\$ 4,913,000	\$ 4,913,000
G-13	NCO-L1-T0-TWLT-P0-BOP (80)	Hodgkins	Ten Mile Bridge to Hatch	Widening	100%	\$ 5,403,000	\$ 5,403,000
G-14	NCO-L2-T0-NTMS-P0-BOP (110)	Marine Creek (1)	Old Decatur to 620' S of Old Decatur	New	100%	\$ 765,744	\$ 765,744
G-15	NCO-L2-T0-NTMS-P0-BOP (110)	Marine Creek (2)	620' S of Old Decatur Rd to Cromwell Marine Creek	New	100%	\$ 1,531,489	\$ 1,531,489
G-16	NCO-L2-T0-NTMS-P0-BOP (110)	Marine Creek (3)	Cromwell Marine Creek to Longhorn	Widening	100%	\$ 1,608,063	\$ 1,608,063
G-17	CCO (E)	Marine Creek (4)	Longhorn to 410' S of Goodland	Widening	100%	\$ 3,445,850	\$ 3,445,850
G-18	NCO-L1-T0-TWLT-P0-BOP (80)	Marine Creek (5)	Angle to FM 1220	New	100%	\$ 6,029,000	\$ 6,029,000
G-19	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Old Decatur (2)	River Rock to IH-820 WBFR	Widening	100%	\$ 1,096,000	\$ 1,096,000
G-20	NCO-L2-T0-NTMS-P0-BOP (110)	Old Decatur (3)	IH-820 EBFR to 890' N Of Angle	Widening	100%	\$ 4,481,000	\$ 4,481,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Cromwell Maine Creek	FM 1220	Rebuild	50%	\$ 200,000	\$ 100,000
	Turn Lane Improvements	Cromwell Marine Creek	Huffines	Rebuild	100%	\$ 500,000	\$ 500,000
	Turn Lane Improvements	Longhorn	Old Decatur	Rebuild	75%	\$ 300,000	\$ 225,000
	Roundabout	Longhorn	Marine Creek	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	Marine Creek	Old Decatur	New	100%	\$ 340,000	\$ 340,000
	Roundabout	Marine Creek	Angle	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	Robertson	FM 1220	Retrofit	50%	\$ 180,000	\$ 90,000
	Roundabout	Ten Mile Bridge	Huffines	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	Ten Mile Bridge	FM 1220	Rebuild	100%	\$ 1,200,000	\$ 1,200,000
	Roundabout	Ten Mile Bridge	Hodgkins	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	WJ Boaz	FM 1220	Rebuild	25%	\$ 500,000	\$ 125,000
	Turn Lane Improvements	WJ Boaz	Old Decatur	Rebuild	25%	\$ 500,000	\$ 125,000
<b>NOTES:</b> 1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project. 2. Intersection Improvements were identified based on impact fee project status, MTP classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based on further design level evaluation.							

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
<b>Name:</b>	WJ Boaz FM 1220 to Old Decatur Rd	<b>The project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	<b>E-11, G-1</b>
<b>Limits:</b>			
<b>Impact Fee Class:</b>	NCO-L2-T0-NTMS-P0-BOP (110)		
<b>Ultimate Class:</b>	4 Lane Divided Neighborhood Connector		
<b>Length (lf):</b>	10,815		
<b>Service Area(s):</b>	G, E		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	31,243	cy	\$ 17.00	\$ 531,137
230	6" Lime Stabilization (with Lime @ 32#/sy)	60,083	sy	\$ 4.00	\$ 240,333
330	11" Concrete Pavement	55,277	sy	\$ 55.00	\$ 3,040,217
430	6" Curb and Gutter	43,260	lf	\$ 7.00	\$ 302,820
530	4" Topsoil	52,873	sy	\$ 5.00	\$ 264,367
630	10' Concrete Sidewalk	216,300	sf	\$ 6.00	\$ 1,297,800
728	Auxiliary Lanes and Median Openings Allotment	4,342	sf	\$ 59.00	\$ 256,201

**Paving Construction Cost Subtotal: \$ 5,932,874**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 177,986
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 177,986
✓ Pavement Markings/Markers		3%	\$ 177,986
✓ Roadway Drainage	Standard Internal System	30%	\$ 1,779,862
✓ Illumination		2%	\$ 147,531
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 355,972
✓ Sewer	Minor Adjustments	4%	\$ 237,315
✓ Establish Turf / Erosion Control		2%	\$ 118,657
✓ Basic Landscaping		4%	\$ 237,315
Other:		\$0	\$ -

**Allowance Subtotal: \$ 3,410,612**

**Paving and Allowance Subtotal: \$ 9,343,486**

**Construction Contingency: 15% \$ 1,401,523**

**Construction Cost TOTAL: \$ 10,746,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 10,746,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 2,149,200
<b>Mobilization</b>		5%	\$ 537,300
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 1,074,600

**Impact Fee Project Cost TOTAL: \$ 14,507,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	G-2
Name:	Old Decatur (1) Marine Creek to Old Decatur	<b>This project is currently under construction to become a five-lane undivided neighborhood connector. The city budgeted \$7,657,444 to the overall project. This segment accounts for 4% (\$306,298).</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	225			
Service Area(s):	G			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	335,740
Engineering/Survey/Testing:			\$	13,894
Previous City contribution	Transportation Impact Fees Legacy Fund		\$	(68,000)
ROW/Easement Acquisition:			\$	24,664
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$</b>	<b>306,298</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-3
<b>Name:</b>	Cromwell Marine Creek (1) FM 1220 to Huffines	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector with a wide median.</b>		
<b>Limits:</b>				
<b>Impact Fee Class:</b>	CCO-L3-T0-NTMS-P0-BOP (130) (W)			
<b>Ultimate Class:</b>	6 Lane Divided Commercial Connector			
<b>Length (lf):</b>	4,610			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	19,464	cy	\$ 17.00	\$ 330,896
206	6" Lime Stabilization (with Lime @ 32#/sy)	26,636	sy	\$ 4.00	\$ 106,542
306	11" Concrete Pavement	24,587	sy	\$ 55.00	\$ 1,352,267
406	6" Curb and Gutter	18,440	lf	\$ 7.00	\$ 129,080
506	4" Topsoil	31,758	sy	\$ 5.00	\$ 158,789
606	10' Concrete Sidewalk	92,200	sf	\$ 6.00	\$ 553,200
704	Auxiliary Lanes and Median Openings Allotment	1,851	sf	\$ 59.00	\$ 109,208

**Paving Construction Cost Subtotal: \$ 2,739,981**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 82,199
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 82,199
✓ Pavement Markings/Markers		3%	\$ 82,199
✓ Roadway Drainage	Standard Internal System	30%	\$ 821,994
✓ Illumination		2%	\$ 68,134
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 164,399
✓ Sewer	Minor Adjustments	4%	\$ 109,599
✓ Establish Turf / Erosion Control		2%	\$ 54,800
✓ Basic Landscaping		4%	\$ 109,599
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,575,124**

**Paving and Allowance Subtotal: \$ 4,315,105**

**Construction Contingency: 15% \$ 647,266**

**Construction Cost TOTAL: \$ 4,963,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 4,963,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 992,600
<b>Mobilization</b>		5%	\$ 248,150
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 496,300

**Impact Fee Project Cost TOTAL: \$ 6,700,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-4
<b>Name:</b>	Cromwell Marine Creek (2) Huffines to Chesterfield	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector with a wide median</b>		
<b>Limits:</b>				
<b>Impact Fee Class:</b>	NCO-L3-T0-NTMS-P0-BOP (130) (W)			
<b>Ultimate Class:</b>	6 Lane Divided Neighborhood Connector			
<b>Length (lf):</b>	1,805			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	7,421	cy	\$ 17.00	\$ 126,149
213	6" Lime Stabilization (with Lime @ 32#/sy)	10,028	sy	\$ 4.00	\$ 40,111
313	11" Concrete Pavement	9,226	sy	\$ 55.00	\$ 507,406
413	6" Curb and Gutter	7,220	lf	\$ 7.00	\$ 50,540
513	4" Topsoil	12,836	sy	\$ 5.00	\$ 64,178
613	10' Concrete Sidewalk	36,100	sf	\$ 6.00	\$ 216,600
711	Auxiliary Lanes and Median Openings Allotment	725	sf	\$ 59.00	\$ 42,759

**Paving Construction Cost Subtotal: \$ 1,047,743**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 31,432
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 31,432
✓ Pavement Markings/Markers		3%	\$ 31,432
✓ Roadway Drainage	Standard Internal System	30%	\$ 314,323
✓ Illumination		2%	\$ 26,054
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 62,865
✓ Sewer	Minor Adjustments	4%	\$ 41,910
✓ Establish Turf / Erosion Control		2%	\$ 20,955
✓ Basic Landscaping		4%	\$ 41,910
Other:		\$0	\$ -

**Allowance Subtotal: \$ 602,313**

**Paving and Allowance Subtotal: \$ 1,650,056**

**Construction Contingency: 15% \$ 247,508**

**Construction Cost TOTAL: \$ 1,898,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,898,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 379,600
<b>Mobilization</b>		5%	\$ 94,900
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 189,800

**Impact Fee Project Cost TOTAL: \$ 2,562,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-5
<b>Name:</b>	Cromwell Marine Creek (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector with a wide median.</b>		
<b>Limits:</b>	360' E of Crystal Lake to Stonewater Bend			
<b>Impact Fee Class:</b>	NCO-L3-T0-NTMS-P0-BOP (130) (W)			
<b>Ultimate Class:</b>	6 Lane Divided Neighborhood Connector			
<b>Length (lf):</b>	1,040			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	4,276	cy	\$ 17.00	\$ 72,684
213	6" Lime Stabilization (with Lime @ 32#/sy)	5,778	sy	\$ 4.00	\$ 23,111
313	11" Concrete Pavement	5,316	sy	\$ 55.00	\$ 292,356
413	6" Curb and Gutter	4,160	lf	\$ 7.00	\$ 29,120
513	4" Topsoil	7,396	sy	\$ 5.00	\$ 36,978
613	10' Concrete Sidewalk	20,800	sf	\$ 6.00	\$ 124,800
711	Auxiliary Lanes and Median Openings Allotment	418	sf	\$ 59.00	\$ 24,637

**Paving Construction Cost Subtotal: \$ 603,686**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 18,111
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 18,111
✓ Pavement Markings/Markers		3%	\$ 18,111
✓ Roadway Drainage	Standard Internal System	30%	\$ 181,106
✓ Illumination		2%	\$ 15,012
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 36,221
✓ Sewer	Minor Adjustments	4%	\$ 24,147
✓ Establish Turf / Erosion Control		2%	\$ 12,074
✓ Basic Landscaping		4%	\$ 24,147
Other:		\$0	\$ -

**Allowance Subtotal: \$ 347,039**

**Paving and Allowance Subtotal: \$ 950,725**

**Construction Contingency: 15% \$ 142,609**

**Construction Cost TOTAL: \$ 1,094,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,094,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 218,800
<b>Mobilization</b>		5%	\$ 54,700
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 109,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,477,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-6
<b>Name:</b>	Cromwell Marine Creek (4) Stonewater Bend to Marine Creek	<b>This project consists of the construction of a new four-lane divided neighborhood connector with a wide median.</b>		
<b>Limits:</b>				
<b>Impact Fee Class:</b>	NCO-L3-T0-NTMS-P0-BOP (130) (W)			
<b>Ultimate Class:</b>	6 Lane Divided Neighborhood Connector			
<b>Length (lf):</b>	3,045			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	12,518	cy	\$ 17.00	\$ 212,812
213	6" Lime Stabilization (with Lime @ 32#/sy)	16,917	sy	\$ 4.00	\$ 67,667
313	11" Concrete Pavement	15,563	sy	\$ 55.00	\$ 855,983
413	6" Curb and Gutter	12,180	lf	\$ 7.00	\$ 85,260
513	4" Topsoil	21,653	sy	\$ 5.00	\$ 108,267
613	10' Concrete Sidewalk	60,900	sf	\$ 6.00	\$ 365,400
711	Auxiliary Lanes and Median Openings Allotment	1,223	sf	\$ 59.00	\$ 72,134

**Paving Construction Cost Subtotal: \$ 1,767,523**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 53,026
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 53,026
✓ Roadway Drainage	Standard Internal System	30%	\$ 530,257
✓ Illumination		2%	\$ 43,952
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 106,051
✓ Sewer	Minor Adjustments	4%	\$ 70,701
✓ Establish Turf / Erosion Control		2%	\$ 35,350
✓ Basic Landscaping		4%	\$ 70,701
Other:		\$0	\$ -

**Allowance Subtotal: \$ 963,064**

**Paving and Allowance Subtotal: \$ 2,730,587**

**Construction Contingency: 15% \$ 409,588**

**Construction Cost TOTAL: \$ 3,141,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 3,141,000
<b>Engineering/Survey/Testing:</b>		\$ 500,000	\$ 500,000
<b>Mobilization</b>		5%	\$ 157,050
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 628,200

**Impact Fee Project Cost TOTAL: \$ 4,426,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-7
<b>Name:</b>	Longhorn Marine Creek to Old Decatur	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector with a wide median.</b>		
<b>Limits:</b>				
<b>Impact Fee Class:</b>	NCO-L3-T0-NTMS-P0-BOP (130) (W)			
<b>Ultimate Class:</b>	6 Lane Divided Neighborhood Connector			
<b>Length (lf):</b>	1,275			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	5,242	cy	\$ 17.00	\$ 89,108
213	6" Lime Stabilization (with Lime @ 32#/sy)	7,083	sy	\$ 4.00	\$ 28,333
313	11" Concrete Pavement	6,517	sy	\$ 55.00	\$ 358,417
413	6" Curb and Gutter	5,100	lf	\$ 7.00	\$ 35,700
513	4" Topsoil	9,067	sy	\$ 5.00	\$ 45,333
613	10' Concrete Sidewalk	25,500	sf	\$ 6.00	\$ 153,000
711	Auxiliary Lanes and Median Openings Allotment	512	sf	\$ 59.00	\$ 30,204

**Paving Construction Cost Subtotal: \$ 740,096**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 22,203
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 22,203
✓ Pavement Markings/Markers		3%	\$ 22,203
✓ Roadway Drainage	Standard Internal System	30%	\$ 222,029
✓ Illumination		2%	\$ 18,404
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 44,406
✓ Sewer	Minor Adjustments	4%	\$ 29,604
✓ Establish Turf / Erosion Control		2%	\$ 14,802
✓ Basic Landscaping		4%	\$ 29,604
Other:		\$0	\$ -

**Allowance Subtotal: \$ 425,456**

**Paving and Allowance Subtotal: \$ 1,165,552**

**Construction Contingency: 15% \$ 174,833**

**Construction Cost TOTAL: \$ 1,341,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,341,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 268,200
<b>Mobilization</b>		5%	\$ 67,050
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 134,100

**Impact Fee Project Cost TOTAL: \$ 1,810,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-8
<b>Name:</b>	Ten Mile Bridge (1) 3,075' W of Hodgkins to Hodgkins	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
<b>Limits:</b>				
<b>Impact Fee Class:</b>	NCO-L1-T0-TWLT-P0-BOP (80)			
<b>Ultimate Class:</b>	3 Lane Undivided Neighborhood Connector			
<b>Length (lf):</b>	3,075			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	6,321	cy	\$ 17.00	\$ 107,454
241	6" Lime Stabilization (with Lime @ 32#/sy)	12,300	sy	\$ 4.00	\$ 49,200
341	11" Concrete Pavement	11,617	sy	\$ 55.00	\$ 638,917
441	6" Curb and Gutter	6,150	lf	\$ 7.00	\$ 43,050
541	4" Topsoil	8,883	sy	\$ 5.00	\$ 44,417
641	10' Concrete Sidewalk	61,500	sf	\$ 6.00	\$ 369,000
739	Auxiliary Lanes and Median Openings Allotment	524	sf	\$ 59.00	\$ 30,925

**Paving Construction Cost Subtotal: \$ 1,282,962**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 38,489
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 38,489
✓ Pavement Markings/Markers		3%	\$ 38,489
✓ Roadway Drainage	Standard Internal System	30%	\$ 384,889
✓ Illumination		2%	\$ 31,903
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 76,978
✓ Sewer	Minor Adjustments	4%	\$ 51,318
✓ Establish Turf / Erosion Control		2%	\$ 25,659
✓ Basic Landscaping		4%	\$ 51,318
Other:		\$0	\$ -

**Allowance Subtotal: \$ 737,532**

**Paving and Allowance Subtotal: \$ 2,020,494**

**Construction Contingency: 15% \$ 303,074**

**Construction Cost TOTAL: \$ 2,324,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 2,324,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 464,800
<b>Mobilization</b>		5%	\$ 116,200
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 232,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,137,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-9
<b>Name:</b>	Ten Mile Bridge (2) Hodgkins to FM 1220	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
<b>Limits:</b>				
<b>Impact Fee Class:</b>	NCO-L2-T0-NTMS-P0-BOP (110)			
<b>Ultimate Class:</b>	4 Lane Divided Neighborhood Connector			
<b>Length (lf):</b>	2,605			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,526	cy	\$ 17.00	\$ 127,934
230	6" Lime Stabilization (with Lime @ 32#/sy)	14,472	sy	\$ 4.00	\$ 57,889
330	11" Concrete Pavement	13,314	sy	\$ 55.00	\$ 732,294
430	6" Curb and Gutter	10,420	lf	\$ 7.00	\$ 72,940
530	4" Topsoil	12,736	sy	\$ 5.00	\$ 63,678
630	10' Concrete Sidewalk	52,100	sf	\$ 6.00	\$ 312,600
728	Auxiliary Lanes and Median Openings Allotment	1,046	sf	\$ 59.00	\$ 61,711

**Paving Construction Cost Subtotal: \$ 1,429,046**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 42,871
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 42,871
✓ Pavement Markings/Markers		3%	\$ 42,871
✓ Roadway Drainage	Standard Internal System	30%	\$ 428,714
✓ Illumination		2%	\$ 35,536
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 85,743
✓ Sewer	Minor Adjustments	4%	\$ 57,162
✓ Establish Turf / Erosion Control		2%	\$ 28,581
✓ Basic Landscaping		4%	\$ 57,162
Other:		\$0	\$ -

**Allowance Subtotal: \$ 821,511**

**Paving and Allowance Subtotal: \$ 2,250,558**

**Construction Contingency: 15% \$ 337,584**

**Construction Cost TOTAL: \$ 2,589,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 2,589,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 517,800
<b>Mobilization</b>		5%	\$ 129,450
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 258,900
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,495,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-10
<b>Name:</b>	Ten Mile Bridge (3) FM 1220 to Bowman Roberts	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
<b>Limits:</b>				
<b>Impact Fee Class:</b>	NCO-L1-T0-TWLT-P0-BOP (80)			
<b>Ultimate Class:</b>	3 Lane Undivided Neighborhood Connector			
<b>Length (lf):</b>	2,930			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	6,023	cy	\$ 17.00	\$ 102,387
241	6" Lime Stabilization (with Lime @ 32#/sy)	11,720	sy	\$ 4.00	\$ 46,880
341	11" Concrete Pavement	11,069	sy	\$ 55.00	\$ 608,789
441	6" Curb and Gutter	5,860	lf	\$ 7.00	\$ 41,020
541	4" Topsoil	8,464	sy	\$ 5.00	\$ 42,322
641	10' Concrete Sidewalk	58,600	sf	\$ 6.00	\$ 351,600
739	Auxiliary Lanes and Median Openings Allotment	499	sf	\$ 59.00	\$ 29,466

**Paving Construction Cost Subtotal: \$ 1,222,465**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 36,674
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 36,674
✓ Pavement Markings/Markers		3%	\$ 36,674
✓ Roadway Drainage	Standard Internal System	30%	\$ 366,739
✓ Illumination		2%	\$ 30,399
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 73,348
✓ Sewer	Minor Adjustments	4%	\$ 48,899
✓ Establish Turf / Erosion Control		2%	\$ 24,449
✓ Basic Landscaping		4%	\$ 48,899
Other:		\$0	\$ -

**Allowance Subtotal: \$ 702,754**

**Paving and Allowance Subtotal: \$ 1,925,219**

**Construction Contingency: 15% \$ 288,783**

**Construction Cost TOTAL: \$ 2,215,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 2,215,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 443,000
<b>Mobilization</b>		5%	\$ 110,750
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 221,500
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,990,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-11
<b>Name:</b>	Ten Mile Bridge (4) Westgate to Huffines	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
<b>Limits:</b>				
<b>Impact Fee Class:</b>	NCO-L1-T0-TWLT-P0-BOP (80)			
<b>Ultimate Class:</b>	3 Lane Undivided Neighborhood Connector			
<b>Length (lf):</b>	2,150			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	4,419	cy	\$ 17.00	\$ 75,131
241	6" Lime Stabilization (with Lime @ 32#/sy)	8,600	sy	\$ 4.00	\$ 34,400
341	11" Concrete Pavement	8,122	sy	\$ 55.00	\$ 446,722
441	6" Curb and Gutter	4,300	lf	\$ 7.00	\$ 30,100
541	4" Topsoil	6,211	sy	\$ 5.00	\$ 31,056
641	10' Concrete Sidewalk	43,000	sf	\$ 6.00	\$ 258,000
739	Auxiliary Lanes and Median Openings Allotment	366	sf	\$ 59.00	\$ 21,622

**Paving Construction Cost Subtotal: \$ 897,030**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 26,911
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 26,911
✓ Pavement Markings/Markers		3%	\$ 26,911
✓ Roadway Drainage	Standard Internal System	30%	\$ 269,109
✓ Illumination		2%	\$ 22,306
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 53,822
✓ Sewer	Minor Adjustments	4%	\$ 35,881
✓ Establish Turf / Erosion Control		2%	\$ 17,941
✓ Basic Landscaping		4%	\$ 35,881
Other:		\$0	\$ -

**Allowance Subtotal: \$ 515,673**

**Paving and Allowance Subtotal: \$ 1,412,703**

**Construction Contingency: 15% \$ 211,906**

**Construction Cost TOTAL: \$ 1,625,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,625,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 325,000
<b>Mobilization</b>		5%	\$ 81,250
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 162,500

**Impact Fee Project Cost TOTAL: \$ 2,194,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-12
<b>Name:</b>	Edward Geren (2)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>		
	4,570' N of Ten Mile Bridge to Ten			
<b>Limits:</b>	Mile Bridge			
<b>Impact Fee Class:</b>	NCO-L1-T0-TWLT-P0-BOP (80)			
<b>Ultimate Class:</b>	3 Lane Undivided Neighborhood Connector			
<b>Length (lf):</b>	4,570			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	9,394	cy	\$ 17.00	\$ 159,696
241	6" Lime Stabilization (with Lime @ 32#/sy)	18,280	sy	\$ 4.00	\$ 73,120
341	11" Concrete Pavement	17,264	sy	\$ 55.00	\$ 949,544
441	6" Curb and Gutter	9,140	lf	\$ 7.00	\$ 63,980
541	4" Topsoil	13,202	sy	\$ 5.00	\$ 66,011
641	10' Concrete Sidewalk	91,400	sf	\$ 6.00	\$ 548,400
739	Auxiliary Lanes and Median Openings Allotment	779	sf	\$ 59.00	\$ 45,960

**Paving Construction Cost Subtotal: \$ 1,906,711**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 57,201
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 57,201
✓ Roadway Drainage	Standard Internal System	30%	\$ 572,013
✓ Illumination		2%	\$ 47,414
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 114,403
✓ Sewer	Minor Adjustments	4%	\$ 76,268
✓ Establish Turf / Erosion Control		2%	\$ 38,134
✓ Basic Landscaping		4%	\$ 76,268
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,038,903**

**Paving and Allowance Subtotal: \$ 2,945,615**

**Construction Contingency: 15% \$ 441,842**

**Construction Cost TOTAL: \$ 3,388,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 3,388,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 677,600
<b>Mobilization</b>		5%	\$ 169,400
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 677,600

**Impact Fee Project Cost TOTAL: \$ 4,913,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-13
Name:	Hodgkins Ten Mile Bridge to Hatch	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	5,295			
Service Area(s):	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	10,884	cy	\$ 17.00	\$ 185,031
241	6" Lime Stabilization (with Lime @ 32#/sy)	21,180	sy	\$ 4.00	\$ 84,720
341	11" Concrete Pavement	20,003	sy	\$ 55.00	\$ 1,100,183
441	6" Curb and Gutter	10,590	lf	\$ 7.00	\$ 74,130
541	4" Topsoil	15,297	sy	\$ 5.00	\$ 76,483
641	10' Concrete Sidewalk	105,900	sf	\$ 6.00	\$ 635,400
739	Auxiliary Lanes and Median Openings Allotment	903	sf	\$ 59.00	\$ 53,251

**Paving Construction Cost Subtotal: \$ 2,209,198**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 66,276
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 66,276
✓ Pavement Markings/Markers		3%	\$ 66,276
✓ Roadway Drainage	Standard Internal System	30%	\$ 662,760
✓ Illumination		2%	\$ 54,935
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 132,552
✓ Sewer	Minor Adjustments	4%	\$ 88,368
✓ Establish Turf / Erosion Control		2%	\$ 44,184
✓ Basic Landscaping		4%	\$ 88,368
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,269,994**

**Paving and Allowance Subtotal: \$ 3,479,193**

**Construction Contingency: 15% \$ 521,879**

**Construction Cost TOTAL: \$ 4,002,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,002,000
Engineering/Survey/Testing:		20%	\$ 800,400
Mobilization		5%	\$ 200,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 400,200

**Impact Fee Project Cost TOTAL: \$ 5,403,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	G-14
Name:	Marine Creek (1) Old Decatur to 620' S of Old Decatur	<b>This project is currently under construction to become a four-lane divided neighborhood connector. The city budgeted \$7,657,444 to the overall project. This segment accounts for 10% (\$765,744).</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	620			
Service Area(s):	G			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	839,350
Engineering/Survey/Testing:			\$	34,735
Previous City contribution	Transportation Impact Fees Legacy Fund		\$	(170,000)
ROW/Easement Acquisition:			\$	61,659
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$</b>	<b>765,744</b>

**NOTE:** The impact free project cost for this current project is based on actual or budgeted construction costs provided by the City.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	G-15
Name:	Marine Creek (2) 620' S of Old Decatur Rd to Cromwell	<b>This project is currently under construction to become a four-lane divided neighborhood connector. The city budgeted \$7,657,444 to the overall project. This segment accounts for 20% (\$1,531,489).</b>		
Limits:	Marine Creek			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,235			
Service Area(s):	G			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	1,678,701
Engineering/Survey/Testing:			\$	69,469
Previous City contribution	Transportation Impact Fees Legacy Fund		\$	(340,000)
ROW/Easement Acquisition:			\$	123,319
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$</b>	<b>1,531,489</b>

**NOTE:** The impact free project cost for this current project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	G-16
Name:	Marine Creek (3) Cromwell Marine Creek to Longhorn	This project is currently under construction to become a four-lane divided neighborhood connector. The city budgeted \$7,657,444 to the overall project. This segment accounts for 21% (\$1,608,063).		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,295			
Service Area(s):	G			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:	Transportation Impact Fees Legacy Fund		\$	1,762,636
Engineering/Survey/Testing:			\$	72,943
Previous City contribution			\$	(357,000)
ROW/Easement Acquisition:			\$	129,484
Impact Fee Project Cost TOTAL:			\$	1,608,063

**NOTE:** The impact free project cost for this current project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	G-17
Name:	Marine Creek (4) Longhorn to 410' S of Goodland	<b>This project is currently under construction to become a four-lane divided neighborhood connector. The city budgeted \$7,657,444 to the overall project. This segment accounts for 45% (\$3,445,850).</b>		
Limits:				
Impact Fee Class:	CCO (E)			
Ultimate Class:	Established Commercial Connector			
Length (lf):	2,750			
Service Area(s):	G			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	3,777,077
Engineering/Survey/Testing:			\$	156,306
Previous City contribution	Transportation Impact Fees Legacy Fund		\$	(765,000)
ROW/Easement Acquisition:			\$	277,467
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$</b>	<b>3,445,850</b>

**NOTE:** The impact free project cost for this current project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-18
<b>Name:</b>	Marine Creek (5) Angle to FM 1220	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>		
<b>Limits:</b>				
<b>Impact Fee Class:</b>	NCO-L1-T0-TWLT-P0-BOP (80)			
<b>Ultimate Class:</b>	3 Lane Undivided Neighborhood Connector			
<b>Length (lf):</b>	5,310			
<b>Service Area(s):</b>	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	10,915	cy	\$ 17.00	\$ 185,555
241	6" Lime Stabilization (with Lime @ 32#/sy)	21,240	sy	\$ 4.00	\$ 84,960
341	11" Concrete Pavement	20,060	sy	\$ 55.00	\$ 1,103,300
441	6" Curb and Gutter	10,620	lf	\$ 7.00	\$ 74,340
541	4" Topsoil	15,340	sy	\$ 5.00	\$ 76,700
641	10' Concrete Sidewalk	106,200	sf	\$ 6.00	\$ 637,200
739	Auxiliary Lanes and Median Openings Allotment	905	sf	\$ 59.00	\$ 53,402

**Paving Construction Cost Subtotal: \$ 2,215,457**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 66,464
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 66,464
✓ Roadway Drainage	Standard Internal System	30%	\$ 664,637
✓ Illumination		2%	\$ 55,091
✓ Special Drainage Structures	Minor Stream Crossing(s)	\$ 192,500	\$ 192,500
✓ Water	Minor Adjustments	6%	\$ 132,927
✓ Sewer	Minor Adjustments	4%	\$ 88,618
✓ Establish Turf / Erosion Control		2%	\$ 44,309
✓ Basic Landscaping		4%	\$ 88,618
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,399,629**

**Paving and Allowance Subtotal: \$ 3,615,085**

**Construction Contingency: 15% \$ 542,263**

**Construction Cost TOTAL: \$ 4,158,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 4,158,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 831,600
<b>Mobilization</b>		5%	\$ 207,900
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 831,600

**Impact Fee Project Cost TOTAL: \$ 6,029,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-19
Name:	Old Decatur (2) River Rock to IH-820 WBFR	<b>This project consists of the construction of the western lanes to complete the four-lane divided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,565			
Service Area(s):	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	2,261	cy	\$ 17.00	\$ 38,429
231	6" Lime Stabilization (with Lime @ 32#/sy)	4,347	sy	\$ 4.00	\$ 17,389
331	11" Concrete Pavement	3,999	sy	\$ 55.00	\$ 219,969
431	6" Curb and Gutter	3,130	lf	\$ 7.00	\$ 21,910
531	4" Topsoil	3,826	sy	\$ 5.00	\$ 19,128
631	10' Concrete Sidewalk	15,650	sf	\$ 6.00	\$ 93,900
729	Auxiliary Lanes and Median Openings Allotment	628	sf	\$ 59.00	\$ 37,074

**Paving Construction Cost Subtotal: \$ 447,799**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 13,434
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 13,434
✓ Pavement Markings/Markers		3%	\$ 13,434
✓ Roadway Drainage	Standard Internal System	30%	\$ 134,340
✓ Illumination		2%	\$ 11,135
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 26,868
✓ Sewer	Minor Adjustments	4%	\$ 17,912
✓ Establish Turf / Erosion Control		2%	\$ 8,956
✓ Basic Landscaping		4%	\$ 17,912
Other:		\$0	\$ -

**Allowance Subtotal: \$ 257,425**

**Paving and Allowance Subtotal: \$ 705,224**

**Construction Contingency: 15% \$ 105,784**

**Construction Cost TOTAL: \$ 812,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 812,000
Engineering/Survey/Testing:		20%	\$ 162,400
Mobilization		5%	\$ 40,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 81,200

**Impact Fee Project Cost TOTAL: \$ 1,096,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	G-20
Name:	Old Decatur (3) IH-820 EBFR to 890' N Of Angle	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,340			
Service Area(s):	G			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	9,649	cy	\$ 17.00	\$ 164,031
230	6" Lime Stabilization (with Lime @ 32#/sy)	18,556	sy	\$ 4.00	\$ 74,222
330	11" Concrete Pavement	17,071	sy	\$ 55.00	\$ 938,911
430	6" Curb and Gutter	13,360	lf	\$ 7.00	\$ 93,520
530	4" Topsoil	16,329	sy	\$ 5.00	\$ 81,644
630	10' Concrete Sidewalk	66,800	sf	\$ 6.00	\$ 400,800
728	Auxiliary Lanes and Median Openings Allotment	1,341	sf	\$ 59.00	\$ 79,123

**Paving Construction Cost Subtotal: \$ 1,832,251**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 54,968
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 54,968
✓ Pavement Markings/Markers		3%	\$ 54,968
✓ Roadway Drainage	Standard Internal System	30%	\$ 549,675
✓ Illumination		2%	\$ 45,562
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 109,935
✓ Sewer	Minor Adjustments	4%	\$ 73,290
✓ Establish Turf / Erosion Control		2%	\$ 36,645
✓ Basic Landscaping		4%	\$ 73,290
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,053,300**

**Paving and Allowance Subtotal: \$ 2,885,552**

**Construction Contingency: 15% \$ 432,833**

**Construction Cost TOTAL: \$ 3,319,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,319,000
Engineering/Survey/Testing:		20%	\$ 663,800
Mobilization		5%	\$ 165,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 331,900

**Impact Fee Project Cost TOTAL: \$ 4,481,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**Appendix A - Service Area L**

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Transportation Improvements Plan for Transportation Impact Fees

### Appendix A - Summary of Conceptual Level Project Cost Projections

#### Roadway/Intersection Improvements - Service Area L

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
L-1	NCO (E)	1st (1)	Beach to 1,345' E of Beach	Previous	100%	\$ 457,890	\$ 457,890
L-2	NCO (E)	1st (2)	1,345' E of Beach to 5,290' E of Beach	Previous	100%	\$ 1,343,143	\$ 1,343,143
L-3	NCO (E)	1st (3)	3,630' W of Oakland to Oakland	Previous	100%	\$ 1,251,565	\$ 1,251,565
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	1st	Beach	Retrofit	50%	\$ 180,000	\$ 90,000
	Turn Lane Improvements	Bridge	Bridgewood	Retrofit	100%	\$ 180,000	\$ 180,000
	Turn Lane Improvements	Randol Mill	Bridgewood	Retrofit	100%	\$ 590,000	\$ 590,000
	Turn Lane Improvements	Randol Mill	Woodhaven	Retrofit	100%	\$ 360,000	\$ 360,000
	Roundabout	1st	Oakland	Retrofit	100%	\$ 2,500,000	\$ 2,500,000

#### NOTES:

1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.
2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	L-1
Name:	1st (1)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$3,052,598 overall to this project. This segment accounts for 15% (\$457,890) of the overall project.</b>		
Limits:	Beach to 1,345' E of Beach			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	1,345			
Service Area(s):	L			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 176,767
Engineering/Survey/Testing:			\$ 180,650
ROW/Easement Acquisition:			\$ 100,473
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 457,890</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	L-2
Name:	1st (2)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$3,052,598 overall to this project. This segment accounts for 44% (\$1,343,143) of the overall project.</b>		
Limits:	1,345' E of Beach to 5,290' E of Beach			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	3,945			
Service Area(s):	L			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 518,516
Engineering/Survey/Testing:			\$ 529,906
ROW/Easement Acquisition:			\$ 294,722
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,343,143</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	L-3
Name:	1st (3)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$3,052,598 overall to this project. This segment accounts for 41% (\$1,251,565) of the overall project.</b>		
Limits:	3,630' W of Oakland to Oakland			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	3,630			
Service Area(s):	L			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 483,162
Engineering/Survey/Testing:			\$ 493,776
ROW/Easement Acquisition:			\$ 274,627
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,251,565</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**Appendix A – Service Area M**



City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area M

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
M-1	CCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (1)	SH 10 to Raider	Widening	100%	\$ 1,550,000	\$1,550,000
M-2	CMU-L2-T0-TWLT-P0-BLC (110)	Trinity (1)	IH-820 NBFR to 1,550' W of Precinct Line	Widening	100%	\$ 11,416,000	\$11,416,000
M-3	CMU-L2-T0-NTMS-P0-BLC (110)	Trinity (2)	1,550' W of Precinct Line to Precinct Line	Previous	100%	\$ 647,647	\$647,647
M-4	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (3)	Precinct Line to 545' E of Precinct Line	Previous	100%	\$ 215,882	\$215,882
M-5	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (4)	545' E of Precinct Line to Norwood	Widening	100%	\$ 8,238,000	\$8,238,000
M-6	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (5)	Norwood to 1,500' E of Norwood	Widening	100%	\$ 3,231,000	\$3,231,000
M-7	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (6)	1,565' W of Bell Spur to Bell Spur	Widening	100%	\$ 2,319,000	\$2,319,000
M-8	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Trinity (7)	Bell Spur to 2,950' E of Bell Spur	Widening	100%	\$ 6,714,000	\$6,714,000
M-9	NCO-L1-T0-TWLT-P0-BLC (80)	Randol Mill (1)	Stoneview to Sandy	Widening	100%	\$ 6,413,000	\$6,413,000
M-10	NCO-L1-T0-TWLT-P0-BLC (80)	Randol Mill (2)	Sandy to Cooks	Widening	100%	\$ 3,571,000	\$3,571,000
M-11	NCO-L2-T0-NTMS-P0-BLS (110)	Randol Mill (3)	Cooks to Lowery	New	100%	\$ 7,798,000	\$7,798,000
M-12	NCO-L2-T0-NTMS-P0-BLS (110)	Randol Mill (4)	Lowery to 880' E of Lowery	Widening	100%	\$ 1,204,000	\$1,204,000
M-13	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)	Randol Mill (5)	880' E of Lowery to Racquet Club	Widening	100%	\$ 942,000	\$942,000
M-14	NCO-L1-T0-TWLT-P0-BOP (80)	Sandy (1)	Randol Mill to 370' S of Randol Mill	New	100%	\$ 639,000	\$639,000
M-15	NCO-L1-T0-TWLT-P0-BOP (80)	Sandy (2)	370' S of Randol Mill to John T White	Widening	100%	\$ 5,289,000	\$5,289,000
M-16	NCO-L2-T0-TWLT-P0-BOP (110)	Sandy (3)	John T. White to IH-30	Widening	100%	\$ 5,396,000	\$5,396,000
M-17	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (1)	1825' N of Trinity to Trinity	Previous	100%	\$ 743,594	\$743,594
M-18	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (2)	Trinity to 1,955' S of Trinity	Previous	100%	\$ 791,568	\$791,568
M-19	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (3)	1,955' S of Trinity to Randol Mill	Widening	100%	\$ 11,987,000	\$11,987,000
M-20	NCO-L2-T0-NTMS-P0-BOP (110)	Precinct Line (4)	Randol Mill (Existing) to 1,815' S of Randol Mill (Existing)	New	100%	\$ 2,938,000	\$2,938,000
M-21	NCO-L1-T0-TWLT-P0-BOP (80)	Cooks (1)	1,815' S of Randol Mill to 690' S of Lowery	New	100%	\$ 3,058,000	\$3,058,000
M-22	CCO-L1-T0-TWLT-P0-BOP (80)	Norwood (1)	SH 10 to Railroad	Widening	100%	\$ 1,993,000	\$1,993,000
M-23	CCO-L1-T0-TWLT-P0-BOP (80)	Norwood (2)	Railroad to Trinity	Previous	100%	\$ 1,000,000	\$1,000,000
M-24	NCO-L2-T0-NTMS-P0-BOP (110)	Greenbelt Rd	Trinity to 8885' S of Trinity	Widening	100%	\$ 14,247,000	\$14,247,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Roundabout	John T White	Cooks	Retrofit	100%	\$ 2,500,000	\$2,500,000
	Turn Lane Improvements	John T White	Randol Mill	Retrofit	100%	\$ 720,000	\$720,000
	Roundabout	John T White	Sandy	Rebuild	100%	\$ 1,500,000	\$1,500,000
	Roundabout	Precinct Line	Randol Mill	New	100%	\$ 1,000,000	\$1,000,000
	Roundabout	Randol Mill	Sandy	Rebuild	100%	\$ 1,500,000	\$1,500,000
	Turn Lane Improvements	Trinity	Bell Spur	Rebuild	100%	\$ 100,000	\$100,000
	Turn Lane Improvements	Trinity	Norwood	Rebuild	100%	\$ 300,000	\$300,000

**NOTES:**  
1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.  
2. Intersection Improvements were identified based on impact fee project status, MTP classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-1
Name:	Pipeline (1) SH 10 to Raider	<b>This project consists of the reconstruction of the existing concrete facility as a three-lane undivided commercial connector.</b>		
Limits:				
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	1,470			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	3,185	cy	\$ 17.00	\$ 54,145
239	6" Lime Stabilization (with Lime @ 32#/sy)	6,207	sy	\$ 4.00	\$ 24,827
339	11" Concrete Pavement	5,880	sy	\$ 55.00	\$ 323,400
439	6" Curb and Gutter	2,940	lf	\$ 7.00	\$ 20,580
539	4" Topsoil	3,920	sy	\$ 5.00	\$ 19,600
639	10' Concrete Sidewalk	29,400	sf	\$ 6.00	\$ 176,400
737	Auxiliary Lanes and Median Openings Allotment	251	sf	\$ 59.00	\$ 14,784
Paving Construction Cost Subtotal:					\$ 633,735
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	19,012
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	19,012
✓	Pavement Markings/Markers		3%	\$	19,012
✓	Roadway Drainage	Standard Internal System	30%	\$	190,121
✓	Illumination		2%	\$	15,759
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	38,024
✓	Sewer	Minor Adjustments	4%	\$	25,349
✓	Establish Turf / Erosion Control		2%	\$	12,675
✓	Basic Landscaping		4%	\$	25,349
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 364,313
Paving and Allowance Subtotal:					\$ 998,048
Construction Contingency:					15% \$ 149,707
Construction Cost TOTAL:					\$ 1,148,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,148,000
Engineering/Survey/Testing:		20%	\$ 229,600
Mobilization		5%	\$ 57,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 114,800
Impact Fee Project Cost TOTAL:			\$ 1,550,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-2
Name:	Trinity (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commerce/mixed-use street.</b>		
Limits:	IH-820 NBFR to 1,550' W of Precinct Line			
Impact Fee Class:	CMU-L2-T0-TWLT-P0-BLC (110)			
Ultimate Class:	5 Lane Undivided Commerce/Mixed-Use Street			
Length (lf):	7,135			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
127	Unclassified Street Excavation	28,144	cy	\$ 17.00	\$ 478,441
227	6" Lime Stabilization (with Lime @ 32#/sy)	55,494	sy	\$ 4.00	\$ 221,978
327	11" Concrete Pavement	53,909	sy	\$ 55.00	\$ 2,964,989
427	6" Curb and Gutter	14,270	lf	\$ 7.00	\$ 99,890
527	4" Topsoil	23,783	sy	\$ 5.00	\$ 118,917
627	6' Concrete Sidewalk	85,620	sf	\$ 6.00	\$ 513,720
725	Auxiliary Lanes and Median Openings Allotment	1,216	sf	\$ 59.00	\$ 71,755
Paving Construction Cost Subtotal:					\$ 4,469,690
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	134,091
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	134,091
✓	Pavement Markings/Markers		3%	\$	134,091
✓	Roadway Drainage	Standard Internal System	30%	\$	1,340,907
✓	Illumination		2%	\$	111,146
✓	Special Drainage Structures	Minor Stream Crossing(s)	\$ 313,875	\$	313,875
✓	Water	Minor Adjustments	6%	\$	268,181
✓	Sewer	Minor Adjustments	4%	\$	178,788
✓	Establish Turf / Erosion Control		2%	\$	89,394
✓	Basic Landscaping		4%	\$	178,788
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,883,351
Paving and Allowance Subtotal:					\$ 7,353,041
Construction Contingency:					15% \$ 1,102,956
Construction Cost TOTAL:					\$ 8,456,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,456,000
Engineering/Survey/Testing:		20%	\$ 1,691,200
Mobilization		5%	\$ 422,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 845,600
Impact Fee Project Cost TOTAL:			\$ 11,416,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	M-3
Name:	Trinity (2)	<b>This project was included in the reconstruction of Precinct Line, in which the existing asphalt facility was reconstructed to a four-lane divided commerce/mixed use street. The City contributed \$2,398,691 overall to Precinct Line. This segment accounts for 27% (\$647,647) of the overall project.</b>		
Limits:	1,550' W of Precinct Line to Precinct Line			
Impact Fee Class:	CMU-L2-T0-NTMS-P0-BLC (110)			
Ultimate Class:	4 Lane Divided Commerce/Mixed-Use Street			
Length (lf):	1,550			
Service Area(s):	M			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 112,360
Engineering/Survey/Testing:			\$ 235,791
ROW/Easement Acquisition:			\$ 299,496
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 647,647</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	M-4
Name:	Trinity (3)	<b>This project was included in the reconstruction of Precinct Line, in which the existing asphalt facility was reconstructed to a four-lane divided system link. The City contributed \$2,398,691 overall to Precinct Line. This segment accounts for 9% (\$215,882) of the overall project.</b>		
Limits:	Precinct Line to 545' E of Precinct Line			
Impact Fee Class:	SYS-L3-T0-NTMW-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided System Link			
Length (lf):	545			
Service Area(s):	M			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 37,453
Engineering/Survey/Testing:			\$ 78,597
ROW/Easement Acquisition:			\$ 99,832
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 215,882</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-5
Name:	Trinity (4)	<b>This project consists of the reconstruction of the existing four-lane undivided asphalt facility as a four-lane divided system link with a wide median.</b>		
Limits:	545' E of Precinct Line to Norwood			
Impact Fee Class:	SYS-L3-T0-NTMW-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided System Link			
Length (lf):	3,975			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
119	Unclassified Street Excavation	16,783	cy	\$ 17.00	\$ 285,317
219	6" Lime Stabilization (with Lime @ 32#/sy)	22,967	sy	\$ 4.00	\$ 91,867
319	11" Concrete Pavement	21,200	sy	\$ 55.00	\$ 1,166,000
419	6" Curb and Gutter	15,900	lf	\$ 7.00	\$ 111,300
519	4" Topsoil	26,500	sy	\$ 5.00	\$ 132,500
619	11' Concrete Sidewalk	87,450	sf	\$ 6.00	\$ 524,700
717	Auxiliary Lanes and Median Openings Allotment	1,777	sf	\$ 59.00	\$ 104,826
Paving Construction Cost Subtotal:					\$ 2,416,509
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	72,495
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	72,495
✓	Pavement Markings/Markers		3%	\$	72,495
✓	Roadway Drainage	Standard Internal System	30%	\$	724,953
✓	Illumination		2%	\$	60,091
✓	Special Drainage Structures	Major Drainage Crossing	\$ 1,500,000	\$	1,500,000
✓	Water	Minor Adjustments	6%	\$	144,991
✓	Sewer	Minor Adjustments	4%	\$	96,660
✓	Establish Turf / Erosion Control		2%	\$	48,330
✓	Basic Landscaping		4%	\$	96,660
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,889,170
Paving and Allowance Subtotal:					\$ 5,305,679
Construction Contingency:					15% \$ 795,852
Construction Cost TOTAL:					\$ 6,102,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,102,000
Engineering/Survey/Testing:		20%	\$ 1,220,400
Mobilization		5%	\$ 305,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 610,200
Impact Fee Project Cost TOTAL:			\$ 8,238,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-6
Name:	Trinity (5) Norwood to 1,500' E of Norwood	<b>This project consists of the reconstruction of the existing four-lane undivided asphalt facility as a four-lane divided system link with a wide median.</b>		
Limits:				
Impact Fee Class:	SYS-L3-T0-NTMW-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided System Link			
Length (lf):	1,500			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
119	Unclassified Street Excavation	6,333	cy	\$ 17.00	\$ 107,667
219	6" Lime Stabilization (with Lime @ 32#/sy)	8,667	sy	\$ 4.00	\$ 34,667
319	11" Concrete Pavement	8,000	sy	\$ 55.00	\$ 440,000
419	6" Curb and Gutter	6,000	lf	\$ 7.00	\$ 42,000
519	4" Topsoil	10,000	sy	\$ 5.00	\$ 50,000
619	11' Concrete Sidewalk	33,000	sf	\$ 6.00	\$ 198,000
717	Auxiliary Lanes and Median Openings Allotment	670	sf	\$ 59.00	\$ 39,557
Paving Construction Cost Subtotal:					\$ 911,890
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	27,357
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	27,357
✓	Pavement Markings/Markers		3%	\$	27,357
✓	Roadway Drainage	Standard Internal System	30%	\$	273,567
✓	Illumination		2%	\$	22,676
✓	Special Drainage Structures	Drainage Crossing(s)	\$ 644,000	\$	644,000
✓	Water	Minor Adjustments	6%	\$	54,713
✓	Sewer	Minor Adjustments	4%	\$	36,476
✓	Establish Turf / Erosion Control		2%	\$	18,238
✓	Basic Landscaping		4%	\$	36,476
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,168,215
Paving and Allowance Subtotal:					\$ 2,080,105
Construction Contingency:					15% \$ 312,016
Construction Cost TOTAL:					\$ 2,393,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,393,000
Engineering/Survey/Testing:		20%	\$ 478,600
Mobilization		5%	\$ 119,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 239,300
Impact Fee Project Cost TOTAL:			\$ 3,231,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
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Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-7
Name:	Trinity (6)	<b>This project consists of the reconstruction of the existing four-lane undivided asphalt facility as a four-lane divided system link with a wide median.</b>		
Limits:	1,565' W of Bell Spur to Bell Spur			
Impact Fee Class:	SYS-L3-T0-NTMW-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided System Link			
Length (lf):	1,560			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
119	Unclassified Street Excavation	6,587	cy	\$ 17.00	\$ 111,973
219	6" Lime Stabilization (with Lime @ 32#/sy)	9,013	sy	\$ 4.00	\$ 36,053
319	11" Concrete Pavement	8,320	sy	\$ 55.00	\$ 457,600
419	6" Curb and Gutter	6,240	lf	\$ 7.00	\$ 43,680
519	4" Topsoil	10,400	sy	\$ 5.00	\$ 52,000
619	11' Concrete Sidewalk	34,320	sf	\$ 6.00	\$ 205,920
717	Auxiliary Lanes and Median Openings Allotment	697	sf	\$ 59.00	\$ 41,139
Paving Construction Cost Subtotal:					\$ 948,366
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	28,451
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	28,451
✓	Pavement Markings/Markers		3%	\$	28,451
✓	Roadway Drainage	Standard Internal System	30%	\$	284,510
✓	Illumination		2%	\$	23,583
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	56,902
✓	Sewer	Minor Adjustments	4%	\$	37,935
✓	Establish Turf / Erosion Control		2%	\$	18,967
✓	Basic Landscaping		4%	\$	37,935
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 545,184
Paving and Allowance Subtotal:					\$ 1,493,550
Construction Contingency:					15% \$ 224,032
Construction Cost TOTAL:					\$ 1,718,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,718,000
Engineering/Survey/Testing:		20%	\$ 343,600
Mobilization		5%	\$ 85,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 171,800
Impact Fee Project Cost TOTAL:			\$ 2,319,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
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Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-8
Name:	Trinity (7)	<b>This project consists of the reconstruction of the existing four-lane undivided asphalt facility as a four-lane divided system link with a wide median.</b>		
Limits:	Bell Spur to 2,950' E of Bell Spur			
Impact Fee Class:	SYS-L3-T0-NTMW-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided System Link			
Length (lf):	2,950			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
119	Unclassified Street Excavation	12,456	cy	\$ 17.00	\$ 211,744
219	6" Lime Stabilization (with Lime @ 32#/sy)	17,044	sy	\$ 4.00	\$ 68,178
319	11" Concrete Pavement	15,733	sy	\$ 55.00	\$ 865,333
419	6" Curb and Gutter	11,800	lf	\$ 7.00	\$ 82,600
519	4" Topsoil	19,667	sy	\$ 5.00	\$ 98,333
619	11' Concrete Sidewalk	64,900	sf	\$ 6.00	\$ 389,400
717	Auxiliary Lanes and Median Openings Allotment	1,319	sf	\$ 59.00	\$ 77,795
Paving Construction Cost Subtotal:					\$ 1,793,384
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	53,802
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	53,802
✓	Pavement Markings/Markers		3%	\$	53,802
✓	Roadway Drainage	Standard Internal System	30%	\$	538,015
✓	Illumination		2%	\$	44,595
✓	Special Drainage Structures	Major Drainage Crossing	\$ 1,500,000	\$	1,500,000
✓	Water	Minor Adjustments	6%	\$	107,603
✓	Sewer	Minor Adjustments	4%	\$	71,735
✓	Establish Turf / Erosion Control		2%	\$	35,868
✓	Basic Landscaping		4%	\$	71,735
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,530,957
Paving and Allowance Subtotal:					\$ 4,324,341
Construction Contingency:					15% \$ 648,651
Construction Cost TOTAL:					\$ 4,973,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,973,000
Engineering/Survey/Testing:		20%	\$ 994,600
Mobilization		5%	\$ 248,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 497,300
Impact Fee Project Cost TOTAL:			\$ 6,714,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-9
Name:	Randol Mill (1) Stoneview to Sandy	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BLC (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	5,035			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
140	Unclassified Street Excavation	13,706	cy	\$ 17.00	\$ 233,009
240	6" Lime Stabilization (with Lime @ 32#/sy)	26,853	sy	\$ 4.00	\$ 107,413
340	11" Concrete Pavement	25,734	sy	\$ 55.00	\$ 1,415,394
440	6" Curb and Gutter	10,070	lf	\$ 7.00	\$ 70,490
540	4" Topsoil	12,308	sy	\$ 5.00	\$ 61,539
640	6' Concrete Sidewalk	60,420	sf	\$ 6.00	\$ 362,520
738	Auxiliary Lanes and Median Openings Allotment	858	sf	\$ 59.00	\$ 50,636
Paving Construction Cost Subtotal:					\$ 2,301,001
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	69,030
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	69,030
✓	Pavement Markings/Markers		3%	\$	69,030
✓	Roadway Drainage	Standard Internal System	30%	\$	690,300
✓	Illumination		2%	\$	57,218
✓	Special Drainage Structures	Drainage Crossing(s)	\$ 506,250	\$	506,250
✓	Water	Minor Adjustments	6%	\$	138,060
✓	Sewer	Minor Adjustments	4%	\$	92,040
✓	Establish Turf / Erosion Control		2%	\$	46,020
✓	Basic Landscaping		4%	\$	92,040
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,829,019
Paving and Allowance Subtotal:					\$ 4,130,020
Construction Contingency:					15% \$ 619,503
Construction Cost TOTAL:					\$ 4,750,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,750,000
Engineering/Survey/Testing:		20%	\$ 950,000
Mobilization		5%	\$ 237,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 475,000
Impact Fee Project Cost TOTAL:			\$ 6,413,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-10
Name:	Randol Mill (2) Sandy to Cooks	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BLC (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	2,885			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
140	Unclassified Street Excavation	7,854	cy	\$ 17.00	\$ 133,511
240	6" Lime Stabilization (with Lime @ 32#/sy)	15,387	sy	\$ 4.00	\$ 61,547
340	11" Concrete Pavement	14,746	sy	\$ 55.00	\$ 811,006
440	6" Curb and Gutter	5,770	lf	\$ 7.00	\$ 40,390
540	4" Topsoil	7,052	sy	\$ 5.00	\$ 35,261
640	6' Concrete Sidewalk	34,620	sf	\$ 6.00	\$ 207,720
738	Auxiliary Lanes and Median Openings Allotment	492	sf	\$ 59.00	\$ 29,014
Paving Construction Cost Subtotal:					\$ 1,318,449
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	39,553
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	39,553
✓	Pavement Markings/Markers		3%	\$	39,553
✓	Roadway Drainage	Standard Internal System	30%	\$	395,535
✓	Illumination		2%	\$	32,785
✓	Special Drainage Structures	Minor Stream Crossing(s)	\$ 222,750	\$	222,750
✓	Water	Minor Adjustments	6%	\$	79,107
✓	Sewer	Minor Adjustments	4%	\$	52,738
✓	Establish Turf / Erosion Control		2%	\$	26,369
✓	Basic Landscaping		4%	\$	52,738
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 980,682
Paving and Allowance Subtotal:					\$ 2,299,131
Construction Contingency:					15% \$ 344,870
Construction Cost TOTAL:					\$ 2,645,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,645,000
Engineering/Survey/Testing:		20%	\$ 529,000
Mobilization		5%	\$ 132,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 264,500
Impact Fee Project Cost TOTAL:			\$ 3,571,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-11
Name:	Randol Mill (3) Cooks to Lowery	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	5,410			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	15,629	cy	\$ 17.00	\$ 265,691
228	6" Lime Stabilization (with Lime @ 32#/sy)	30,056	sy	\$ 4.00	\$ 120,222
328	11" Concrete Pavement	27,651	sy	\$ 55.00	\$ 1,520,811
428	6" Curb and Gutter	21,640	lf	\$ 7.00	\$ 151,480
528	4" Topsoil	25,247	sy	\$ 5.00	\$ 126,233
628	11' Concrete Sidewalk	119,020	sf	\$ 6.00	\$ 714,120
726	Auxiliary Lanes and Median Openings Allotment	2,172	sf	\$ 59.00	\$ 128,160
Paving Construction Cost Subtotal:					\$ 3,026,717
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	90,802
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	90,802
✓	Roadway Drainage	Standard Internal System	30%	\$	908,015
✓	Illumination		2%	\$	75,264
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	181,603
✓	Sewer	Minor Adjustments	4%	\$	121,069
✓	Establish Turf / Erosion Control		2%	\$	60,534
✓	Basic Landscaping		4%	\$	121,069
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,649,157
Paving and Allowance Subtotal:					\$ 4,675,875
Construction Contingency:					15% \$ 701,381
Construction Cost TOTAL:					\$ 5,378,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,378,000
Engineering/Survey/Testing:		20%	\$ 1,075,600
Mobilization		5%	\$ 268,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,075,600
Impact Fee Project Cost TOTAL:			\$ 7,798,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-12
Name:	Randol Mill (4) Lowery to 880' E of Lowery	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	880			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	2,542	cy	\$ 17.00	\$ 43,218
228	6" Lime Stabilization (with Lime @ 32#/sy)	4,889	sy	\$ 4.00	\$ 19,556
328	11" Concrete Pavement	4,498	sy	\$ 55.00	\$ 247,378
428	6" Curb and Gutter	3,520	lf	\$ 7.00	\$ 24,640
528	4" Topsoil	4,107	sy	\$ 5.00	\$ 20,533
628	11' Concrete Sidewalk	19,360	sf	\$ 6.00	\$ 116,160
726	Auxiliary Lanes and Median Openings Allotment	353	sf	\$ 59.00	\$ 20,847
Paving Construction Cost Subtotal:					\$ 492,331
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	14,770
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	14,770
✓	Pavement Markings/Markers		3%	\$	14,770
✓	Roadway Drainage	Standard Internal System	30%	\$	147,699
✓	Illumination		2%	\$	12,243
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	29,540
✓	Sewer	Minor Adjustments	4%	\$	19,693
✓	Establish Turf / Erosion Control		2%	\$	9,847
✓	Basic Landscaping		4%	\$	19,693
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 283,025
Paving and Allowance Subtotal:					\$ 775,356
Construction Contingency:					15% \$ 116,303
Construction Cost TOTAL:					\$ 892,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 892,000
Engineering/Survey/Testing:		20%	\$ 178,400
Mobilization		5%	\$ 44,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 89,200
Impact Fee Project Cost TOTAL:			\$ 1,204,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-13
Name:	Randol Mill (5) 880' E of Lowery to Racquet Club	<b>This project consists of the reconstruction of the northbound lanes to complete the four-lane divided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,320			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
129	Unclassified Street Excavation	1,907	cy	\$ 17.00	\$ 32,413
229	6" Lime Stabilization (with Lime @ 32#/sy)	3,667	sy	\$ 4.00	\$ 14,667
329	11" Concrete Pavement	3,373	sy	\$ 55.00	\$ 185,533
429	6" Curb and Gutter	2,640	lf	\$ 7.00	\$ 18,480
529	4" Topsoil	3,080	sy	\$ 5.00	\$ 15,400
629	11' Concrete Sidewalk	14,520	sf	\$ 6.00	\$ 87,120
727	Auxiliary Lanes and Median Openings Allotment	530	sf	\$ 59.00	\$ 31,270
Paving Construction Cost Subtotal:					\$ 384,883
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	11,547
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	11,547
✓	Pavement Markings/Markers		3%	\$	11,547
✓	Roadway Drainage	Standard Internal System	30%	\$	115,465
✓	Illumination		2%	\$	9,571
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	23,093
✓	Sewer	Minor Adjustments	4%	\$	15,395
✓	Establish Turf / Erosion Control		2%	\$	7,698
✓	Basic Landscaping		4%	\$	15,395
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 221,257
Paving and Allowance Subtotal:					\$ 606,140
Construction Contingency:					15% \$ 90,921
Construction Cost TOTAL:					\$ 698,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 698,000
Engineering/Survey/Testing:		20%	\$ 139,600
Mobilization		5%	\$ 34,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 69,800
Impact Fee Project Cost TOTAL:			\$ 942,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Sandy (1) Randol Mill to 370' S of Randol Mill	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>	<b>M-14</b>
Limits:			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	370		
Service Area(s):	M		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	761	cy	\$ 17.00	\$ 12,929
241	6" Lime Stabilization (with Lime @ 32#/sy)	1,480	sy	\$ 4.00	\$ 5,920
341	11" Concrete Pavement	1,398	sy	\$ 55.00	\$ 76,878
441	6" Curb and Gutter	740	lf	\$ 7.00	\$ 5,180
541	4" Topsoil	1,069	sy	\$ 5.00	\$ 5,344
641	10' Concrete Sidewalk	7,400	sf	\$ 6.00	\$ 44,400
739	Auxiliary Lanes and Median Openings Allotment	63	sf	\$ 59.00	\$ 3,721
Paving Construction Cost Subtotal:					\$ 154,373
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	4,631
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	4,631
✓	Roadway Drainage	Standard Internal System	30%	\$	46,312
✓	Illumination		2%	\$	3,839
✓	Special Drainage Structures	Minor Stream Crossing(s)	\$ 144,375	\$	144,375
✓	Water	Minor Adjustments	6%	\$	9,262
✓	Sewer	Minor Adjustments	4%	\$	6,175
✓	Establish Turf / Erosion Control		2%	\$	3,087
✓	Basic Landscaping		4%	\$	6,175
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 228,488
Paving and Allowance Subtotal:					\$ 382,860
Construction Contingency:					15% \$ 57,429
Construction Cost TOTAL:					\$ 441,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 441,000
Engineering/Survey/Testing:		20%	\$ 88,200
Mobilization		5%	\$ 22,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 88,200
Impact Fee Project Cost TOTAL:			\$ 639,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-15
Name:	Sandy (2) 370' S of Randol Mill to John T White	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	5,185			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	10,658	cy	\$ 17.00	\$ 181,187
241	6" Lime Stabilization (with Lime @ 32#/sy)	20,740	sy	\$ 4.00	\$ 82,960
341	11" Concrete Pavement	19,588	sy	\$ 55.00	\$ 1,077,328
441	6" Curb and Gutter	10,370	lf	\$ 7.00	\$ 72,590
541	4" Topsoil	14,979	sy	\$ 5.00	\$ 74,894
641	10' Concrete Sidewalk	103,700	sf	\$ 6.00	\$ 622,200
739	Auxiliary Lanes and Median Openings Allotment	884	sf	\$ 59.00	\$ 52,145
Paving Construction Cost Subtotal:					\$ 2,163,304
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	64,899
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	64,899
✓	Pavement Markings/Markers		3%	\$	64,899
✓	Roadway Drainage	Standard Internal System	30%	\$	648,991
✓	Illumination		2%	\$	53,794
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	129,798
✓	Sewer	Minor Adjustments	4%	\$	86,532
✓	Establish Turf / Erosion Control		2%	\$	43,266
✓	Basic Landscaping		4%	\$	86,532
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,243,611
Paving and Allowance Subtotal:					\$ 3,406,915
Construction Contingency:					15% \$ 511,037
Construction Cost TOTAL:					\$ 3,918,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,918,000
Engineering/Survey/Testing:		20%	\$ 783,600
Mobilization		5%	\$ 195,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 391,800
Impact Fee Project Cost TOTAL:			\$ 5,289,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Sandy (3) John T. White to IH-30	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	<b>M-16</b>
Limits:			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	2,350		
Service Area(s):	M		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	7,703	cy	\$ 17.00	\$ 130,947
233	6" Lime Stabilization (with Lime @ 32#/sy)	15,144	sy	\$ 4.00	\$ 60,578
333	11" Concrete Pavement	14,622	sy	\$ 55.00	\$ 804,222
433	6" Curb and Gutter	4,700	lf	\$ 7.00	\$ 32,900
533	4" Topsoil	8,878	sy	\$ 5.00	\$ 44,389
633	10' Concrete Sidewalk	47,000	sf	\$ 6.00	\$ 282,000
731	Auxiliary Lanes and Median Openings Allotment	401	sf	\$ 59.00	\$ 23,634
Paving Construction Cost Subtotal:					\$ 1,378,670
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	41,360
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	41,360
✓	Pavement Markings/Markers		3%	\$	41,360
✓	Roadway Drainage	Standard Internal System	30%	\$	413,601
✓	Illumination		2%	\$	34,283
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	82,720
✓	Sewer	Minor Adjustments	4%	\$	55,147
✓	Establish Turf / Erosion Control		2%	\$	27,573
✓	Basic Landscaping		4%	\$	55,147
✓	Other:	IH-30 Allotment	\$1,500,000	\$	1,500,000
Allowance Subtotal:					\$ 2,292,551
Paving and Allowance Subtotal:					\$ 3,671,221
Construction Contingency:					15% \$ 325,683
Construction Cost TOTAL:					\$ 3,997,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,997,000
Engineering/Survey/Testing:		20%	\$ 799,400
Mobilization		5%	\$ 199,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 399,700
Impact Fee Project Cost TOTAL:			\$ 5,396,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	M-17
Name:	Precinct Line (1) 1825' N of Trinity to Trinity	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$2,398,691 overall to this project. This segment accounts for 31% (\$743,594) of the overall project.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,825			
Service Area(s):	M			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 129,006
Engineering/Survey/Testing:			\$ 270,723
ROW/Easement Acquisition:			\$ 343,866
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 743,594</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	M-18
Name:	Precinct Line (2) Trinity to 1,955' S of Trinity	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$2,398,691 overall to this project. This segment accounts for 33% (\$791,568) of the overall project.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,955			
Service Area(s):	M			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 137,329
Engineering/Survey/Testing:			\$ 288,189
ROW/Easement Acquisition:			\$ 366,050
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 791,568</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-19
Name:	Precinct Line (3) 1,955' S of Trinity to Randol Mill	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	7,200			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	20,800	cy	\$ 17.00	\$ 353,600
230	6" Lime Stabilization (with Lime @ 32#/sy)	40,000	sy	\$ 4.00	\$ 160,000
330	11" Concrete Pavement	36,800	sy	\$ 55.00	\$ 2,024,000
430	6" Curb and Gutter	28,800	lf	\$ 7.00	\$ 201,600
530	4" Topsoil	35,200	sy	\$ 5.00	\$ 176,000
630	10' Concrete Sidewalk	144,000	sf	\$ 6.00	\$ 864,000
728	Auxiliary Lanes and Median Openings Allotment	2,891	sf	\$ 59.00	\$ 170,564
Paving Construction Cost Subtotal:					\$ 3,949,764
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	118,493
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	118,493
✓	Pavement Markings/Markers		3%	\$	118,493
✓	Roadway Drainage	Standard Internal System	30%	\$	1,184,929
✓	Illumination		2%	\$	98,217
✓	Special Drainage Structures	Cross Trinity River	\$ 1,500,000	\$	1,500,000
✓	Water	Minor Adjustments	6%	\$	236,986
✓	Sewer	Minor Adjustments	4%	\$	157,991
✓	Establish Turf / Erosion Control		2%	\$	78,995
✓	Basic Landscaping		4%	\$	157,991
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 3,770,587
Paving and Allowance Subtotal:					\$ 7,720,351
Construction Contingency:					15% \$ 1,158,053
Construction Cost TOTAL:					\$ 8,879,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,879,000
Engineering/Survey/Testing:		20%	\$ 1,775,800
Mobilization		5%	\$ 443,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 887,900
Impact Fee Project Cost TOTAL:			\$ 11,987,000

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The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-20
Name:	Precinct Line (4)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	Randol Mill (Existing) to 1,815' S of			
Impact Fee Class:	Randol Mill (Existing)			
Ultimate Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
	4 Lane Divided Neighborhood Connector			
Length (lf):	1,815			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	5,243	cy	\$ 17.00	\$ 89,137
230	6" Lime Stabilization (with Lime @ 32#/sy)	10,083	sy	\$ 4.00	\$ 40,333
330	11" Concrete Pavement	9,277	sy	\$ 55.00	\$ 510,217
430	6" Curb and Gutter	7,260	lf	\$ 7.00	\$ 50,820
530	4" Topsoil	8,873	sy	\$ 5.00	\$ 44,367
630	10' Concrete Sidewalk	36,300	sf	\$ 6.00	\$ 217,800
728	Auxiliary Lanes and Median Openings Allotment	729	sf	\$ 59.00	\$ 42,996
Paving Construction Cost Subtotal:					\$ 995,670
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	29,870
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	29,870
✓	Roadway Drainage	Standard Internal System	30%	\$	298,701
✓	Illumination		2%	\$	24,759
✓	Special Drainage Structures	Minor Stream Crossing(s)	\$ 222,750	\$	222,750
✓	Water	Minor Adjustments	6%	\$	59,740
✓	Sewer	Minor Adjustments	4%	\$	39,827
✓	Establish Turf / Erosion Control		2%	\$	19,913
✓	Basic Landscaping		4%	\$	39,827
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 765,257
Paving and Allowance Subtotal:					\$ 1,760,927
Construction Contingency:					15% \$ 264,139
Construction Cost TOTAL:					\$ 2,026,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,026,000
Engineering/Survey/Testing:		20%	\$ 405,200
Mobilization		5%	\$ 101,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 405,200
Impact Fee Project Cost TOTAL:			\$ 2,938,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-21
Name:	Cooks (1) 1,815' S of Randol Mill to 690' S of	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	Lowery			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	2,845			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	5,848	cy	\$ 17.00	\$ 99,417
241	6" Lime Stabilization (with Lime @ 32#/sy)	11,380	sy	\$ 4.00	\$ 45,520
341	11" Concrete Pavement	10,748	sy	\$ 55.00	\$ 591,128
441	6" Curb and Gutter	5,690	lf	\$ 7.00	\$ 39,830
541	4" Topsoil	8,219	sy	\$ 5.00	\$ 41,094
641	10' Concrete Sidewalk	56,900	sf	\$ 6.00	\$ 341,400
739	Auxiliary Lanes and Median Openings Allotment	485	sf	\$ 59.00	\$ 28,612
Paving Construction Cost Subtotal:					\$ 1,187,001
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	35,610
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	35,610
✓	Roadway Drainage	Standard Internal System	30%	\$	356,100
✓	Illumination		2%	\$	29,517
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	71,220
✓	Sewer	Minor Adjustments	4%	\$	47,480
✓	Establish Turf / Erosion Control		2%	\$	23,740
✓	Basic Landscaping		4%	\$	47,480
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 646,757
Paving and Allowance Subtotal:					\$ 1,833,758
Construction Contingency:					15% \$ 275,064
Construction Cost TOTAL:					\$ 2,109,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,109,000
Engineering/Survey/Testing:		20%	\$ 421,800
Mobilization		5%	\$ 105,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 421,800
Impact Fee Project Cost TOTAL:			\$ 3,058,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	M-22
Name:	Norwood (1) SH 10 to Railroad	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided commercial connector.</b>		
Limits:				
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	1,250			
Service Area(s):	M			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	2,708	cy	\$ 17.00	\$ 46,042
239	6" Lime Stabilization (with Lime @ 32#/sy)	5,278	sy	\$ 4.00	\$ 21,111
339	11" Concrete Pavement	5,000	sy	\$ 55.00	\$ 275,000
439	6" Curb and Gutter	2,500	lf	\$ 7.00	\$ 17,500
539	4" Topsoil	3,333	sy	\$ 5.00	\$ 16,667
639	10' Concrete Sidewalk	25,000	sf	\$ 6.00	\$ 150,000
737	Auxiliary Lanes and Median Openings Allotment	213	sf	\$ 59.00	\$ 12,571
Paving Construction Cost Subtotal:					\$ 538,890
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,167
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	16,167
✓	Pavement Markings/Markers		3%	\$	16,167
✓	Roadway Drainage	Standard Internal System	30%	\$	161,667
✓	Illumination		2%	\$	13,400
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	32,333
✓	Sewer	Minor Adjustments	4%	\$	21,556
✓	Establish Turf / Erosion Control		2%	\$	10,778
✓	Basic Landscaping		4%	\$	21,556
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
Allowance Subtotal:					\$ 809,790
Paving and Allowance Subtotal:					\$ 1,348,681
Construction Contingency:					15% \$ 127,302
Construction Cost TOTAL:					\$ 1,476,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,476,000
Engineering/Survey/Testing:		20%	\$ 295,200
Mobilization		5%	\$ 73,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 147,600
Impact Fee Project Cost TOTAL:			\$ 1,993,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	M-23
Name:	Norwood (2) Railroad to Trinity	<b>This project consisted of the reconstruction of the existing asphalt facility as a three-lane undivided commercial connector. The City contributed \$2,395,000 overall to this project, of which \$1,395,000 came from previously collected impact fees.</b>		
Limits:				
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	1,215			
Service Area(s):	M			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 2,395,000
Previous City contribution	Transportation Impact Fees Legacy Fund		\$ (1,395,000)
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,000,000</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 9/29/2017

Project Information:		Description:	Project No. M-24
Name:	Greenbelt Rd Trinity to 8885' S of Trinity	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	8,885		
Service Area(s):	M		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	25,668	cy	\$ 17.00	\$ 436,352
230	6" Lime Stabilization (with Lime @ 32#/sy)	49,361	sy	\$ 4.00	\$ 197,444
330	11" Concrete Pavement	45,412	sy	\$ 55.00	\$ 2,497,672
430	6" Curb and Gutter	35,540	lf	\$ 7.00	\$ 248,780
530	4" Topsoil	43,438	sy	\$ 5.00	\$ 217,189
630	10' Concrete Sidewalk	177,700	sf	\$ 6.00	\$ 1,066,200
728	Auxiliary Lanes and Median Openings Allotment	3,567	sf	\$ 59.00	\$ 210,480
Paving Construction Cost Subtotal:					\$ 4,874,118
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW	Construction Phase Traffic Control		3%	\$ 146,224
✓	Traffic Control			3%	\$ 146,224
✓	Pavement Markings/Markers	Standard Internal System		3%	\$ 146,224
✓	Roadway Drainage			30%	\$ 1,462,235
✓	Illumination	Major Drainage Crossing		2%	\$ 121,203
✓	Special Drainage Structures			\$ 1,500,000	\$ 1,500,000
✓	Water	Minor Adjustments		6%	\$ 292,447
✓	Sewer	Minor Adjustments		4%	\$ 194,965
✓	Establish Turf / Erosion Control			2%	\$ 97,482
✓	Basic Landscaping			4%	\$ 194,965
	Other:			\$0	\$ -
Allowance Subtotal:					\$ 4,301,968
Paving and Allowance Subtotal:					\$ 9,176,086
Construction Contingency:					15% \$ 1,376,413
Construction Cost TOTAL:					\$ 10,553,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 10,553,000
Engineering/Survey/Testing:		20%	\$ 2,110,600
Mobilization		5%	\$ 527,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 1,055,300
Impact Fee Project Cost TOTAL:			\$ 14,247,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.  
 The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

## Appendix A - Service Area N

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
 Transportation Improvements Plan for Transportation Impact Fees  
 Appendix A - Summary of Conceptual Level Project Cost Projections

**Roadway/Intersection Improvements - Service Area N**

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
N-1	CCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (2)	Raider to House Anderson	Widening	100%	\$ 3,827,000	\$ 3,827,000.00
N-2	CCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (3)	House Anderson to 1,755' E of House Anderson	Widening	100%	\$ 1,851,000	\$ 1,851,000.00
N-3	NCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (4)	1,665' W of FM 157 to FM 157	Widening	100%	\$ 1,700,000	\$ 1,700,000.00
N-4	NCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (5)	FM 157 to S. Main	Widening	100%	\$ 5,960,000	\$ 5,960,000.00
N-5	NCO-L1-T0-TWLT-P0-BOP (80)	Pipeline (6)	S. Main to American	Widening	100%	\$ 3,642,000	\$ 3,642,000.00
N-6	NCO-L1-T0-TWLT-P0-BOP (80)	House Anderson	Pipeline to Trinity	Widening	100%	\$ 1,470,000	\$ 1,470,000.00
N-7	NCO-L1-T0-TWLT-P0-BOP (80)	S. Main	Pipeline to Trinity	Widening	100%	\$ 1,021,000	\$ 1,021,000.00
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Roundabout	FAA	American	Retrofit	100%	\$ 2,500,000	\$2,500,000
	Turn Lane Improvements	FAA	Amon Carter	Retrofit	100%	\$ 705,000	\$705,000
	Roundabout	FAA	Centreport	Retrofit	100%	\$ 2,500,000	\$2,500,000
	Turn Lane Improvements	Pipeline	FM 157	Rebuild	100%	\$ 500,000	\$500,000
	Roundabout	Pipeline	S. Main	Rebuild	100%	\$ 1,500,000	\$1,500,000
	Roundabout	Pipeline	American	Rebuild	100%	\$ 1,500,000	\$1,500,000
	Roundabout	Pipeline	House Anderson	Rebuild	100%	\$ 1,500,000	\$1,500,000
	Turn Lane Improvements	Sovereign	Amon Carter	Retrofit	100%	\$ 295,000	\$295,000
	Turn Lane Improvements	Trinity	SH 360 SBFR	Retrofit	100%	\$ 750,000	\$750,000
	Turn Lane Improvements	Trinity	House Anderson	Rebuild	100%	\$ 400,000	\$400,000
	Turn Lane Improvements	Trinity	FM 157	Retrofit	100%	\$ 230,000	\$230,000
	Turn Lane Improvements	Trinity	Buckingham	Retrofit	100%	\$ 655,000	\$655,000
	Turn Lane Improvements	Trinity	Frye	Retrofit	100%	\$ 950,000	\$950,000
	Turn Lane Improvements	Trinity	S. Main	Rebuild	100%	\$ 300,000	\$300,000
	Turn Lane Improvements	Trinity	American	Retrofit	100%	\$ 295,000	\$295,000
	Turn Lane Improvements	Trinity	Centreport	Retrofit	100%	\$ 770,000	\$770,000
	Turn Lane Improvements	Trinity	Amon Carter	Retrofit	100%	\$ 360,000	\$360,000

**NOTES:**

1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.

2. Intersection Improvements were identified based on impact fee project status, MTP classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Pipeline (2) Raider to House Anderson	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided commercial connector.</b>	<b>N-1</b>
Limits:			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Commercial Connector		
Length (lf):	3,630		
Service Area(s):	N		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	7,865	cy	\$ 17.00	\$ 133,705
239	6" Lime Stabilization (with Lime @ 32#/sy)	15,327	sy	\$ 4.00	\$ 61,307
339	11" Concrete Pavement	14,520	sy	\$ 55.00	\$ 798,600
439	6" Curb and Gutter	7,260	lf	\$ 7.00	\$ 50,820
539	4" Topsoil	9,680	sy	\$ 5.00	\$ 48,400
639	10' Concrete Sidewalk	72,600	sf	\$ 6.00	\$ 435,600
737	Auxiliary Lanes and Median Openings Allotment	619	sf	\$ 59.00	\$ 36,506
Paving Construction Cost Subtotal:					\$ 1,564,938
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	46,948
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	46,948
✓	Pavement Markings/Markers		3%	\$	46,948
✓	Roadway Drainage	Standard Internal System	30%	\$	469,481
✓	Illumination		2%	\$	38,915
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	93,896
✓	Sewer	Minor Adjustments	4%	\$	62,598
✓	Establish Turf / Erosion Control		2%	\$	31,299
✓	Basic Landscaping		4%	\$	62,598
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 899,631
Paving and Allowance Subtotal:					\$ 2,464,569
Construction Contingency:					15% \$ 369,685
Construction Cost TOTAL:					\$ 2,835,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,835,000
Engineering/Survey/Testing:		20%	\$ 567,000
Mobilization		5%	\$ 141,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 283,500
Impact Fee Project Cost TOTAL:			\$ 3,827,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	N-2
Name:	Pipeline (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided commercial connector.</b>		
Limits:	House Anderson to 1,755' E of House Anderson			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	1,755			
Service Area(s):	N			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	3,803	cy	\$ 17.00	\$ 64,643
239	6" Lime Stabilization (with Lime @ 32#/sy)	7,410	sy	\$ 4.00	\$ 29,640
339	11" Concrete Pavement	7,020	sy	\$ 55.00	\$ 386,100
439	6" Curb and Gutter	3,510	lf	\$ 7.00	\$ 24,570
539	4" Topsoil	4,680	sy	\$ 5.00	\$ 23,400
639	10' Concrete Sidewalk	35,100	sf	\$ 6.00	\$ 210,600
737	Auxiliary Lanes and Median Openings Allotment	299	sf	\$ 59.00	\$ 17,650
Paving Construction Cost Subtotal:					\$ 756,602
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	22,698
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	22,698
✓	Pavement Markings/Markers		3%	\$	22,698
✓	Roadway Drainage	Standard Internal System	30%	\$	226,981
✓	Illumination		2%	\$	18,814
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	45,396
✓	Sewer	Minor Adjustments	4%	\$	30,264
✓	Establish Turf / Erosion Control		2%	\$	15,132
✓	Basic Landscaping		4%	\$	30,264
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 434,945
Paving and Allowance Subtotal:					\$ 1,191,548
Construction Contingency:					15% \$ 178,732
Construction Cost TOTAL:					\$ 1,371,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,371,000
Engineering/Survey/Testing:		20%	\$ 274,200
Mobilization		5%	\$ 68,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 137,100
Impact Fee Project Cost TOTAL:			\$ 1,851,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	N-3
Name:	Pipeline (4) 1,665' W of FM 157 to FM 157	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,665			
Service Area(s):	N			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	3,423	cy	\$ 17.00	\$ 58,183
241	6" Lime Stabilization (with Lime @ 32#/sy)	6,660	sy	\$ 4.00	\$ 26,640
341	11" Concrete Pavement	6,290	sy	\$ 55.00	\$ 345,950
441	6" Curb and Gutter	3,330	lf	\$ 7.00	\$ 23,310
541	4" Topsoil	4,810	sy	\$ 5.00	\$ 24,050
641	10' Concrete Sidewalk	33,300	sf	\$ 6.00	\$ 199,800
739	Auxiliary Lanes and Median Openings Allotment	284	sf	\$ 59.00	\$ 16,745
Paving Construction Cost Subtotal:					\$ 694,677
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	20,840
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	20,840
✓	Pavement Markings/Markers		3%	\$	20,840
✓	Roadway Drainage	Standard Internal System	30%	\$	208,403
✓	Illumination		2%	\$	17,274
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	41,681
✓	Sewer	Minor Adjustments	4%	\$	27,787
✓	Establish Turf / Erosion Control		2%	\$	13,894
✓	Basic Landscaping		4%	\$	27,787
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 399,347
Paving and Allowance Subtotal:					\$ 1,094,024
Construction Contingency:					15% \$ 164,104
Construction Cost TOTAL:					\$ 1,259,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,259,000
Engineering/Survey/Testing:		20%	\$ 251,800
Mobilization		5%	\$ 62,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 125,900
Impact Fee Project Cost TOTAL:			\$ 1,700,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	N-4
Name:	Pipeline (5) FM 157 to S. Main	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	5,330			
Service Area(s):	N			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	10,956	cy	\$ 17.00	\$ 186,254
241	6" Lime Stabilization (with Lime @ 32#/sy)	21,320	sy	\$ 4.00	\$ 85,280
341	11" Concrete Pavement	20,136	sy	\$ 55.00	\$ 1,107,456
441	6" Curb and Gutter	10,660	lf	\$ 7.00	\$ 74,620
541	4" Topsoil	15,398	sy	\$ 5.00	\$ 76,989
641	10' Concrete Sidewalk	106,600	sf	\$ 6.00	\$ 639,600
739	Auxiliary Lanes and Median Openings Allotment	909	sf	\$ 59.00	\$ 53,603
Paving Construction Cost Subtotal:					\$ 2,223,801
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	66,714
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	66,714
✓	Pavement Markings/Markers		3%	\$	66,714
✓	Roadway Drainage	Standard Internal System	30%	\$	667,140
✓	Illumination		2%	\$	55,299
✓	Special Drainage Structures	Minor Stream Crossing(s)	\$ 336,875	\$	336,875
✓	Water	Minor Adjustments	6%	\$	133,428
✓	Sewer	Minor Adjustments	4%	\$	88,952
✓	Establish Turf / Erosion Control		2%	\$	44,476
✓	Basic Landscaping		4%	\$	88,952
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,615,264
Paving and Allowance Subtotal:					\$ 3,839,065
Construction Contingency:					15% \$ 575,860
Construction Cost TOTAL:					\$ 4,415,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,415,000
Engineering/Survey/Testing:		20%	\$ 883,000
Mobilization		5%	\$ 220,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 441,500
Impact Fee Project Cost TOTAL:			\$ 5,960,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	N-5
Name:	Pipeline (6) S. Main to American	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	3,570			
Service Area(s):	N			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	7,338	cy	\$ 17.00	\$ 124,752
241	6" Lime Stabilization (with Lime @ 32#/sy)	14,280	sy	\$ 4.00	\$ 57,120
341	11" Concrete Pavement	13,487	sy	\$ 55.00	\$ 741,767
441	6" Curb and Gutter	7,140	lf	\$ 7.00	\$ 49,980
541	4" Topsoil	10,313	sy	\$ 5.00	\$ 51,567
641	10' Concrete Sidewalk	71,400	sf	\$ 6.00	\$ 428,400
739	Auxiliary Lanes and Median Openings Allotment	609	sf	\$ 59.00	\$ 35,903
Paving Construction Cost Subtotal:					\$ 1,489,488
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	44,685
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	44,685
✓	Pavement Markings/Markers		3%	\$	44,685
✓	Roadway Drainage	Standard Internal System	30%	\$	446,846
✓	Illumination		2%	\$	37,039
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	89,369
✓	Sewer	Minor Adjustments	4%	\$	59,580
✓	Establish Turf / Erosion Control		2%	\$	29,790
✓	Basic Landscaping		4%	\$	59,580
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 856,257
Paving and Allowance Subtotal:					\$ 2,345,745
Construction Contingency:					15% \$ 351,862
Construction Cost TOTAL:					\$ 2,698,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,698,000
Engineering/Survey/Testing:		20%	\$ 539,600
Mobilization		5%	\$ 134,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 269,800
Impact Fee Project Cost TOTAL:			\$ 3,642,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	N-6
Name:	House Anderson Pipeline to Trinity	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,440			
Service Area(s):	N			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	2,960	cy	\$ 17.00	\$ 50,320
241	6" Lime Stabilization (with Lime @ 32#/sy)	5,760	sy	\$ 4.00	\$ 23,040
341	11" Concrete Pavement	5,440	sy	\$ 55.00	\$ 299,200
441	6" Curb and Gutter	2,880	lf	\$ 7.00	\$ 20,160
541	4" Topsoil	4,160	sy	\$ 5.00	\$ 20,800
641	10' Concrete Sidewalk	28,800	sf	\$ 6.00	\$ 172,800
739	Auxiliary Lanes and Median Openings Allotment	245	sf	\$ 59.00	\$ 14,482
Paving Construction Cost Subtotal:					\$ 600,802
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	18,024
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	18,024
✓	Pavement Markings/Markers		3%	\$	18,024
✓	Roadway Drainage	Standard Internal System	30%	\$	180,241
✓	Illumination		2%	\$	14,940
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	36,048
✓	Sewer	Minor Adjustments	4%	\$	24,032
✓	Establish Turf / Erosion Control		2%	\$	12,016
✓	Basic Landscaping		4%	\$	24,032
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 345,381
Paving and Allowance Subtotal:					\$ 946,183
Construction Contingency:					15% \$ 141,927
Construction Cost TOTAL:					\$ 1,089,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,089,000
Engineering/Survey/Testing:		20%	\$ 217,800
Mobilization		5%	\$ 54,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 108,900
Impact Fee Project Cost TOTAL:			\$ 1,470,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	S. Main Pipeline to Trinity	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>	<b>N-7</b>
Limits:			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	1,000		
Service Area(s):	N		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	2,056	cy	\$ 17.00	\$ 34,944
241	6" Lime Stabilization (with Lime @ 32#/sy)	4,000	sy	\$ 4.00	\$ 16,000
341	11" Concrete Pavement	3,778	sy	\$ 55.00	\$ 207,778
441	6" Curb and Gutter	2,000	lf	\$ 7.00	\$ 14,000
541	4" Topsoil	2,889	sy	\$ 5.00	\$ 14,444
641	10' Concrete Sidewalk	20,000	sf	\$ 6.00	\$ 120,000
739	Auxiliary Lanes and Median Openings Allotment	170	sf	\$ 59.00	\$ 10,057
Paving Construction Cost Subtotal:					\$ 417,223
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	12,517
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	12,517
✓	Pavement Markings/Markers		3%	\$	12,517
✓	Roadway Drainage	Standard Internal System	30%	\$	125,167
✓	Illumination		2%	\$	10,375
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	25,033
✓	Sewer	Minor Adjustments	4%	\$	16,689
✓	Establish Turf / Erosion Control		2%	\$	8,344
✓	Basic Landscaping		4%	\$	16,689
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 239,848
Paving and Allowance Subtotal:					\$ 657,071
Construction Contingency:					15% \$ 98,561
Construction Cost TOTAL:					\$ 756,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 756,000
Engineering/Survey/Testing:		20%	\$ 151,200
Mobilization		5%	\$ 37,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 75,600
Impact Fee Project Cost TOTAL:			\$ 1,021,000

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The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**Appendix A – Service Area O**



City of Fort Worth - 2017 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees

Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area O

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
O-1	NCO-L2-T0-TWLT-P0-BOP (110)	Sandy (4)	IH-30 to Ederville	Widening	100%	\$ 3,274,000	\$ 3,274,000
O-2	NCO-L2-T0-NTMS-P0-BOP (110)	Cooks (2)	Brentwood Stair to 140' N of Bermejo	Widening	100%	\$ 6,352,000	\$ 6,352,000
O-3	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Cooks (3)	140' N of Bermejo to Maegan	Widening	100%	\$ 851,000	\$ 851,000
O-4	NCO-L2-T0-NTMS-P0-BOP (110)	Cooks (4)	Maegan to Dottie Lynn	New	100%	\$ 2,036,000	\$ 2,036,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Roundabout	Brentwood Stair	Sandy	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Dottie Lynn	Cooks	Rebuild	100%	\$ 500,000	\$ 500,000
	Roundabout	Ederville	Cooks	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Ederville	Eastchase	Retrofit	100%	\$ 770,000	\$ 770,000
	Roundabout	Ederville	Sandy	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	Lancaster	Sandy	Retrofit	100%	\$ 180,000	\$ 180,000
	Turn Lane Improvements	Meadowbrook	Handley	Retrofit	100%	\$ 180,000	\$ 180,000
	Turn Lane Improvements	Meadowbrook	Randol Mill	Retrofit	100%	\$ 360,000	\$ 360,000
<b>NOTES:</b> 1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project. 2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements may be substituted in place of roundabouts if determined more appropriate based further design level evaluation.							

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 9/29/2017

Project Information:		Description:	Project No.	O-1
Name:	Sandy (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>		
Limits:	IH-30 to Ederville			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	870			
Service Area(s):	O			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	2,852	cy	\$ 17.00	\$ 48,478
233	6" Lime Stabilization (with Lime @ 32#/sy)	5,607	sy	\$ 4.00	\$ 22,427
333	11" Concrete Pavement	5,413	sy	\$ 55.00	\$ 297,733
433	6" Curb and Gutter	1,740	lf	\$ 7.00	\$ 12,180
533	4" Topsoil	3,287	sy	\$ 5.00	\$ 16,433
633	10' Concrete Sidewalk	17,400	sf	\$ 6.00	\$ 104,400
731	Auxiliary Lanes and Median Openings Allotment	148	sf	\$ 59.00	\$ 8,749
Paving Construction Cost Subtotal:					\$ 510,401
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	15,312
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	15,312
✓	Pavement Markings/Markers		3%	\$	15,312
✓	Roadway Drainage	Standard Internal System	30%	\$	153,120
✓	Illumination		2%	\$	12,692
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	30,624
✓	Sewer	Minor Adjustments	4%	\$	20,416
✓	Establish Turf / Erosion Control		2%	\$	10,208
✓	Basic Landscaping		4%	\$	20,416
✓	Other:	IH-30 Bridge allotment	\$1,500,000		\$1,500,000
Allowance Subtotal:					\$ 1,793,413
Paving and Allowance Subtotal:					\$ 2,303,814
Construction Contingency:					15% \$ 120,572
Construction Cost TOTAL:					\$ 2,425,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,425,000
Engineering/Survey/Testing:		20%	\$ 485,000
Mobilization		5%	\$ 121,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 242,500
Impact Fee Project Cost TOTAL:			\$ 3,274,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.  
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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	O-2
Name:	Cooks (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:	Brentwood Stair to 140' N of Bermejo			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	4,105			
Service Area(s):	O			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	11,859	cy	\$ 17.00	\$ 201,601
230	6" Lime Stabilization (with Lime @ 32#/sy)	22,806	sy	\$ 4.00	\$ 91,222
330	11" Concrete Pavement	20,981	sy	\$ 55.00	\$ 1,153,961
430	6" Curb and Gutter	16,420	lf	\$ 7.00	\$ 114,940
530	4" Topsoil	20,069	sy	\$ 5.00	\$ 100,344
630	10' Concrete Sidewalk	82,100	sf	\$ 6.00	\$ 492,600
728	Auxiliary Lanes and Median Openings Allotment	1,648	sf	\$ 59.00	\$ 97,245
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,251,914</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	67,557
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	67,557
✓	Pavement Markings/Markers		3%	\$	67,557
✓	Roadway Drainage	Standard Internal System	30%	\$	675,574
✓	Illumination		2%	\$	55,998
✓	Special Drainage Structures	Drainage Crossing(s)	\$ 544,500	\$	544,500
✓	Water	Minor Adjustments	6%	\$	135,115
✓	Sewer	Minor Adjustments	4%	\$	90,077
✓	Establish Turf / Erosion Control		2%	\$	45,038
✓	Basic Landscaping		4%	\$	90,077
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 1,839,050</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 4,090,964</b>
<b>Construction Contingency:</b>					<b>15% \$ 613,645</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 4,705,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,705,000
Engineering/Survey/Testing:		20%	\$ 941,000
Mobilization		5%	\$ 235,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 470,500
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 6,352,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. O-3
Name:	Cooks (3)	<b>This project consists of the construction of a eastern lanes to complete the four-lane divided neighborhood connector.</b>	
Limits:	140' N of Bermejo to Maegan		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,215		
Service Area(s):	O		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	1,755	cy	\$ 17.00	\$ 29,835
231	6" Lime Stabilization (with Lime @ 32#/sy)	3,375	sy	\$ 4.00	\$ 13,500
331	11" Concrete Pavement	3,105	sy	\$ 55.00	\$ 170,775
431	6" Curb and Gutter	2,430	lf	\$ 7.00	\$ 17,010
531	4" Topsoil	2,970	sy	\$ 5.00	\$ 14,850
631	10' Concrete Sidewalk	12,150	sf	\$ 6.00	\$ 72,900
729	Auxiliary Lanes and Median Openings Allotment	488	sf	\$ 59.00	\$ 28,783
Paving Construction Cost Subtotal:					\$ 347,653
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	10,430
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	10,430
✓	Pavement Markings/Markers		3%	\$	10,430
✓	Roadway Drainage	Standard Internal System	30%	\$	104,296
✓	Illumination		2%	\$	8,645
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	20,859
✓	Sewer	Minor Adjustments	4%	\$	13,906
✓	Establish Turf / Erosion Control		2%	\$	6,953
✓	Basic Landscaping		4%	\$	13,906
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 199,854
Paving and Allowance Subtotal:					\$ 547,507
Construction Contingency: 15%					\$ 82,126
Construction Cost TOTAL:					\$ 630,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 630,000
Engineering/Survey/Testing:		20%	\$ 126,000
Mobilization		5%	\$ 31,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 63,000
Impact Fee Project Cost TOTAL:			\$ 851,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	O-4
Name:	Cooks (4)	<b>This project consists of the construction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:	Maegan to Dottie Lynn			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,440			
Service Area(s):	O			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	4,160	cy	\$ 17.00	\$ 70,720
230	6" Lime Stabilization (with Lime @ 32#/sy)	8,000	sy	\$ 4.00	\$ 32,000
330	11" Concrete Pavement	7,360	sy	\$ 55.00	\$ 404,800
430	6" Curb and Gutter	5,760	lf	\$ 7.00	\$ 40,320
530	4" Topsoil	7,040	sy	\$ 5.00	\$ 35,200
630	10' Concrete Sidewalk	28,800	sf	\$ 6.00	\$ 172,800
728	Auxiliary Lanes and Median Openings Allotment	578	sf	\$ 59.00	\$ 34,113
Paving Construction Cost Subtotal:					\$ 789,953
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	23,699
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	23,699
✓	Roadway Drainage	Standard Internal System	30%	\$	236,986
✓	Illumination		2%	\$	19,643
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	47,397
✓	Sewer	Minor Adjustments	4%	\$	31,598
✓	Establish Turf / Erosion Control		2%	\$	15,799
✓	Basic Landscaping		4%	\$	31,598
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 430,419
Paving and Allowance Subtotal:					\$ 1,220,372
Construction Contingency:					15% \$ 183,056
Construction Cost TOTAL:					\$ 1,404,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,404,000
Engineering/Survey/Testing:		20%	\$ 280,800
Mobilization		5%	\$ 70,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 280,800
Impact Fee Project Cost TOTAL:			\$ 2,036,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**Appendix A - Service Area PI**

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area PI

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
PI-1	CMU-L2-TO-UNDIV-PO-BLC (110)	White Settlement	Henderson to Main	New	100%	\$ 7,514,598	\$ 7,514,598
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Roundabout	White Settlement	Main	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
<b>NOTES:</b> 1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project. 2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements may be substituted in place of roundabouts if determined more appropriate based further design level evaluation.							



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated: 11/8/2017

Project Information:		Description:	Project No.	PI-1
Name:	White Settlement	<b>This project consists of the construction of a new 4 lane undivided commercial mixed-use street, which includes a bridge structure over the Trinity River. The City contributed \$7,514,598 to this project overall.</b>		
Limits:	Henderson to Main			
Impact Fee Class:	CMU-L2-TO-UNDIV-PO-BLC (110)			
Ultimate Class:	4 Lane Undivided Commercial/Mixed-Use Street			
Length (lf):	2,830			
Service Area(s):	PI			
Impact Fee Project Cost Summary				
Item Description		Notes:	Allowance	Item Cost
Impact Fee Project Cost TOTAL:			\$	7,514,598

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted contruction costs provided by the City.

**Appendix A - Service Area S**

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area S

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
S-1	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (1)	4,220' W of Silver Creek (Existing) to Silver Creek (Existing)	New	100%	\$ 7,566,000	\$ 7,566,000
S-2	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (2)	Silver Creek (Future) to 595' S of Verna	Widening	100%	\$ 5,708,000	\$ 5,708,000
S-3	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (3)	595' S of Verna to Academy (Future)	New	100%	\$ 1,195,000	\$ 1,195,000
S-4	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Creek (4)	Academy (Future) to 1465 feet E of Academy (Future)	New	100%	\$ 2,071,000	\$ 2,071,000
S-5	NCO (E)	Silver Creek (5)	1,465' E of Academy (Future) to IH-820	Previous	100%	\$ 1,329,510	\$ 1,329,510
S-6	SYS-L3-T0-NTMS-P0-BLS (130) (W)	White Settlement (1)	600' E of Haywire Ranch to Silver Ridge	Widening	50%	\$ 8,917,000	\$ 4,458,500
S-7	SYS-L3-T0-NTMS-P0-BLS (130) (W)	White Settlement (2)	Silver Ridge to 890' E of Silver Ridge	Widening	50%	\$ 1,318,000	\$ 659,000
S-8	SYS-L3-T0-NTMS-P0-BLS (130) (W)	White Settlement (3)	890' E of Silver Ridge to Chapel Creek	Widening	100%	\$ 5,831,000	\$ 5,831,000
S-9	SYS-L3-T0-NTMW-P0-BLS (130) (1/3)	White Settlement (4)	Chapel Creek to Academy	Median	100%	\$ 925,000	\$ 925,000
S-10	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	White Settlement (5)	Academy to Legacy	Median	100%	\$ 714,000	\$ 714,000
S-11	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	White Settlement (6)	Legacy to White Settlement	Median	100%	\$ 213,000	\$ 213,000
S-12	NCO-L2-T0-NTMS-P0-BOP (110)	Westpoint (1)	3,525' W of Basset Locke to Basset Locke	New	100%	\$ 4,982,000	\$ 4,982,000
S-13	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Westpoint (2)	Basset Locke to American Flyer	Widening	100%	\$ 1,112,000	\$ 1,112,000
S-14	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Westpoint (3)	Academy to IH-820 SBFR	Widening	100%	\$ 5,145,000	\$ 5,145,000
S-15	NCO-L2-T0-NTMS-P0-BOP (110)	Old Weatherford (3)	3,510' W of Hickory Bend to 100' E of Hickory Bend	Widening	100%	\$ 4,842,000	\$ 4,842,000
S-16	NCO-L2-T0-NTMS-P0-BOP (110)	Old Weatherford (4)	100' E of Hickory Bend to Chapel Creek	Widening	100%	\$ 3,448,000	\$ 3,448,000
S-17	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Amber Ridge (1)	Chapel Creek to Wind Star	Widening	100%	\$ 973,000	\$ 973,000
S-18	NCO-L2-T0-NTMS-P0-BOP (110)	Amber Ridge (2)	Wind Star to Academy (Future)	New	100%	\$ 1,775,000	\$ 1,775,000
S-19	NCO-L1-T0-TWLT-P0-BOP (80)	Amber Ridge (3)	Academy (Future) to 920' E of Academy (Future)	New	100%	\$ 989,000	\$ 989,000
S-20	CCO-L1-T0-TWLT-P0-BOP (80)	Amber Ridge (4)	920' E of Academy (Future) to Settlement Plaza (Future)	New	100%	\$ 712,000	\$ 712,000
S-21	CCO-L1-T0-TWLT-P0-BOP (80)	Amber Ridge (5)	Settlement Plaza (Future) to IH 820 SBFR	New	100%	\$ 2,849,000	\$ 2,849,000
S-22	NCO-L1-T0-TWLT-P0-BOP (80)	Chapin (1)	3,155' W of Whitetail Chase to 1,370' W of Whitetail Chase	Widening	100%	\$ 1,821,000	\$ 1,821,000
S-23	NCO-L1-T0-TWLT-P0-BOP (80)	Chapin (2)	1,370' W of Whitetail Chase to 130' W of Whitetail Chase	New	100%	\$ 1,334,000	\$ 1,334,000
S-24	NCO-L2-T0-NTMS-P0-BOP (110)	WR #7	3,635' N of Old Weatherford to Old Weatherford	New	100%	\$ 5,137,000	\$ 5,137,000
S-25	NCO-L2-T0-NTMS-P0-BOP (110)	Silver Ridge	135' S of Broken Arrow to 110' N of Fandor	New	100%	\$ 3,787,000	\$ 3,787,000
S-26	NCO (E)	Chapel Creek	Chapin to IH-30	Previous	100%	\$ 967,698	\$ 967,698
S-27	NCO-L2-T0-NTMS-P0-BOP (110)	Academy (1)	Silver Creek (Future) to 125' N of Sparrow Hawk	New	100%	\$ 4,227,000	\$ 4,227,000
S-28	NCO-L2-T0-NTMS-P0-BOP (110)	Academy (2)	300' S of Westpoint to Amber Ridge (Future)	New	100%	\$ 2,714,000	\$ 2,714,000
S-29	CCO-L2-T0-NTMS-P0-BOP (110)	Academy (3)	Amber Ridge (Future) to IH-30 WBFR	New	100%	\$ 3,906,000	\$ 3,906,000
S-30	NCO-L1-T0-TWLT-P0-BOP (80)	Settlement Plaza	Westpoint to Amber Ridge (Future)	New	100%	\$ 1,501,000	\$ 1,501,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Roundabout	Amber Ridge	Academy	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Old Weatherford	Chapel Creek	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Amber Ridge	Settlement Plaza	New	100%	\$ 1,000,000	\$ 1,000,000
	Turn Lane Improvements	Chapin	Chapel Creek	Retrofit	100%	\$ 295,000	\$ 295,000
	Turn Lane Improvements	Clifford	White Settlement	Rebuild	100%	\$ 200,000	\$ 200,000
	Roundabout	Legacy	Academy	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Silver Creek	Academy	New	100%	\$ 1,000,000	\$ 1,000,000
	Turn Lane Improvements	Westpoint	Academy	Rebuild	100%	\$ 800,000	\$ 800,000
	Roundabout	Westpoint	American Flyer	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Westpoint	Chapel Creek	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	Westpoint	Settlement Plaza	Rebuild	100%	\$ 300,000	\$ 300,000
	Turn Lane Improvements	White Settlement	Academy	Rebuild	100%	\$ 400,000	\$ 400,000
	Turn Lane Improvements	White Settlement	Chapel Creek	Rebuild	100%	\$ 600,000	\$ 600,000
	Turn Lane Improvements	White Settlement	Legacy	Rebuild	100%	\$ 200,000	\$ 200,000
	Turn Lane Improvements	White Settlement	Silver Ridge	Rebuild	50%	\$ 300,000	\$ 150,000
<b>NOTES:</b> 1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project. 2. Intersection Improvements were identified based on impact fee project status, MTP classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.							

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-1
Name:	Silver Creek (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	4,220' W of Silver Creek (Existing) to Silver Creek (Existing)			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	4,220			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	12,191	cy	\$ 17.00	\$ 207,249
230	6" Lime Stabilization (with Lime @ 32#/sy)	23,444	sy	\$ 4.00	\$ 93,778
330	11" Concrete Pavement	21,569	sy	\$ 55.00	\$ 1,186,289
430	6" Curb and Gutter	16,880	lf	\$ 7.00	\$ 118,160
530	4" Topsoil	20,631	sy	\$ 5.00	\$ 103,156
630	10' Concrete Sidewalk	84,400	sf	\$ 6.00	\$ 506,400
728	Auxiliary Lanes and Median Openings Allotment	1,694	sf	\$ 59.00	\$ 99,969
Paving Construction Cost Subtotal:					\$ 2,315,000
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	69,450
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	69,450
✓	Roadway Drainage	Standard Internal System	30%	\$	694,500
✓	Illumination		2%	\$	57,566
✓	Special Drainage Structures	Drainage Crossing(s)	\$ 960,300	\$	960,300
✓	Water	Minor Adjustments	6%	\$	138,900
✓	Sewer	Minor Adjustments	4%	\$	92,600
✓	Establish Turf / Erosion Control		2%	\$	46,300
✓	Basic Landscaping		4%	\$	92,600
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,221,667
Paving and Allowance Subtotal:					\$ 4,536,667
Construction Contingency:					15% \$ 680,500
Construction Cost TOTAL:					\$ 5,218,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,218,000
Engineering/Survey/Testing:		20%	\$ 1,043,600
Mobilization		5%	\$ 260,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,043,600
Impact Fee Project Cost TOTAL:			\$ 7,566,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-2
Name:	Silver Creek (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:	Silver Creek (Future) to 595' S of Verna			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	4,255			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	12,292	cy	\$ 17.00	\$ 208,968
230	6" Lime Stabilization (with Lime @ 32#/sy)	23,639	sy	\$ 4.00	\$ 94,556
330	11" Concrete Pavement	21,748	sy	\$ 55.00	\$ 1,196,128
430	6" Curb and Gutter	17,020	lf	\$ 7.00	\$ 119,140
530	4" Topsoil	20,802	sy	\$ 5.00	\$ 104,011
630	10' Concrete Sidewalk	85,100	sf	\$ 6.00	\$ 510,600
728	Auxiliary Lanes and Median Openings Allotment	1,708	sf	\$ 59.00	\$ 100,798
Paving Construction Cost Subtotal:					\$ 2,334,201
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	70,026
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	70,026
✓	Pavement Markings/Markers		3%	\$	70,026
✓	Roadway Drainage	Standard Internal System	30%	\$	700,260
✓	Illumination		2%	\$	58,044
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	140,052
✓	Sewer	Minor Adjustments	4%	\$	93,368
✓	Establish Turf / Erosion Control		2%	\$	46,684
✓	Basic Landscaping		4%	\$	93,368
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,341,854
Paving and Allowance Subtotal:					\$ 3,676,055
Construction Contingency:					15% \$ 551,408
Construction Cost TOTAL:					\$ 4,228,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,228,000
Engineering/Survey/Testing:		20%	\$ 845,600
Mobilization		5%	\$ 211,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 422,800
Impact Fee Project Cost TOTAL:			\$ 5,708,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-3
Name:	Silver Creek (3) 595' S of Verna to Academy (Future)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	845			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	2,441	cy	\$ 17.00	\$ 41,499
230	6" Lime Stabilization (with Lime @ 32#/sy)	4,694	sy	\$ 4.00	\$ 18,778
330	11" Concrete Pavement	4,319	sy	\$ 55.00	\$ 237,539
430	6" Curb and Gutter	3,380	lf	\$ 7.00	\$ 23,660
530	4" Topsoil	4,131	sy	\$ 5.00	\$ 20,656
630	10' Concrete Sidewalk	16,900	sf	\$ 6.00	\$ 101,400
728	Auxiliary Lanes and Median Openings Allotment	339	sf	\$ 59.00	\$ 20,018
Paving Construction Cost Subtotal:					\$ 463,549
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	13,906
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	13,906
✓	Roadway Drainage	Standard Internal System	30%	\$	139,065
✓	Illumination		2%	\$	11,527
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	27,813
✓	Sewer	Minor Adjustments	4%	\$	18,542
✓	Establish Turf / Erosion Control		2%	\$	9,271
✓	Basic Landscaping		4%	\$	18,542
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 252,572
Paving and Allowance Subtotal:					\$ 716,121
Construction Contingency:					15% \$ 107,418
Construction Cost TOTAL:					\$ 824,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 824,000
Engineering/Survey/Testing:		20%	\$ 164,800
Mobilization		5%	\$ 41,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 164,800
Impact Fee Project Cost TOTAL:			\$ 1,195,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-4
Name:	Silver Creek (4)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	Academy (Future) to 1465 feet E of Academy (Future)			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,465			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	4,232	cy	\$ 17.00	\$ 71,948
230	6" Lime Stabilization (with Lime @ 32#/sy)	8,139	sy	\$ 4.00	\$ 32,556
330	11" Concrete Pavement	7,488	sy	\$ 55.00	\$ 411,828
430	6" Curb and Gutter	5,860	lf	\$ 7.00	\$ 41,020
530	4" Topsoil	7,162	sy	\$ 5.00	\$ 35,811
630	10' Concrete Sidewalk	29,300	sf	\$ 6.00	\$ 175,800
728	Auxiliary Lanes and Median Openings Allotment	588	sf	\$ 59.00	\$ 34,705
Paving Construction Cost Subtotal:					\$ 803,667
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	24,110
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	24,110
✓	Roadway Drainage	Standard Internal System	30%	\$	241,100
✓	Illumination		2%	\$	19,985
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	48,220
✓	Sewer	Minor Adjustments	4%	\$	32,147
✓	Establish Turf / Erosion Control		2%	\$	16,073
✓	Basic Landscaping		4%	\$	32,147
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 437,891
Paving and Allowance Subtotal:					\$ 1,241,559
Construction Contingency:					15% \$ 186,234
Construction Cost TOTAL:					\$ 1,428,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,428,000
Engineering/Survey/Testing:		20%	\$ 285,600
Mobilization		5%	\$ 71,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 285,600
Impact Fee Project Cost TOTAL:			\$ 2,071,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

10/3/2017

Project Information:		Description:	Project No.	S-5
Name:	Silver Creek (5)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$1,329,510 for phase one.</b>		
Limits:	1,465 feet E of Academy (Future) to IH-820			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	1,820                      1,465 feet E of A			
Service Area(s):	S			

Impact Fee Project Cost Summary	
<b>Impact Fee Project Cost TOTAL:</b>	<b>\$1,329,510</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-6
Name:	White Settlement (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided system link with a wide median.</b>		
Limits:	600' E of Haywire Ranch to Silver Ridge			
Impact Fee Class:	SYS-L3-T0-NTMS-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided System Link			
Length (lf):	6,025			
Service Area(s):	S, ETJ			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	25,439	cy	\$ 17.00	\$ 432,461
216	6" Lime Stabilization (with Lime @ 32#/sy)	34,811	sy	\$ 4.00	\$ 139,244
316	11" Concrete Pavement	32,133	sy	\$ 55.00	\$ 1,767,333
416	6" Curb and Gutter	24,100	lf	\$ 7.00	\$ 168,700
516	4" Topsoil	40,167	sy	\$ 5.00	\$ 200,833
616	11' Concrete Sidewalk	132,550	sf	\$ 6.00	\$ 795,300
714	Auxiliary Lanes and Median Openings Allotment	2,419	sf	\$ 59.00	\$ 142,729
Paving Construction Cost Subtotal:					\$ 3,646,601
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	109,398
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	109,398
✓	Pavement Markings/Markers		3%	\$	109,398
✓	Roadway Drainage	Standard Internal System	30%	\$	1,093,980
✓	Illumination		2%	\$	90,679
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	218,796
✓	Sewer	Minor Adjustments	4%	\$	145,864
✓	Establish Turf / Erosion Control		2%	\$	72,932
✓	Basic Landscaping		4%	\$	145,864
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,096,309
Paving and Allowance Subtotal:					\$ 5,742,910
Construction Contingency:					15% \$ 861,437
Construction Cost TOTAL:					\$ 6,605,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,605,000
Engineering/Survey/Testing:		20%	\$ 1,321,000
Mobilization		5%	\$ 330,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 660,500
Impact Fee Project Cost TOTAL:			\$ 8,917,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-7
Name:	White Settlement (2) Silver Ridge to 890' E of Silver Ridge	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided system link with a wide median.</b>		
Limits:				
Impact Fee Class:	SYS-L3-T0-NTMS-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided System Link			
Length (lf):	890			
Service Area(s):	S, ETJ			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	3,758	cy	\$ 17.00	\$ 63,882
216	6" Lime Stabilization (with Lime @ 32#/sy)	5,142	sy	\$ 4.00	\$ 20,569
316	11" Concrete Pavement	4,747	sy	\$ 55.00	\$ 261,067
416	6" Curb and Gutter	3,560	lf	\$ 7.00	\$ 24,920
516	4" Topsoil	5,933	sy	\$ 5.00	\$ 29,667
616	11' Concrete Sidewalk	19,580	sf	\$ 6.00	\$ 117,480
714	Auxiliary Lanes and Median Openings Allotment	357	sf	\$ 59.00	\$ 21,084
Paving Construction Cost Subtotal:					\$ 538,668
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,160
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	16,160
✓	Pavement Markings/Markers		3%	\$	16,160
✓	Roadway Drainage	Standard Internal System	30%	\$	161,600
✓	Illumination		2%	\$	13,395
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	32,320
✓	Sewer	Minor Adjustments	4%	\$	21,547
✓	Establish Turf / Erosion Control		2%	\$	10,773
✓	Basic Landscaping		4%	\$	21,547
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 309,662
Paving and Allowance Subtotal:					\$ 848,330
Construction Contingency:					15% \$ 127,250
Construction Cost TOTAL:					\$ 976,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 976,000
Engineering/Survey/Testing:		20%	\$ 195,200
Mobilization		5%	\$ 48,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 97,600
Impact Fee Project Cost TOTAL:			\$ 1,318,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-8
Name:	White Settlement (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided system link with a wide median.</b>		
Limits:	890' E of Silver Ridge to Chapel Creek			
Impact Fee Class:	SYS-L3-T0-NTMS-P0-BLS (130) (W)			
Ultimate Class:	6 Lane Divided System Link			
Length (lf):	3,940			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
116	Unclassified Street Excavation	16,636	cy	\$ 17.00	\$ 282,804
216	6" Lime Stabilization (with Lime @ 32#/sy)	22,764	sy	\$ 4.00	\$ 91,058
316	11" Concrete Pavement	21,013	sy	\$ 55.00	\$ 1,155,733
416	6" Curb and Gutter	15,760	lf	\$ 7.00	\$ 110,320
516	4" Topsoil	26,267	sy	\$ 5.00	\$ 131,333
616	11' Concrete Sidewalk	86,680	sf	\$ 6.00	\$ 520,080
714	Auxiliary Lanes and Median Openings Allotment	1,582	sf	\$ 59.00	\$ 93,336
Paving Construction Cost Subtotal:					\$ 2,384,665
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	71,540
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	71,540
✓	Pavement Markings/Markers		3%	\$	71,540
✓	Roadway Drainage	Standard Internal System	30%	\$	715,400
✓	Illumination		2%	\$	59,299
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	143,080
✓	Sewer	Minor Adjustments	4%	\$	95,387
✓	Establish Turf / Erosion Control		2%	\$	47,693
✓	Basic Landscaping		4%	\$	95,387
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,370,864
Paving and Allowance Subtotal:					\$ 3,755,530
Construction Contingency:					15% \$ 563,329
Construction Cost TOTAL:					\$ 4,319,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,319,000
Engineering/Survey/Testing:		20%	\$ 863,800
Mobilization		5%	\$ 215,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 431,900
Impact Fee Project Cost TOTAL:			\$ 5,831,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-9
Name:	White Settlement (4) Chapel Creek to Academy	<b>This project consists of the construction of the median lanes to complete the six-lane divided system link.</b>		
Limits:				
Impact Fee Class:	SYS-L3-T0-NTMW-P0-BLS (130) (1/3)			
Ultimate Class:	6 Lane Divided System Link			
Length (lf):	2,660			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
118	Unclassified Street Excavation	3,842	cy	\$ 17.00	\$ 65,318
218	6" Lime Stabilization (with Lime @ 32#/sy)	7,389	sy	\$ 4.00	\$ 29,556
318	11" Concrete Pavement	6,798	sy	\$ 55.00	\$ 373,878
418	6" Curb and Gutter	5,320	lf	\$ 7.00	\$ 37,240
518	4" Topsoil	0	sy	\$ 5.00	\$ -
618	11' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
716	Auxiliary Lanes and Median Openings Allotment	907	sf	\$ 59.00	\$ 53,502
Paving Construction Cost Subtotal:					\$ 559,493
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,785
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	16,785
✓	Pavement Markings/Markers		3%	\$	16,785
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	11,190
✓	Basic Landscaping		4%	\$	22,380
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 83,924
Paving and Allowance Subtotal:					\$ 643,417
Construction Contingency:					15% \$ 96,513
Construction Cost TOTAL:					\$ 740,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 740,000
Engineering/Survey/Testing:		20%	\$ 148,000
Mobilization		5%	\$ 37,000
Previous City contribution			\$ -
Other			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 925,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.
Name:	White Settlement (5) Academy to Legacy	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	<b>S-10</b>
Limits:			
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	2,050		
Service Area(s):	S		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	2,961	cy	\$ 17.00	\$ 50,339
202	6" Lime Stabilization (with Lime @ 32#/sy)	5,694	sy	\$ 4.00	\$ 22,778
302	11" Concrete Pavement	5,239	sy	\$ 55.00	\$ 288,139
402	6" Curb and Gutter	4,100	lf	\$ 7.00	\$ 28,700
502	4" Topsoil	0	sy	\$ 5.00	\$ -
602	6' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
701	Auxiliary Lanes and Median Openings Allotment	699	sf	\$ 59.00	\$ 41,233
Paving Construction Cost Subtotal:					\$ 431,189
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	12,936
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	12,936
✓	Pavement Markings/Markers		3%	\$	12,936
	Roadway Drainage	None Anticipated	0%	\$	-
	Illumination	None Anticipated	0%	\$	-
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	None Anticipated	0%	\$	-
	Sewer	None Anticipated	0%	\$	-
✓	Establish Turf / Erosion Control		2%	\$	8,624
✓	Basic Landscaping		4%	\$	17,248
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 64,678
Paving and Allowance Subtotal:					\$ 495,867
Construction Contingency:					15% \$ 74,380
Construction Cost TOTAL:					\$ 571,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 571,000
Engineering/Survey/Testing:		20%	\$ 114,200
Mobilization		5%	\$ 28,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 714,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-11
Name:	White Settlement (6) Legacy to White Settlement	<b>This project consists of the construction of the median lanes to complete the six-lane commercial connector.</b>		
Limits:				
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)			
Ultimate Class:	6 Lane Divided Commercial Connector			
Length (lf):	610			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
102	Unclassified Street Excavation	881	cy	\$ 17.00	\$ 14,979
202	6" Lime Stabilization (with Lime @ 32#/sy)	1,694	sy	\$ 4.00	\$ 6,778
302	11" Concrete Pavement	1,559	sy	\$ 55.00	\$ 85,739
402	6" Curb and Gutter	1,220	lf	\$ 7.00	\$ 8,540
502	4" Topsoil	0	sy	\$ 5.00	\$ -
602	6' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
701	Auxiliary Lanes and Median Openings Allotment	208	sf	\$ 59.00	\$ 12,269
Paving Construction Cost Subtotal:					\$ 128,305
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
√	Prep ROW	Construction Phase Traffic Control		3%	\$ 3,849
√	Traffic Control			3%	\$ 3,849
√	Pavement Markings/Markers			3%	\$ 3,849
	Roadway Drainage	None Anticipated		0%	\$ -
	Illumination	None Anticipated		0%	\$ -
	Special Drainage Structures	None Anticipated		\$ -	\$ -
	Water	None Anticipated		0%	\$ -
	Sewer	None Anticipated		0%	\$ -
√	Establish Turf / Erosion Control			2%	\$ 2,566
√	Basic Landscaping			4%	\$ 5,132
	Other:			\$0	\$ -
Allowance Subtotal:					\$ 19,246
Paving and Allowance Subtotal:					\$ 147,551
Construction Contingency:					15% \$ 22,133
Construction Cost TOTAL:					\$ 170,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 170,000
Engineering/Survey/Testing:		20%	\$ 34,000
Mobilization		5%	\$ 8,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 213,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-12
Name:	Westpoint (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
	3,525' W of Basset Locke to Basset			
Limits:	Locke			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,525			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,183	cy	\$ 17.00	\$ 173,117
230	6" Lime Stabilization (with Lime @ 32#/sy)	19,583	sy	\$ 4.00	\$ 78,333
330	11" Concrete Pavement	18,017	sy	\$ 55.00	\$ 990,917
430	6" Curb and Gutter	14,100	lf	\$ 7.00	\$ 98,700
530	4" Topsoil	17,233	sy	\$ 5.00	\$ 86,167
630	10' Concrete Sidewalk	70,500	sf	\$ 6.00	\$ 423,000
728	Auxiliary Lanes and Median Openings Allotment	1,415	sf	\$ 59.00	\$ 83,505
Paving Construction Cost Subtotal:					\$ 1,933,738
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	58,012
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	58,012
✓	Roadway Drainage	Standard Internal System	30%	\$	580,122
✓	Illumination		2%	\$	48,086
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	116,024
✓	Sewer	Minor Adjustments	4%	\$	77,350
✓	Establish Turf / Erosion Control		2%	\$	38,675
✓	Basic Landscaping		4%	\$	77,350
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,053,630
Paving and Allowance Subtotal:					\$ 2,987,368
Construction Contingency:					15% \$ 448,105
Construction Cost TOTAL:					\$ 3,436,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,436,000
Engineering/Survey/Testing:		20%	\$ 687,200
Mobilization		5%	\$ 171,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 687,200
Impact Fee Project Cost TOTAL:			\$ 4,982,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-13
Name:	Westpoint (2) Basset Locke to American Flyer	<b>This project consists of the construction of the southern lanes to complete a four-lane divided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,590			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	2,297	cy	\$ 17.00	\$ 39,043
231	6" Lime Stabilization (with Lime @ 32#/sy)	4,417	sy	\$ 4.00	\$ 17,667
331	11" Concrete Pavement	4,063	sy	\$ 55.00	\$ 223,483
431	6" Curb and Gutter	3,180	lf	\$ 7.00	\$ 22,260
531	4" Topsoil	3,887	sy	\$ 5.00	\$ 19,433
631	10' Concrete Sidewalk	15,900	sf	\$ 6.00	\$ 95,400
729	Auxiliary Lanes and Median Openings Allotment	638	sf	\$ 59.00	\$ 37,666
Paving Construction Cost Subtotal:					\$ 454,953
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	13,649
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	13,649
✓	Pavement Markings/Markers		3%	\$	13,649
✓	Roadway Drainage	Standard Internal System	30%	\$	136,486
✓	Illumination		2%	\$	11,313
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	27,297
✓	Sewer	Minor Adjustments	4%	\$	18,198
✓	Establish Turf / Erosion Control		2%	\$	9,099
✓	Basic Landscaping		4%	\$	18,198
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 261,537
Paving and Allowance Subtotal:					\$ 716,490
Construction Contingency:					15% \$ 107,474
Construction Cost TOTAL:					\$ 824,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 824,000
Engineering/Survey/Testing:		20%	\$ 164,800
Mobilization		5%	\$ 41,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 82,400
Impact Fee Project Cost TOTAL:			\$ 1,112,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-14
Name:	Westpoint (3) Academy to IH-820 SBFR	<b>This project consists of the reconstruction of the existing asphalt facility to a four-lane divided neighborhood connector with a wide median.</b>		
Limits:				
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	3,625			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	14,903	cy	\$ 17.00	\$ 253,347
213	6" Lime Stabilization (with Lime @ 32#/sy)	20,139	sy	\$ 4.00	\$ 80,556
313	11" Concrete Pavement	18,528	sy	\$ 55.00	\$ 1,019,028
413	6" Curb and Gutter	14,500	lf	\$ 7.00	\$ 101,500
513	4" Topsoil	25,778	sy	\$ 5.00	\$ 128,889
613	10' Concrete Sidewalk	72,500	sf	\$ 6.00	\$ 435,000
711	Auxiliary Lanes and Median Openings Allotment	1,455	sf	\$ 59.00	\$ 85,874
Paving Construction Cost Subtotal:					\$ 2,104,193
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	63,126
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	63,126
✓	Pavement Markings/Markers		3%	\$	63,126
✓	Roadway Drainage	Standard Internal System	30%	\$	631,258
✓	Illumination		2%	\$	52,324
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	126,252
✓	Sewer	Minor Adjustments	4%	\$	84,168
✓	Establish Turf / Erosion Control		2%	\$	42,084
✓	Basic Landscaping		4%	\$	84,168
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,209,631
Paving and Allowance Subtotal:					\$ 3,313,824
Construction Contingency:					15% \$ 497,074
Construction Cost TOTAL:					\$ 3,811,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,811,000
Engineering/Survey/Testing:		20%	\$ 762,200
Mobilization		5%	\$ 190,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 381,100
Impact Fee Project Cost TOTAL:			\$ 5,145,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-15
Name:	Old Weatherford (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:	3,510' W of Hickory Bend to 100' E of Hickory Bend			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,610			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,429	cy	\$ 17.00	\$ 177,291
230	6" Lime Stabilization (with Lime @ 32#/sy)	20,056	sy	\$ 4.00	\$ 80,222
330	11" Concrete Pavement	18,451	sy	\$ 55.00	\$ 1,014,811
430	6" Curb and Gutter	14,440	lf	\$ 7.00	\$ 101,080
530	4" Topsoil	17,649	sy	\$ 5.00	\$ 88,244
630	10' Concrete Sidewalk	72,200	sf	\$ 6.00	\$ 433,200
728	Auxiliary Lanes and Median Openings Allotment	1,449	sf	\$ 59.00	\$ 85,519
Paving Construction Cost Subtotal:					\$ 1,980,368
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	59,411
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	59,411
✓	Pavement Markings/Markers		3%	\$	59,411
✓	Roadway Drainage	Standard Internal System	30%	\$	594,110
✓	Illumination		2%	\$	49,245
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	118,822
✓	Sewer	Minor Adjustments	4%	\$	79,215
✓	Establish Turf / Erosion Control		2%	\$	39,607
✓	Basic Landscaping		4%	\$	79,215
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,138,447
Paving and Allowance Subtotal:					\$ 3,118,815
Construction Contingency:					15% \$ 467,822
Construction Cost TOTAL:					\$ 3,587,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,587,000
Engineering/Survey/Testing:		20%	\$ 717,400
Mobilization		5%	\$ 179,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 358,700
Impact Fee Project Cost TOTAL:			\$ 4,842,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No. S-16
Name:	Old Weatherford (4) 100' E of Hickory Bend to Chapel Creek	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,570		
Service Area(s):	S		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,424	cy	\$ 17.00	\$ 126,216
230	6" Lime Stabilization (with Lime @ 32#/sy)	14,278	sy	\$ 4.00	\$ 57,111
330	11" Concrete Pavement	13,136	sy	\$ 55.00	\$ 722,456
430	6" Curb and Gutter	10,280	lf	\$ 7.00	\$ 71,960
530	4" Topsoil	12,564	sy	\$ 5.00	\$ 62,822
630	10' Concrete Sidewalk	51,400	sf	\$ 6.00	\$ 308,400
728	Auxiliary Lanes and Median Openings Allotment	1,032	sf	\$ 59.00	\$ 60,882
Paving Construction Cost Subtotal:					\$ 1,409,846
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	42,295
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	42,295
✓	Pavement Markings/Markers		3%	\$	42,295
✓	Roadway Drainage	Standard Internal System	30%	\$	422,954
✓	Illumination		2%	\$	35,058
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	84,591
✓	Sewer	Minor Adjustments	4%	\$	56,394
✓	Establish Turf / Erosion Control		2%	\$	28,197
✓	Basic Landscaping		4%	\$	56,394
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 810,474
Paving and Allowance Subtotal:					\$ 2,220,320
Construction Contingency:					15% \$ 333,048
Construction Cost TOTAL:					\$ 2,554,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,554,000
Engineering/Survey/Testing:		20%	\$ 510,800
Mobilization		5%	\$ 127,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 255,400
Impact Fee Project Cost TOTAL:			\$ 3,448,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-17
Name:	Amber Ridge (1) Chapel Creek to Wind Star	<b>This project consists of the construction of the northern lanes to complete the four-lane divided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,390			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	2,008	cy	\$ 17.00	\$ 34,132
231	6" Lime Stabilization (with Lime @ 32#/sy)	3,861	sy	\$ 4.00	\$ 15,444
331	11" Concrete Pavement	3,552	sy	\$ 55.00	\$ 195,372
431	6" Curb and Gutter	2,780	lf	\$ 7.00	\$ 19,460
531	4" Topsoil	3,398	sy	\$ 5.00	\$ 16,989
631	10' Concrete Sidewalk	13,900	sf	\$ 6.00	\$ 83,400
729	Auxiliary Lanes and Median Openings Allotment	558	sf	\$ 59.00	\$ 32,928
Paving Construction Cost Subtotal:					\$ 397,726
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	11,932
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	11,932
✓	Pavement Markings/Markers		3%	\$	11,932
✓	Roadway Drainage	Standard Internal System	30%	\$	119,318
✓	Illumination		2%	\$	9,890
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	23,864
✓	Sewer	Minor Adjustments	4%	\$	15,909
✓	Establish Turf / Erosion Control		2%	\$	7,955
✓	Basic Landscaping		4%	\$	15,909
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 228,639
Paving and Allowance Subtotal:					\$ 626,365
Construction Contingency:					15% \$ 93,955
Construction Cost TOTAL:					\$ 721,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 721,000
Engineering/Survey/Testing:		20%	\$ 144,200
Mobilization		5%	\$ 36,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 72,100
Impact Fee Project Cost TOTAL:			\$ 973,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No. S-18
Name:	Amber Ridge (2) Wind Star to Academy (Future)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,255		
Service Area(s):	S		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	3,626	cy	\$ 17.00	\$ 61,634
230	6" Lime Stabilization (with Lime @ 32#/sy)	6,972	sy	\$ 4.00	\$ 27,889
330	11" Concrete Pavement	6,414	sy	\$ 55.00	\$ 352,794
430	6" Curb and Gutter	5,020	lf	\$ 7.00	\$ 35,140
530	4" Topsoil	6,136	sy	\$ 5.00	\$ 30,678
630	10' Concrete Sidewalk	25,100	sf	\$ 6.00	\$ 150,600
728	Auxiliary Lanes and Median Openings Allotment	504	sf	\$ 59.00	\$ 29,730
Paving Construction Cost Subtotal:					\$ 688,466
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	20,654
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	20,654
✓	Roadway Drainage	Standard Internal System	30%	\$	206,540
✓	Illumination		2%	\$	17,120
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	41,308
✓	Sewer	Minor Adjustments	4%	\$	27,539
✓	Establish Turf / Erosion Control		2%	\$	13,769
✓	Basic Landscaping		4%	\$	27,539
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 375,122
Paving and Allowance Subtotal:					\$ 1,063,588
Construction Contingency:					15% \$ 159,538
Construction Cost TOTAL:					\$ 1,224,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,224,000
Engineering/Survey/Testing:		20%	\$ 244,800
Mobilization		5%	\$ 61,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 244,800
Impact Fee Project Cost TOTAL:			\$ 1,775,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-19
Name:	Amber Ridge (3) Academy (Future) to 920' E of Academy (Future)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>		
Limits:	NCO-L1-T0-TWLT-P0-BOP (80)			
Impact Fee Class:	3 Lane Undivided Neighborhood Connector			
Ultimate Class:	920			
Length (lf):	S			
Service Area(s):				

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	1,891	cy	\$ 17.00	\$ 32,149
241	6" Lime Stabilization (with Lime @ 32#/sy)	3,680	sy	\$ 4.00	\$ 14,720
341	11" Concrete Pavement	3,476	sy	\$ 55.00	\$ 191,156
441	6" Curb and Gutter	1,840	lf	\$ 7.00	\$ 12,880
541	4" Topsoil	2,658	sy	\$ 5.00	\$ 13,289
641	10' Concrete Sidewalk	18,400	sf	\$ 6.00	\$ 110,400
739	Auxiliary Lanes and Median Openings Allotment	157	sf	\$ 59.00	\$ 9,252
Paving Construction Cost Subtotal:					\$ 383,846
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	11,515
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	11,515
✓	Roadway Drainage	Standard Internal System	30%	\$	115,154
✓	Illumination		2%	\$	9,545
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	23,031
✓	Sewer	Minor Adjustments	4%	\$	15,354
✓	Establish Turf / Erosion Control		2%	\$	7,677
✓	Basic Landscaping		4%	\$	15,354
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 209,145
Paving and Allowance Subtotal:					\$ 592,990
Construction Contingency:					15% \$ 88,949
Construction Cost TOTAL:					\$ 682,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 682,000
Engineering/Survey/Testing:		20%	\$ 136,400
Mobilization		5%	\$ 34,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 136,400
Impact Fee Project Cost TOTAL:			\$ 989,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-20
Name:	Amber Ridge (4)	<b>This project consists of the construction of a new three-lane undivided commercial connector.</b>		
Limits:	920' E of Academy (Future) to Settlement Plaza (Future)			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	640			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	1,387	cy	\$ 17.00	\$ 23,573
239	6" Lime Stabilization (with Lime @ 32#/sy)	2,702	sy	\$ 4.00	\$ 10,809
339	11" Concrete Pavement	2,560	sy	\$ 55.00	\$ 140,800
439	6" Curb and Gutter	1,280	lf	\$ 7.00	\$ 8,960
539	4" Topsoil	1,707	sy	\$ 5.00	\$ 8,533
639	10' Concrete Sidewalk	12,800	sf	\$ 6.00	\$ 76,800
737	Auxiliary Lanes and Median Openings Allotment	109	sf	\$ 59.00	\$ 6,436
Paving Construction Cost Subtotal:					\$ 275,912
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	8,277
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	8,277
✓	Roadway Drainage	Standard Internal System	30%	\$	82,774
✓	Illumination		2%	\$	6,861
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	16,555
✓	Sewer	Minor Adjustments	4%	\$	11,036
✓	Establish Turf / Erosion Control		2%	\$	5,518
✓	Basic Landscaping		4%	\$	11,036
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 150,335
Paving and Allowance Subtotal:					\$ 426,247
Construction Contingency:					15% \$ 63,937
Construction Cost TOTAL:					\$ 491,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 491,000
Engineering/Survey/Testing:		20%	\$ 98,200
Mobilization		5%	\$ 24,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 98,200
Impact Fee Project Cost TOTAL:			\$ 712,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-21
Name:	Amber Ridge (5) Settlement Plaza (Future) to IH 820	<b>This project consists of the construction of a new three-lane undivided commercial connector.</b>		
Limits:	SBFR			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	2,565			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	5,558	cy	\$ 17.00	\$ 94,478
239	6" Lime Stabilization (with Lime @ 32#/sy)	10,830	sy	\$ 4.00	\$ 43,320
339	11" Concrete Pavement	10,260	sy	\$ 55.00	\$ 564,300
439	6" Curb and Gutter	5,130	lf	\$ 7.00	\$ 35,910
539	4" Topsoil	6,840	sy	\$ 5.00	\$ 34,200
639	10' Concrete Sidewalk	51,300	sf	\$ 6.00	\$ 307,800
737	Auxiliary Lanes and Median Openings Allotment	437	sf	\$ 59.00	\$ 25,796
Paving Construction Cost Subtotal:					\$ 1,105,803
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	33,174
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	33,174
✓	Roadway Drainage	Standard Internal System	30%	\$	331,741
✓	Illumination		2%	\$	27,498
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	66,348
✓	Sewer	Minor Adjustments	4%	\$	44,232
✓	Establish Turf / Erosion Control		2%	\$	22,116
✓	Basic Landscaping		4%	\$	44,232
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 602,515
Paving and Allowance Subtotal:					\$ 1,708,319
Construction Contingency:					15% \$ 256,248
Construction Cost TOTAL:					\$ 1,965,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,965,000
Engineering/Survey/Testing:		20%	\$ 393,000
Mobilization		5%	\$ 98,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 393,000
Impact Fee Project Cost TOTAL:			\$ 2,849,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-22
Name:	Chapin (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:	3,155' W of Whitetail Chase to 1,370' W of Whitetail Chase			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,785			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	3,669	cy	\$ 17.00	\$ 62,376
241	6" Lime Stabilization (with Lime @ 32#/sy)	7,140	sy	\$ 4.00	\$ 28,560
341	11" Concrete Pavement	6,743	sy	\$ 55.00	\$ 370,883
441	6" Curb and Gutter	3,570	lf	\$ 7.00	\$ 24,990
541	4" Topsoil	5,157	sy	\$ 5.00	\$ 25,783
641	10' Concrete Sidewalk	35,700	sf	\$ 6.00	\$ 214,200
739	Auxiliary Lanes and Median Openings Allotment	304	sf	\$ 59.00	\$ 17,951
Paving Construction Cost Subtotal:					\$ 744,744
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	22,342
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	22,342
✓	Pavement Markings/Markers		3%	\$	22,342
✓	Roadway Drainage	Standard Internal System	30%	\$	223,423
✓	Illumination		2%	\$	18,519
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	44,685
✓	Sewer	Minor Adjustments	4%	\$	29,790
✓	Establish Turf / Erosion Control		2%	\$	14,895
✓	Basic Landscaping		4%	\$	29,790
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 428,128
Paving and Allowance Subtotal:					\$ 1,172,872
Construction Contingency:					15% \$ 175,931
Construction Cost TOTAL:					\$ 1,349,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,349,000
Engineering/Survey/Testing:		20%	\$ 269,800
Mobilization		5%	\$ 67,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 134,900
Impact Fee Project Cost TOTAL:			\$ 1,821,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-23
Name:	Chapin (2)	<b>This project consists of the construction of a new three-lane undivided neighborhood.</b>		
Limits:	1,370' W of Whitetail Chase to 130' W of Whitetail Chase			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,240			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	2,549	cy	\$ 17.00	\$ 43,331
241	6" Lime Stabilization (with Lime @ 32#/sy)	4,960	sy	\$ 4.00	\$ 19,840
341	11" Concrete Pavement	4,684	sy	\$ 55.00	\$ 257,644
441	6" Curb and Gutter	2,480	lf	\$ 7.00	\$ 17,360
541	4" Topsoil	3,582	sy	\$ 5.00	\$ 17,911
641	10' Concrete Sidewalk	24,800	sf	\$ 6.00	\$ 148,800
739	Auxiliary Lanes and Median Openings Allotment	211	sf	\$ 59.00	\$ 12,470
Paving Construction Cost Subtotal:					\$ 517,357
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	15,521
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	15,521
✓	Roadway Drainage	Standard Internal System	30%	\$	155,207
✓	Illumination		2%	\$	12,865
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	31,041
✓	Sewer	Minor Adjustments	4%	\$	20,694
✓	Establish Turf / Erosion Control		2%	\$	10,347
✓	Basic Landscaping		4%	\$	20,694
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 281,891
Paving and Allowance Subtotal:					\$ 799,248
Construction Contingency:					15% \$ 119,887
Construction Cost TOTAL:					\$ 920,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 920,000
Engineering/Survey/Testing:		20%	\$ 184,000
Mobilization		5%	\$ 46,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 184,000
Impact Fee Project Cost TOTAL:			\$ 1,334,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-24
Name:	WR #7	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	3,635' N of Old Weatherford to Old Weatherford			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,635			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,501	cy	\$ 17.00	\$ 178,519
230	6" Lime Stabilization (with Lime @ 32#/sy)	20,194	sy	\$ 4.00	\$ 80,778
330	11" Concrete Pavement	18,579	sy	\$ 55.00	\$ 1,021,839
430	6" Curb and Gutter	14,540	lf	\$ 7.00	\$ 101,780
530	4" Topsoil	17,771	sy	\$ 5.00	\$ 88,856
630	10' Concrete Sidewalk	72,700	sf	\$ 6.00	\$ 436,200
728	Auxiliary Lanes and Median Openings Allotment	1,460	sf	\$ 59.00	\$ 86,111
Paving Construction Cost Subtotal:					\$ 1,994,082
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	59,822
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	59,822
✓	Roadway Drainage	Standard Internal System	30%	\$	598,225
✓	Illumination		2%	\$	49,586
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	119,645
✓	Sewer	Minor Adjustments	4%	\$	79,763
✓	Establish Turf / Erosion Control		2%	\$	39,882
✓	Basic Landscaping		4%	\$	79,763
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,086,509
Paving and Allowance Subtotal:					\$ 3,080,591
Construction Contingency:					15% \$ 462,089
Construction Cost TOTAL:					\$ 3,543,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,543,000
Engineering/Survey/Testing:		20%	\$ 708,600
Mobilization		5%	\$ 177,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 708,600
Impact Fee Project Cost TOTAL:			\$ 5,137,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-24
Name:	WR #7	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	3,635' N of Old Weatherford to Old Weatherford			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,635			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,501	cy	\$ 17.00	\$ 178,519
230	6" Lime Stabilization (with Lime @ 32#/sy)	20,194	sy	\$ 4.00	\$ 80,778
330	11" Concrete Pavement	18,579	sy	\$ 55.00	\$ 1,021,839
430	6" Curb and Gutter	14,540	lf	\$ 7.00	\$ 101,780
530	4" Topsoil	17,771	sy	\$ 5.00	\$ 88,856
630	10' Concrete Sidewalk	72,700	sf	\$ 6.00	\$ 436,200
728	Auxiliary Lanes and Median Openings Allotment	1,460	sf	\$ 59.00	\$ 86,111
Paving Construction Cost Subtotal:					\$ 1,994,082
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	59,822
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	59,822
✓	Roadway Drainage	Standard Internal System	30%	\$	598,225
✓	Illumination		2%	\$	49,586
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	119,645
✓	Sewer	Minor Adjustments	4%	\$	79,763
✓	Establish Turf / Erosion Control		2%	\$	39,882
✓	Basic Landscaping		4%	\$	79,763
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,086,509
Paving and Allowance Subtotal:					\$ 3,080,591
Construction Contingency:					15% \$ 462,089
Construction Cost TOTAL:					\$ 3,543,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,543,000
Engineering/Survey/Testing:		20%	\$ 708,600
Mobilization		5%	\$ 177,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 708,600
Impact Fee Project Cost TOTAL:			\$ 5,137,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-25
Name:	Silver Ridge	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	135' S of Broken Arrow to 110' N of Fandor			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,680			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,742	cy	\$ 17.00	\$ 131,618
230	6" Lime Stabilization (with Lime @ 32#/sy)	14,889	sy	\$ 4.00	\$ 59,556
330	11" Concrete Pavement	13,698	sy	\$ 55.00	\$ 753,378
430	6" Curb and Gutter	10,720	lf	\$ 7.00	\$ 75,040
530	4" Topsoil	13,102	sy	\$ 5.00	\$ 65,511
630	10' Concrete Sidewalk	53,600	sf	\$ 6.00	\$ 321,600
728	Auxiliary Lanes and Median Openings Allotment	1,076	sf	\$ 59.00	\$ 63,488
Paving Construction Cost Subtotal:					\$ 1,470,190
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	44,106
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	44,106
✓	Roadway Drainage	Standard Internal System	30%	\$	441,057
✓	Illumination		2%	\$	36,559
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	88,211
✓	Sewer	Minor Adjustments	4%	\$	58,808
✓	Establish Turf / Erosion Control		2%	\$	29,404
✓	Basic Landscaping		4%	\$	58,808
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 801,057
Paving and Allowance Subtotal:					\$ 2,271,247
Construction Contingency:					15% \$ 340,687
Construction Cost TOTAL:					\$ 2,612,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,612,000
Engineering/Survey/Testing:		20%	\$ 522,400
Mobilization		5%	\$ 130,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 522,400
Impact Fee Project Cost TOTAL:			\$ 3,787,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated: 10/3/2017

Project Information:		Description:	Project No.	S-26
Name:	Chapel Creek Chapin to IH 30	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane undivided neighborhood connector. The City contributed \$967,698 overall to this project.</b>		
Limits:				
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	905			
Service Area(s):	S			

Impact Fee Project Cost Summary		
<b>Impact Fee Project Cost TOTAL:</b>		<b>\$ 967,698</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-27
Name:	Academy (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	Silver Creek (Future) to 125' N of Sparrow Hawk			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,990			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	8,638	cy	\$ 17.00	\$ 146,842
230	6" Lime Stabilization (with Lime @ 32#/sy)	16,611	sy	\$ 4.00	\$ 66,444
330	11" Concrete Pavement	15,282	sy	\$ 55.00	\$ 840,522
430	6" Curb and Gutter	11,960	lf	\$ 7.00	\$ 83,720
530	4" Topsoil	14,618	sy	\$ 5.00	\$ 73,089
630	10' Concrete Sidewalk	59,800	sf	\$ 6.00	\$ 358,800
728	Auxiliary Lanes and Median Openings Allotment	1,201	sf	\$ 59.00	\$ 70,831
Paving Construction Cost Subtotal:					\$ 1,640,249
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	49,207
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	49,207
✓	Roadway Drainage	Standard Internal System	30%	\$	492,075
✓	Illumination		2%	\$	40,788
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	98,415
✓	Sewer	Minor Adjustments	4%	\$	65,610
✓	Establish Turf / Erosion Control		2%	\$	32,805
✓	Basic Landscaping		4%	\$	65,610
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 893,717
Paving and Allowance Subtotal:					\$ 2,533,966
Construction Contingency:					15% \$ 380,095
Construction Cost TOTAL:					\$ 2,915,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,915,000
Engineering/Survey/Testing:		20%	\$ 583,000
Mobilization		5%	\$ 145,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 583,000
Impact Fee Project Cost TOTAL:			\$ 4,227,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-28
Name:	Academy (2)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	300' S of Westpoint to Amber Ridge (Future)			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,920			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	5,547	cy	\$ 17.00	\$ 94,293
230	6" Lime Stabilization (with Lime @ 32#/sy)	10,667	sy	\$ 4.00	\$ 42,667
330	11" Concrete Pavement	9,813	sy	\$ 55.00	\$ 539,733
430	6" Curb and Gutter	7,680	lf	\$ 7.00	\$ 53,760
530	4" Topsoil	9,387	sy	\$ 5.00	\$ 46,933
630	10' Concrete Sidewalk	38,400	sf	\$ 6.00	\$ 230,400
728	Auxiliary Lanes and Median Openings Allotment	771	sf	\$ 59.00	\$ 45,484
Paving Construction Cost Subtotal:					\$ 1,053,270
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	31,598
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	31,598
✓	Roadway Drainage	Standard Internal System	30%	\$	315,981
✓	Illumination		2%	\$	26,191
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	63,196
✓	Sewer	Minor Adjustments	4%	\$	42,131
✓	Establish Turf / Erosion Control		2%	\$	21,065
✓	Basic Landscaping		4%	\$	42,131
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 573,892
Paving and Allowance Subtotal:					\$ 1,627,162
Construction Contingency:					15% \$ 244,074
Construction Cost TOTAL:					\$ 1,872,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,872,000
Engineering/Survey/Testing:		20%	\$ 374,400
Mobilization		5%	\$ 93,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 374,400
Impact Fee Project Cost TOTAL:			\$ 2,714,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-29
Name:	Academy (3)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	Amber Ridge (Future) to IH 30 WBFR			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	2,695			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	8,085	cy	\$ 17.00	\$ 137,445
223	6" Lime Stabilization (with Lime @ 32#/sy)	15,571	sy	\$ 4.00	\$ 62,284
323	11" Concrete Pavement	14,373	sy	\$ 55.00	\$ 790,533
423	6" Curb and Gutter	10,780	lf	\$ 7.00	\$ 75,460
523	4" Topsoil	12,577	sy	\$ 5.00	\$ 62,883
623	10' Concrete Sidewalk	53,900	sf	\$ 6.00	\$ 323,400
721	Auxiliary Lanes and Median Openings Allotment	1,082	sf	\$ 59.00	\$ 63,843
Paving Construction Cost Subtotal:					\$ 1,515,849
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	45,475
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	45,475
✓	Roadway Drainage	Standard Internal System	30%	\$	454,755
✓	Illumination		2%	\$	37,694
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	90,951
✓	Sewer	Minor Adjustments	4%	\$	60,634
✓	Establish Turf / Erosion Control		2%	\$	30,317
✓	Basic Landscaping		4%	\$	60,634
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 825,936
Paving and Allowance Subtotal:					\$ 2,341,785
Construction Contingency:					15% \$ 351,268
Construction Cost TOTAL:					\$ 2,694,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,694,000
Engineering/Survey/Testing:		20%	\$ 538,800
Mobilization		5%	\$ 134,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 538,800
Impact Fee Project Cost TOTAL:			\$ 3,906,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 10/3/2017

Project Information:		Description:	Project No.	S-30
Name:	Settlement Plaza Westpoint to Amber Ridge (Future)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>		
Limits:				
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,395			
Service Area(s):	S			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	2,868	cy	\$ 17.00	\$ 48,748
241	6" Lime Stabilization (with Lime @ 32#/sy)	5,580	sy	\$ 4.00	\$ 22,320
341	11" Concrete Pavement	5,270	sy	\$ 55.00	\$ 289,850
441	6" Curb and Gutter	2,790	lf	\$ 7.00	\$ 19,530
541	4" Topsoil	4,030	sy	\$ 5.00	\$ 20,150
641	10' Concrete Sidewalk	27,900	sf	\$ 6.00	\$ 167,400
739	Auxiliary Lanes and Median Openings Allotment	238	sf	\$ 59.00	\$ 14,029
Paving Construction Cost Subtotal:					\$ 582,027
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	17,461
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	17,461
✓	Roadway Drainage	Standard Internal System	30%	\$	174,608
✓	Illumination		2%	\$	14,473
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	34,922
✓	Sewer	Minor Adjustments	4%	\$	23,281
✓	Establish Turf / Erosion Control		2%	\$	11,641
✓	Basic Landscaping		4%	\$	23,281
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 317,127
Paving and Allowance Subtotal:					\$ 899,154
Construction Contingency:					15% \$ 134,873
Construction Cost TOTAL:					\$ 1,035,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,035,000
Engineering/Survey/Testing:		20%	\$ 207,000
Mobilization		5%	\$ 51,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 207,000
Impact Fee Project Cost TOTAL:			\$ 1,501,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

## Appendix A – Service Area T



City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area T

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
T-1	NCO-L1-T0-TWLT-P0-BOP (80)	Chapin (3)	Camp Bowie to Longvue	New	100%	\$ 3,439,000	\$ 3,439,000
T-2	NCO-L2-T0-NTMS-P0-BOP (110)	Chapin (4)	Longvue to 965' W of Alemda	Widening	100%	\$ 3,575,000	\$ 3,575,000
T-3	NCO-L2-T0-NTMS-P0-BOP (110)	Chapin (5)	965' W of Alemda to Alemeda	New	100%	\$ 1,364,000	\$ 1,364,000
T-4	CCO-L2-T0-TWLT-P0-BOP (110)	Chapin (6)	Alemeda to IH-820	Widening	100%	\$ 1,975,000	\$ 1,975,000
T-5	CCO-L1-T0-TWLT-P0-BOP (80)	Alemeda (1)	Camp Bowie West to 545' S of Camp Bowie West	New	100%	\$ 606,000	\$ 606,000
T-6	CCO-L1-T0-TWLT-P0-BOP (80)	Alemeda (2)	545' S of Camp Bowie West to Chapin	Widening	100%	\$ 1,882,000	\$ 1,882,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Calmont	Cherry	Retrofit	50%	\$ 720,000	\$ 360,000
	Roundabout	Calmont	Shenandoah Rd	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Roundabout	Calmont	Laredo Dr	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Camp Bowie West	Alameda	Rebuild	100%	\$ 500,000	\$ 500,000
	Turn Lane Improvements	Camp Bowie West	Chapel Creek	Rebuild	100%	\$ 900,000	\$ 900,000
	Turn Lane Improvements	Camp Bowie West	Cherry	Retrofit	75%	\$ 360,000	\$ 270,000
	Turn Lane Improvements	Camp Bowie West	Las Vegas	Retrofit	100%	\$ 475,000	\$ 475,000
	Turn Lane Improvements	Camp Bowie West	Longuvue	Retrofit	100%	\$ 1,180,000	\$ 1,180,000
	Turn Lane Improvements	Chapin	Alemeda	Rebuild	100%	\$ 400,000	\$ 400,000
	Turn Lane Improvements	Chapin	Longvue	Rebuild	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Normandale	Alameda	Retrofit	100%	\$ 2,500,000	\$ 2,500,000

**NOTES:**  
1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.  
2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	T-1
Name:	Chapin (3)	<b>This project consists of the construction of a new three lane undivided neighborhood connector.</b>		
Limits:	Camp Bowie to Longvue			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	3200			
Service Area(s):	T			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	6,578	cy	\$ 17.00	\$ 111,822
241	6" Lime Stabilization (with Lime @ 32#/sy)	12,800	sy	\$ 4.00	\$ 51,200
341	11" Concrete Pavement	12,089	sy	\$ 55.00	\$ 664,889
441	6" Curb and Gutter	6,400	lf	\$ 7.00	\$ 44,800
541	4" Topsoil	9,244	sy	\$ 5.00	\$ 46,222
641	10' Concrete Sidewalk	64,000	sf	\$ 6.00	\$ 384,000
739	Auxiliary Lanes and Median Openings Allotment	545	sf	\$ 59.00	\$ 32,182
Paving Construction Cost Subtotal:					\$ 1,335,115
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	40,053
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	40,053
✓	Roadway Drainage	Standard Internal System	30%	\$	400,535
✓	Illumination		2%	\$	33,200
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	80,107
✓	Sewer	Minor Adjustments	4%	\$	53,405
✓	Establish Turf / Erosion Control		2%	\$	26,702
✓	Basic Landscaping		4%	\$	53,405
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 727,460
Paving and Allowance Subtotal:					\$ 2,062,575
Construction Contingency: 15%					\$ 309,386
Construction Cost TOTAL:					\$ 2,372,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,372,000
Engineering/Survey/Testing:		20%	\$ 474,400
Mobilization		5%	\$ 118,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 474,400
Impact Fee Project Cost TOTAL:			\$ 3,439,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	T-2
Name:	Chapin (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:	Longvue to 965' W of Alemnda			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2665			
Service Area(s):	T			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,699	cy	\$ 17.00	\$ 130,881
230	6" Lime Stabilization (with Lime @ 32#/sy)	14,806	sy	\$ 4.00	\$ 59,222
330	11" Concrete Pavement	13,621	sy	\$ 55.00	\$ 749,161
430	6" Curb and Gutter	10,660	lf	\$ 7.00	\$ 74,620
530	4" Topsoil	13,029	sy	\$ 5.00	\$ 65,144
630	10' Concrete Sidewalk	53,300	sf	\$ 6.00	\$ 319,800
728	Auxiliary Lanes and Median Openings Allotment	1,070	sf	\$ 59.00	\$ 63,132
Paving Construction Cost Subtotal:					\$ 1,461,961
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	43,859
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	43,859
✓	Pavement Markings/Markers		3%	\$	43,859
✓	Roadway Drainage	Standard Internal System	30%	\$	438,588
✓	Illumination		2%	\$	36,354
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	87,718
✓	Sewer	Minor Adjustments	4%	\$	58,478
✓	Establish Turf / Erosion Control		2%	\$	29,239
✓	Basic Landscaping		4%	\$	58,478
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 840,433
Paving and Allowance Subtotal:					\$ 2,302,394
Construction Contingency:					15% \$ 345,359
Construction Cost TOTAL:					\$ 2,648,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,648,000
Engineering/Survey/Testing:		20%	\$ 529,600
Mobilization		5%	\$ 132,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 264,800
Impact Fee Project Cost TOTAL:			\$ 3,575,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	T-3
Name:	Chapin (5)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	965' W of Alemda to Alemeda			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	965			
Service Area(s):	T			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	2,788	cy	\$ 17.00	\$ 47,392
230	6" Lime Stabilization (with Lime @ 32#/sy)	5,361	sy	\$ 4.00	\$ 21,444
330	11" Concrete Pavement	4,932	sy	\$ 55.00	\$ 271,272
430	6" Curb and Gutter	3,860	lf	\$ 7.00	\$ 27,020
530	4" Topsoil	4,718	sy	\$ 5.00	\$ 23,589
630	10' Concrete Sidewalk	19,300	sf	\$ 6.00	\$ 115,800
728	Auxiliary Lanes and Median Openings Allotment	387	sf	\$ 59.00	\$ 22,860
Paving Construction Cost Subtotal:					\$ 529,378
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	15,881
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	15,881
✓	Roadway Drainage		30%	\$	158,813
✓	Illumination		2%	\$	13,164
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	31,763
✓	Sewer	Minor Adjustments	4%	\$	21,175
✓	Establish Turf / Erosion Control		2%	\$	10,588
✓	Basic Landscaping		4%	\$	21,175
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 288,440
Paving and Allowance Subtotal:					\$ 817,818
Construction Contingency:					15% \$ 122,673
Construction Cost TOTAL:					\$ 941,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 941,000
Engineering/Survey/Testing:		20%	\$ 188,200
Mobilization		5%	\$ 47,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 188,200
Impact Fee Project Cost TOTAL:			\$ 1,364,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	T-4
Name:	Chapin (6)	<b>This project consists of the reconstruction of the existing facility as a five-lane undivided commercial connector.</b>		
Limits:	Alemeda to IH-820			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	1345			
Service Area(s):	T			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	4,558	cy	\$ 17.00	\$ 77,487
225	6" Lime Stabilization (with Lime @ 32#/sy)	8,967	sy	\$ 4.00	\$ 35,867
325	11" Concrete Pavement	8,668	sy	\$ 55.00	\$ 476,728
425	6" Curb and Gutter	2,690	lf	\$ 7.00	\$ 18,830
525	4" Topsoil	4,782	sy	\$ 5.00	\$ 23,911
625	10' Concrete Sidewalk	26,900	sf	\$ 6.00	\$ 161,400
723	Auxiliary Lanes and Median Openings Allotment	229	sf	\$ 59.00	\$ 13,526
Paving Construction Cost Subtotal:					\$ 807,749
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	24,232
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	24,232
✓	Pavement Markings/Markers		3%	\$	24,232
✓	Roadway Drainage	Standard Internal System	30%	\$	242,325
✓	Illumination		2%	\$	20,086
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	48,465
✓	Sewer	Minor Adjustments	4%	\$	32,310
✓	Establish Turf / Erosion Control		2%	\$	16,155
✓	Basic Landscaping		4%	\$	32,310
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 464,348
Paving and Allowance Subtotal:					\$ 1,272,097
Construction Contingency: 15%					\$ 190,815
Construction Cost TOTAL:					\$ 1,463,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,463,000
Engineering/Survey/Testing:		20%	\$ 292,600
Mobilization		5%	\$ 73,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 146,300
Impact Fee Project Cost TOTAL:			\$ 1,975,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	T-5
Name:	Alemeda (1)	<b>This project consists of the construction of a new three-lane undivided commercial connector.</b>		
Limits:	Camp Bowie West to 545' S of Camp Bowie West			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	545			
Service Area(s):	T			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	1,181	cy	\$ 17.00	\$ 20,074
239	6" Lime Stabilization (with Lime @ 32#/sy)	2,301	sy	\$ 4.00	\$ 9,204
339	11" Concrete Pavement	2,180	sy	\$ 55.00	\$ 119,900
439	6" Curb and Gutter	1,090	lf	\$ 7.00	\$ 7,630
539	4" Topsoil	1,453	sy	\$ 5.00	\$ 7,267
639	10' Concrete Sidewalk	10,900	sf	\$ 6.00	\$ 65,400
737	Auxiliary Lanes and Median Openings Allotment	93	sf	\$ 59.00	\$ 5,481
Paving Construction Cost Subtotal:					\$ 234,956
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	7,049
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	7,049
✓	Roadway Drainage	Standard Internal System	30%	\$	70,487
✓	Illumination		2%	\$	5,843
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	14,097
✓	Sewer	Minor Adjustments	4%	\$	9,398
✓	Establish Turf / Erosion Control		2%	\$	4,699
✓	Basic Landscaping		4%	\$	9,398
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 128,020
Paving and Allowance Subtotal:					\$ 362,976
Construction Contingency: 15%					\$ 54,446
Construction Cost TOTAL:					\$ 418,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 418,000
Engineering/Survey/Testing:		20%	\$ 83,600
Mobilization		5%	\$ 20,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 83,600
Impact Fee Project Cost TOTAL:			\$ 606,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	T-6
Name:	Alemeda (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided commercial connector.</b>		
Limits:	545' S of Camp Bowie West to Chapin			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	1785			
Service Area(s):	T			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	3,868	cy	\$ 17.00	\$ 65,748
239	6" Lime Stabilization (with Lime @ 32#/sy)	7,537	sy	\$ 4.00	\$ 30,147
339	11" Concrete Pavement	7,140	sy	\$ 55.00	\$ 392,700
439	6" Curb and Gutter	3,570	lf	\$ 7.00	\$ 24,990
539	4" Topsoil	4,760	sy	\$ 5.00	\$ 23,800
639	10' Concrete Sidewalk	35,700	sf	\$ 6.00	\$ 214,200
737	Auxiliary Lanes and Median Openings Allotment	304	sf	\$ 59.00	\$ 17,951
Paving Construction Cost Subtotal:					\$ 769,536
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	23,086
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	23,086
✓	Pavement Markings/Markers		3%	\$	23,086
✓	Roadway Drainage	Standard Internal System	30%	\$	230,861
✓	Illumination		2%	\$	19,136
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	46,172
✓	Sewer	Minor Adjustments	4%	\$	30,781
✓	Establish Turf / Erosion Control		2%	\$	15,391
✓	Basic Landscaping		4%	\$	30,781
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 442,380
Paving and Allowance Subtotal:					\$ 1,211,916
Construction Contingency: 15%					\$ 181,787
Construction Cost TOTAL:					\$ 1,394,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,394,000
Engineering/Survey/Testing:		20%	\$ 278,800
Mobilization		5%	\$ 69,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 139,400
Impact Fee Project Cost TOTAL:			\$ 1,882,000

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The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**Appendix A - Service Area U**

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area U

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
U-1	NCO-L2-T0-TWLT-P0-BOP (110)	Old Weatherford (1)	3,500' W of Walsh Ranch to Walsh Ranch	Widening	100%	\$ 5,021,000	\$ 5,021,000.00
U-2	NCO-L2-T0-NTMS-P0-BOP (110)	Old Weatherford (2)	Walsh Ranch to 1,355' E of Walsh Ranch	Widening	100%	\$ 1,818,000	\$ 1,818,000.00
U-3	CCO-L2-T0-NTMS-P0-BOP (110)	Quail Meadow (1)	FM 3325 to WR #5	New	100%	\$ 7,731,000	\$ 7,731,000.00
U-4	CCO-L2-T0-NTMS-P0-BLC (110)	Quail Meadow (2)	WR #5 to 240' W of Walsh Ranch	New	100%	\$ 12,930,000	\$ 12,930,000.00
U-5	CCO-L2-T0-NTMS-P0-BLC (110)	Quail Meadow (3)	610' E of Walsh Ranch to WR #7	New	100%	\$ 7,927,000	\$ 7,927,000.00
U-6	CCO-L2-T0-NTMS-P0-BLC (110)	Quail Meadow (4)	WR #7 to IH-30	New	100%	\$ 2,888,000	\$ 2,888,000.00
U-7	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (1)	1,880' W of WR #5 to WR #5	New	100%	\$ 2,909,000	\$ 2,909,000.00
U-8	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (2)	WR #5 to WR #6	New	100%	\$ 4,163,000	\$ 4,163,000.00
U-9	CCO-L2-T0-TWLT-P0-BOP (110)	WR #1 (3)	WR #6 to Walsh Ranch	New	100%	\$ 11,535,000	\$ 11,535,000.00
U-10	CCO-L2-T0-NTMS-P0-BOP (110)	WR #1 (4)	Walsh Ranch to WR #7	New	100%	\$ 12,759,000	\$ 12,759,000.00
U-11	CCO-L2-T0-NTMS-P0-BOP (110)	WR #1 (5)	WR #7 to 2745' E of WR #7	New	100%	\$ 3,979,000	\$ 3,979,000.00
U-12	NCO-L2-T0-NTMS-P0-BOP (110)	WR #2 (1)	3,645' W of Walsh Ranch to Walsh Ranch	New	100%	\$ 5,152,000	\$ 5,152,000.00
U-13	NCO-L2-T0-TWLT-P0-BOP (110)	WR #2 (2)	Walsh Ranch to WR #1	New	100%	\$ 4,572,000	\$ 4,572,000.00
U-14	NCO-L2-T0-TWLT-P0-BOP (110)	WR #3 (1)	2,685' W of Walsh Ranch to Walsh Ranch	New	100%	\$ 4,059,000	\$ 4,059,000.00
U-15	NCO-L2-T0-TWLT-P0-BOP (110)	WR #3 (2)	Walsh Ranch to WR #7	New	100%	\$ 11,116,000	\$ 11,116,000.00
U-16	NCO-L2-T0-TWLT-P0-BOP (110)	WR #3 (3)	WR #7 to 3,590' E of WR #7	New	100%	\$ 5,426,000	\$ 5,426,000.00
U-17	NCO-L2-T0-TWLT-P0-BOP (110)	Aledo Rd	WR #3 to 515' E of WR #3	Widening	100%	\$ 740,000	\$ 740,000.00
U-18	NCO-L1-T0-TWLT-P0-BOP (80)	WR #4	1,295' W of Walsh Ranch to Walsh Ranch	New	100%	\$ 1,392,000	\$ 1,392,000.00
U-19	CCO-L2-T0-NTMS-P0-BOP (110)	WR #5 (1)	Old Weatherford to 1,960' S of Old Weatherford	New	100%	\$ 2,841,000	\$ 2,841,000.00
U-20	CCO-L2-T0-NTMS-P0-BOP (110)	WR #5 (2)	1,960' S of Old Weatherford to Quail Meadow	New	100%	\$ 4,891,000	\$ 4,891,000.00
U-21	CCO-L2-T0-TWLT-P0-BOP (110)	WR #5 (3)	Quail Meadow to IH-20	New	100%	\$ 2,027,000	\$ 2,027,000.00
U-22	CCO-L2-T0-TWLT-P0-BOP (110)	WR #5 (4)	IH-20 to WR #1	New	100%	\$ 4,966,000	\$ 4,966,000.00
U-23	CCO-L1-T0-TWLT-P0-BOP (80)	WR #6	IH-20 to WR #1	New	100%	\$ 1,756,000	\$ 1,756,000.00
U-24	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (1)	Old Weatherford to Marys Ridge	New	100%	\$ 1,032,000	\$ 1,032,000.00
U-25	NCO-L3-T0-NTMS-P0-BOP (130) (W) (1/2)	Walsh Ranch (2)	Marys Ridge to Walsh	Widening	100%	\$ 1,774,000	\$ 1,774,000.00
U-26	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Walsh Ranch (3)	Walsh to Walsh Creek	Widening	100%	\$ 968,000	\$ 968,000.00
U-27	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Walsh Ranch (4)	Walsh Creek to Quail Meadow	Median	100%	\$ 916,000	\$ 916,000.00
U-28	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (5)	IH-30 EBFR to IH-20	New	100%	\$ 5,604,000	\$ 5,604,000.00
U-29	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (6)	IH-20 to WR #1	New	100%	\$ 3,025,000	\$ 3,025,000.00
U-30	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (7)	WR #1 to WR #2	New	100%	\$ 4,240,000	\$ 4,240,000.00
U-31	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (8)	WR #2 to WR #3	New	100%	\$ 5,526,000	\$ 5,526,000.00
U-32	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (9)	WR #3 to WR #4	New	100%	\$ 5,055,000	\$ 5,055,000.00
U-33	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Walsh Ranch (10)	WR #4 to 760' S of WR #4	New	100%	\$ 1,137,000	\$ 1,137,000.00
U-34	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (1)	4.830' N of Quail Meadow to Quail Meadow	New	100%	\$ 7,301,000	\$ 7,301,000.00
U-35	NCO-L2-T0-NTMS-P0-BOP (110)	WR #7 (2)	Quail Meadow to IH-30 EBFR	New	100%	\$ 1,669,000	\$ 1,669,000.00
U-36	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (3)	4,680' N of IH-20 to IH-20	New	100%	\$ 7,073,000	\$ 7,073,000.00
U-37	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (4)	IH-20 to WR #1	New	100%	\$ 2,435,000	\$ 2,435,000.00
U-38	NCO-L2-T0-NTMS-P0-BOP (110)	WR #7 (5)	WR #1 to WR #3	New	100%	\$ 3,054,000	\$ 3,054,000.00
U-39	NCO-L2-T0-TWLT-P0-BOP (110)	WR #7 (6)	WR #3 to Aledo Road	New	100%	\$ 2,743,000	\$ 2,743,000.00
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Old Weatherford	Walsh Ranch	Rebuild	100%	\$ 600,000	\$ 600,000
	Roundabout	Quail Meadow	WR #5	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Quail Meadow	WR #7	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	WR #1	WR #5	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	WR #1	WR #6	New	100%	\$ 1,000,000	\$ 1,000,000
	Turn Lane Improvements	WR #1	Walsh Ranch	New	100%	\$ 935,000	\$ 935,000
	Turn Lane Improvements	WR #2	Walsh Ranch	New	100%	\$ 935,000	\$ 935,000
	Roundabout	WR #1	WR #2	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	WR #1	WR #7	New	100%	\$ 1,000,000	\$ 1,000,000
	Turn Lane Improvements	WR #3	Walsh Ranch	New	100%	\$ 850,000	\$ 850,000
	Roundabout	WR #3	WR #7	New	100%	\$ 1,000,000	\$ 1,000,000
	Turn Lane Improvements	WR #4	Walsh Ranch	New	100%	\$ 255,000	\$ 255,000
<b>NOTES:</b> 1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project. 2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.							

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-1
Name:	Old Weatherford (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>		
Limits:	3,500' W of Walsh Ranch to Walsh Ranch			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	3500			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	11,472	cy	\$ 17.00	\$ 195,028
233	6" Lime Stabilization (with Lime @ 32#/sy)	22,556	sy	\$ 4.00	\$ 90,222
333	11" Concrete Pavement	21,778	sy	\$ 55.00	\$ 1,197,778
433	6" Curb and Gutter	7,000	lf	\$ 7.00	\$ 49,000
533	4" Topsoil	13,222	sy	\$ 5.00	\$ 66,111
633	10' Concrete Sidewalk	70,000	sf	\$ 6.00	\$ 420,000
731	Auxiliary Lanes and Median Openings Allotment	597	sf	\$ 59.00	\$ 35,199
Paving Construction Cost Subtotal:					\$ 2,053,338
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	61,600
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	61,600
✓	Pavement Markings/Markers		3%	\$	61,600
✓	Roadway Drainage	Standard Internal System	30%	\$	616,001
✓	Illumination		2%	\$	51,060
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	123,200
✓	Sewer	Minor Adjustments	4%	\$	82,134
✓	Establish Turf / Erosion Control		2%	\$	41,067
✓	Basic Landscaping		4%	\$	82,134
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,180,395
Paving and Allowance Subtotal:					\$ 3,233,733
Construction Contingency:					15% \$ 485,060
Construction Cost TOTAL:					\$ 3,719,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,719,000
Engineering/Survey/Testing:		20%	\$ 743,800
Mobilization		5%	\$ 185,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 371,900
Impact Fee Project Cost TOTAL:			\$ 5,021,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-2
Name:	Old Weatherford (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:	Walsh Ranch to 1,355' E of Walsh Ranch			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1355			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	3,914	cy	\$ 17.00	\$ 66,546
230	6" Lime Stabilization (with Lime @ 32#/sy)	7,528	sy	\$ 4.00	\$ 30,111
330	11" Concrete Pavement	6,926	sy	\$ 55.00	\$ 380,906
430	6" Curb and Gutter	5,420	lf	\$ 7.00	\$ 37,940
530	4" Topsoil	6,624	sy	\$ 5.00	\$ 33,122
630	10' Concrete Sidewalk	27,100	sf	\$ 6.00	\$ 162,600
728	Auxiliary Lanes and Median Openings Allotment	544	sf	\$ 59.00	\$ 32,099
Paving Construction Cost Subtotal:					\$ 743,324
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	22,300
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	22,300
✓	Pavement Markings/Markers		3%	\$	22,300
✓	Roadway Drainage	Standard Internal System	30%	\$	222,997
✓	Illumination		2%	\$	18,484
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	44,599
✓	Sewer	Minor Adjustments	4%	\$	29,733
✓	Establish Turf / Erosion Control		2%	\$	14,866
✓	Basic Landscaping		4%	\$	29,733
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 427,312
Paving and Allowance Subtotal:					\$ 1,170,636
Construction Contingency: 15%					\$ 175,595
Construction Cost TOTAL:					\$ 1,347,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,347,000
Engineering/Survey/Testing:		20%	\$ 269,400
Mobilization		5%	\$ 67,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 134,700
Impact Fee Project Cost TOTAL:			\$ 1,818,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-3
Name:	Quail Meadow (1)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	FM 3325 to WR #5			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	5335			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	16,005	cy	\$ 17.00	\$ 272,085
223	6" Lime Stabilization (with Lime @ 32#/sy)	30,824	sy	\$ 4.00	\$ 123,298
323	11" Concrete Pavement	28,453	sy	\$ 55.00	\$ 1,564,933
423	6" Curb and Gutter	21,340	lf	\$ 7.00	\$ 149,380
523	4" Topsoil	24,897	sy	\$ 5.00	\$ 124,483
623	10' Concrete Sidewalk	106,700	sf	\$ 6.00	\$ 640,200
721	Auxiliary Lanes and Median Openings Allotment	2,142	sf	\$ 59.00	\$ 126,383
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 3,000,762</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	90,023
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	90,023
✓	Roadway Drainage	Standard Internal System	30%	\$	900,229
✓	Illumination		2%	\$	74,619
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	180,046
✓	Sewer	Minor Adjustments	4%	\$	120,030
✓	Establish Turf / Erosion Control		2%	\$	60,015
✓	Basic Landscaping		4%	\$	120,030
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 1,635,015</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 4,635,778</b>
<b>Construction Contingency:</b>					<b>15% \$ 695,367</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 5,332,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 5,332,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 1,066,400
<b>Mobilization</b>		5%	\$ 266,600
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 1,066,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 7,731,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-4
Name:	Quail Meadow (2)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	WR #5 to 240' W of Walsh Ranch			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BLC (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	8530			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
121	Unclassified Street Excavation	30,329	cy	\$ 17.00	\$ 515,591
221	6" Lime Stabilization (with Lime @ 32#/sy)	58,762	sy	\$ 4.00	\$ 235,049
321	11" Concrete Pavement	54,971	sy	\$ 55.00	\$ 3,023,411
421	6" Curb and Gutter	34,120	lf	\$ 7.00	\$ 238,840
521	4" Topsoil	37,911	sy	\$ 5.00	\$ 189,556
621	6' Concrete Sidewalk	102,360	sf	\$ 6.00	\$ 614,160
719	Auxiliary Lanes and Median Openings Allotment	3,425	sf	\$ 59.00	\$ 202,071
Paving Construction Cost Subtotal:					\$ 5,018,677
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	150,560
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	150,560
✓	Roadway Drainage		30%	\$	1,505,603
✓	Illumination		2%	\$	124,798
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	301,121
✓	Sewer	Minor Adjustments	4%	\$	200,747
✓	Establish Turf / Erosion Control		2%	\$	100,374
✓	Basic Landscaping		4%	\$	200,747
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,734,510
Paving and Allowance Subtotal:					\$ 7,753,187
Construction Contingency:					15% \$ 1,162,978
Construction Cost TOTAL:					\$ 8,917,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,917,000
Engineering/Survey/Testing:		20%	\$ 1,783,400
Mobilization		5%	\$ 445,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,783,400
Impact Fee Project Cost TOTAL:			\$ 12,930,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-5
Name:	Quail Meadow (3)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	610' E of Walsh Ranch to WR #7			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BLC (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	5230			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
121	Unclassified Street Excavation	18,596	cy	\$ 17.00	\$ 316,124
221	6" Lime Stabilization (with Lime @ 32#/sy)	36,029	sy	\$ 4.00	\$ 144,116
321	11" Concrete Pavement	33,704	sy	\$ 55.00	\$ 1,853,744
421	6" Curb and Gutter	20,920	lf	\$ 7.00	\$ 146,440
521	4" Topsoil	23,244	sy	\$ 5.00	\$ 116,222
621	6' Concrete Sidewalk	62,760	sf	\$ 6.00	\$ 376,560
719	Auxiliary Lanes and Median Openings Allotment	2,100	sf	\$ 59.00	\$ 123,896
Paving Construction Cost Subtotal:					\$ 3,077,102
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	92,313
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	92,313
✓	Roadway Drainage	Standard Internal System	30%	\$	923,131
✓	Illumination		2%	\$	76,517
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	184,626
✓	Sewer	Minor Adjustments	4%	\$	123,084
✓	Establish Turf / Erosion Control		2%	\$	61,542
✓	Basic Landscaping		4%	\$	123,084
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,676,610
Paving and Allowance Subtotal:					\$ 4,753,713
Construction Contingency: 15%					\$ 713,057
Construction Cost TOTAL:					\$ 5,467,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,467,000
Engineering/Survey/Testing:		20%	\$ 1,093,400
Mobilization		5%	\$ 273,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,093,400
Impact Fee Project Cost TOTAL:			\$ 7,927,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-6
Name:	Quail Meadow (4)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	WR #7 to IH-30			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BLC (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1905			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
121	Unclassified Street Excavation	6,773	cy	\$ 17.00	\$ 115,147
221	6" Lime Stabilization (with Lime @ 32#/sy)	13,123	sy	\$ 4.00	\$ 52,493
321	11" Concrete Pavement	12,277	sy	\$ 55.00	\$ 675,217
421	6" Curb and Gutter	7,620	lf	\$ 7.00	\$ 53,340
521	4" Topsoil	8,467	sy	\$ 5.00	\$ 42,333
621	6' Concrete Sidewalk	22,860	sf	\$ 6.00	\$ 137,160
719	Auxiliary Lanes and Median Openings Allotment	765	sf	\$ 59.00	\$ 45,128
Paving Construction Cost Subtotal:					\$ 1,120,818
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	33,625
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	33,625
✓	Roadway Drainage	Standard Internal System	30%	\$	336,245
✓	Illumination		2%	\$	27,871
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	67,249
✓	Sewer	Minor Adjustments	4%	\$	44,833
✓	Establish Turf / Erosion Control		2%	\$	22,416
✓	Basic Landscaping		4%	\$	44,833
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 610,697
Paving and Allowance Subtotal:					\$ 1,731,515
Construction Contingency: 15%					\$ 259,727
Construction Cost TOTAL:					\$ 1,992,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,992,000
Engineering/Survey/Testing:		20%	\$ 398,400
Mobilization		5%	\$ 99,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 398,400
Impact Fee Project Cost TOTAL:			\$ 2,888,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-7
Name:	WR #1 (1)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>	
Limits:	1,880' W of WR #5 to WR #5		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	1880		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	6,371	cy	\$ 17.00	\$ 108,309
225	6" Lime Stabilization (with Lime @ 32#/sy)	12,533	sy	\$ 4.00	\$ 50,133
325	11" Concrete Pavement	12,116	sy	\$ 55.00	\$ 666,356
425	6" Curb and Gutter	3,760	lf	\$ 7.00	\$ 26,320
525	4" Topsoil	6,684	sy	\$ 5.00	\$ 33,422
625	10' Concrete Sidewalk	37,600	sf	\$ 6.00	\$ 225,600
723	Auxiliary Lanes and Median Openings Allotment	320	sf	\$ 59.00	\$ 18,907
Paving Construction Cost Subtotal:					\$ 1,129,047
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	33,871
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	33,871
✓	Roadway Drainage	Standard Internal System	30%	\$	338,714
✓	Illumination		2%	\$	28,076
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	67,743
✓	Sewer	Minor Adjustments	4%	\$	45,162
✓	Establish Turf / Erosion Control		2%	\$	22,581
✓	Basic Landscaping		4%	\$	45,162
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 615,180
Paving and Allowance Subtotal:					\$ 1,744,227
Construction Contingency: 15%					\$ 261,634
Construction Cost TOTAL:					\$ 2,006,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,006,000
Engineering/Survey/Testing:		20%	\$ 401,200
Mobilization		5%	\$ 100,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 401,200
Impact Fee Project Cost TOTAL:			\$ 2,909,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-8
Name:	WR #1 (2)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>	
Limits:	WR #5 to WR #6		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	2690		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	9,116	cy	\$ 17.00	\$ 154,974
225	6" Lime Stabilization (with Lime @ 32#/sy)	17,933	sy	\$ 4.00	\$ 71,733
325	11" Concrete Pavement	17,336	sy	\$ 55.00	\$ 953,456
425	6" Curb and Gutter	5,380	lf	\$ 7.00	\$ 37,660
525	4" Topsoil	9,564	sy	\$ 5.00	\$ 47,822
625	10' Concrete Sidewalk	53,800	sf	\$ 6.00	\$ 322,800
723	Auxiliary Lanes and Median Openings Allotment	459	sf	\$ 59.00	\$ 27,053
Paving Construction Cost Subtotal:					\$ 1,615,498
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	48,465
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	48,465
✓	Roadway Drainage	Standard Internal System	30%	\$	484,649
✓	Illumination		2%	\$	40,172
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	96,930
✓	Sewer	Minor Adjustments	4%	\$	64,620
✓	Establish Turf / Erosion Control		2%	\$	32,310
✓	Basic Landscaping		4%	\$	64,620
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 880,231
Paving and Allowance Subtotal:					\$ 2,495,729
Construction Contingency: 15%					\$ 374,359
Construction Cost TOTAL:					\$ 2,871,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,871,000
Engineering/Survey/Testing:		20%	\$ 574,200
Mobilization		5%	\$ 143,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 574,200
Impact Fee Project Cost TOTAL:			\$ 4,163,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-9
Name:	WR #1 (3)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>	
Limits:	WR #6 to Walsh Ranch		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	7455		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	25,264	cy	\$ 17.00	\$ 429,491
225	6" Lime Stabilization (with Lime @ 32#/sy)	49,700	sy	\$ 4.00	\$ 198,800
325	11" Concrete Pavement	48,043	sy	\$ 55.00	\$ 2,642,383
425	6" Curb and Gutter	14,910	lf	\$ 7.00	\$ 104,370
525	4" Topsoil	26,507	sy	\$ 5.00	\$ 132,533
625	10' Concrete Sidewalk	149,100	sf	\$ 6.00	\$ 894,600
723	Auxiliary Lanes and Median Openings Allotment	1,271	sf	\$ 59.00	\$ 74,974
Paving Construction Cost Subtotal:					\$ 4,477,151
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	134,315
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	134,315
✓	Roadway Drainage	Standard Internal System	30%	\$	1,343,145
✓	Illumination		2%	\$	111,332
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	268,629
✓	Sewer	Minor Adjustments	4%	\$	179,086
✓	Establish Turf / Erosion Control		2%	\$	89,543
✓	Basic Landscaping		4%	\$	179,086
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,439,450
Paving and Allowance Subtotal:					\$ 6,916,601
Construction Contingency: 15%					\$ 1,037,490
Construction Cost TOTAL:					\$ 7,955,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,955,000
Engineering/Survey/Testing:		20%	\$ 1,591,000
Mobilization		5%	\$ 397,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,591,000
Impact Fee Project Cost TOTAL:			\$ 11,535,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>U-10</b>
<b>Name:</b>	WR #1 (4)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>	
<b>Limits:</b>	Walsh Ranch to WR #7		
<b>Impact Fee Class:</b>	CCO-L2-T0-NTMS-P0-BOP (110)		
<b>Ultimate Class:</b>	4 Lane Divided Commercial Connector		
<b>Length (lf):</b>	8805		
<b>Service Area(s):</b>	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	26,415	cy	\$ 17.00	\$ 449,055
223	6" Lime Stabilization (with Lime @ 32#/sy)	50,873	sy	\$ 4.00	\$ 203,493
323	11" Concrete Pavement	46,960	sy	\$ 55.00	\$ 2,582,800
423	6" Curb and Gutter	35,220	lf	\$ 7.00	\$ 246,540
523	4" Topsoil	41,090	sy	\$ 5.00	\$ 205,450
623	10' Concrete Sidewalk	176,100	sf	\$ 6.00	\$ 1,056,600
721	Auxiliary Lanes and Median Openings Allotment	3,535	sf	\$ 59.00	\$ 208,585
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 4,952,523</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	148,576
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	148,576
✓	Roadway Drainage	Standard Internal System	30%	\$	1,485,757
✓	Illumination		2%	\$	123,153
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	297,151
✓	Sewer	Minor Adjustments	4%	\$	198,101
✓	Establish Turf / Erosion Control		2%	\$	99,050
✓	Basic Landscaping		4%	\$	198,101
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 2,698,465</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 7,650,988</b>
<b>Construction Contingency:</b>					<b>15% \$ 1,147,648</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 8,799,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 8,799,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 1,759,800
<b>Mobilization</b>		5%	\$ 439,950
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 1,759,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 12,759,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>U-11</b>
Name:	WR #1 (5)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>	
Limits:	WR #7 to 2745' E of WR #7		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	2745		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	8,235	cy	\$ 17.00	\$ 139,995
223	6" Lime Stabilization (with Lime @ 32#/sy)	15,860	sy	\$ 4.00	\$ 63,440
323	11" Concrete Pavement	14,640	sy	\$ 55.00	\$ 805,200
423	6" Curb and Gutter	10,980	lf	\$ 7.00	\$ 76,860
523	4" Topsoil	12,810	sy	\$ 5.00	\$ 64,050
623	10' Concrete Sidewalk	54,900	sf	\$ 6.00	\$ 329,400
721	Auxiliary Lanes and Median Openings Allotment	1,102	sf	\$ 59.00	\$ 65,027
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,543,972</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	46,319
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	46,319
✓	Roadway Drainage	Standard Internal System	30%	\$	463,192
✓	Illumination		2%	\$	38,393
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	92,638
✓	Sewer	Minor Adjustments	4%	\$	61,759
✓	Establish Turf / Erosion Control		2%	\$	30,879
✓	Basic Landscaping		4%	\$	61,759
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 841,259</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 2,385,231</b>
<b>Construction Contingency:</b>					<b>15% \$ 357,785</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 2,744,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 2,744,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 548,800
<b>Mobilization</b>		5%	\$ 137,200
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 548,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,979,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-12
Name:	WR #2 (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	3,645' W of Walsh Ranch to Walsh Ranch		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	3645		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,530	cy	\$ 17.00	\$ 179,010
230	6" Lime Stabilization (with Lime @ 32#/sy)	20,250	sy	\$ 4.00	\$ 81,000
330	11" Concrete Pavement	18,630	sy	\$ 55.00	\$ 1,024,650
430	6" Curb and Gutter	14,580	lf	\$ 7.00	\$ 102,060
530	4" Topsoil	17,820	sy	\$ 5.00	\$ 89,100
630	10' Concrete Sidewalk	72,900	sf	\$ 6.00	\$ 437,400
728	Auxiliary Lanes and Median Openings Allotment	1,464	sf	\$ 59.00	\$ 86,348
Paving Construction Cost Subtotal:					\$ 1,999,568
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	59,987
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	59,987
✓	Roadway Drainage		30%	\$	599,870
✓	Illumination		2%	\$	49,723
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	119,974
✓	Sewer	Minor Adjustments	4%	\$	79,983
✓	Establish Turf / Erosion Control		2%	\$	39,991
✓	Basic Landscaping		4%	\$	79,983
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,089,498
Paving and Allowance Subtotal:					\$ 3,089,066
Construction Contingency: 15%					\$ 463,360
Construction Cost TOTAL:					\$ 3,553,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,553,000
Engineering/Survey/Testing:		20%	\$ 710,600
Mobilization		5%	\$ 177,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 710,600
Impact Fee Project Cost TOTAL:			\$ 5,152,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>U-13</b>
Name:	WR #2 (2)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	Walsh Ranch to WR #1		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	3025		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	9,915	cy	\$ 17.00	\$ 168,560
233	6" Lime Stabilization (with Lime @ 32#/sy)	19,494	sy	\$ 4.00	\$ 77,978
333	11" Concrete Pavement	18,822	sy	\$ 55.00	\$ 1,035,222
433	6" Curb and Gutter	6,050	lf	\$ 7.00	\$ 42,350
533	4" Topsoil	11,428	sy	\$ 5.00	\$ 57,139
633	10' Concrete Sidewalk	60,500	sf	\$ 6.00	\$ 363,000
731	Auxiliary Lanes and Median Openings Allotment	516	sf	\$ 59.00	\$ 30,422
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,774,670</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	53,240
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	53,240
✓	Roadway Drainage	Standard Internal System	30%	\$	532,401
✓	Illumination		2%	\$	44,130
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	106,480
✓	Sewer	Minor Adjustments	4%	\$	70,987
✓	Establish Turf / Erosion Control		2%	\$	35,493
✓	Basic Landscaping		4%	\$	70,987
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 966,959</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 2,741,629</b>
<b>Construction Contingency:</b>					<b>15% \$ 411,244</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 3,153,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 3,153,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 630,600
<b>Mobilization</b>		5%	\$ 157,650
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 630,600
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 4,572,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>U-14</b>
Name:	WR #3 (1)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	2,685' W of Walsh Ranch to Walsh Ranch		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	2685		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	8,801	cy	\$ 17.00	\$ 149,614
233	6" Lime Stabilization (with Lime @ 32#/sy)	17,303	sy	\$ 4.00	\$ 69,213
333	11" Concrete Pavement	16,707	sy	\$ 55.00	\$ 918,867
433	6" Curb and Gutter	5,370	lf	\$ 7.00	\$ 37,590
533	4" Topsoil	10,143	sy	\$ 5.00	\$ 50,717
633	10' Concrete Sidewalk	53,700	sf	\$ 6.00	\$ 322,200
731	Auxiliary Lanes and Median Openings Allotment	458	sf	\$ 59.00	\$ 27,003
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,575,203</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	47,256
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	47,256
✓	Roadway Drainage	Standard Internal System	30%	\$	472,561
✓	Illumination		2%	\$	39,170
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	94,512
✓	Sewer	Minor Adjustments	4%	\$	63,008
✓	Establish Turf / Erosion Control		2%	\$	31,504
✓	Basic Landscaping		4%	\$	63,008
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 858,276</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 2,433,479</b>
<b>Construction Contingency:</b>					<b>15% \$ 365,022</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 2,799,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 2,799,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 559,800
<b>Mobilization</b>		5%	\$ 139,950
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 559,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 4,059,000</b>

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**City of Fort Worth**  
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**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>U-15</b>
Name:	WR #3 (2)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	Walsh Ranch to WR #7		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	7355		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	24,108	cy	\$ 17.00	\$ 409,837
233	6" Lime Stabilization (with Lime @ 32#/sy)	47,399	sy	\$ 4.00	\$ 189,596
333	11" Concrete Pavement	45,764	sy	\$ 55.00	\$ 2,517,044
433	6" Curb and Gutter	14,710	lf	\$ 7.00	\$ 102,970
533	4" Topsoil	27,786	sy	\$ 5.00	\$ 138,928
633	10' Concrete Sidewalk	147,100	sf	\$ 6.00	\$ 882,600
731	Auxiliary Lanes and Median Openings Allotment	1,254	sf	\$ 59.00	\$ 73,968
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 4,314,943</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	129,448
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	129,448
✓	Roadway Drainage		30%	\$	1,294,483
✓	Illumination		2%	\$	107,298
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	258,897
✓	Sewer	Minor Adjustments	4%	\$	172,598
✓	Establish Turf / Erosion Control		2%	\$	86,299
✓	Basic Landscaping		4%	\$	172,598
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 2,351,068</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 6,666,011</b>
<b>Construction Contingency:</b>					<b>15% \$ 999,902</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 7,666,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 7,666,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 1,533,200
<b>Mobilization</b>		5%	\$ 383,300
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 1,533,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 11,116,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>U-16</b>
<b>Name:</b>	WR #3 (3)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
<b>Limits:</b>	WR #7 to 3,590' E of WR #7		
<b>Impact Fee Class:</b>	NCO-L2-T0-TWLT-P0-BOP (110)		
<b>Ultimate Class:</b>	5 Lane Undivided Neighborhood Connector		
<b>Length (lf):</b>	3590		
<b>Service Area(s):</b>	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	11,767	cy	\$ 17.00	\$ 200,043
233	6" Lime Stabilization (with Lime @ 32#/sy)	23,136	sy	\$ 4.00	\$ 92,542
333	11" Concrete Pavement	22,338	sy	\$ 55.00	\$ 1,228,578
433	6" Curb and Gutter	7,180	lf	\$ 7.00	\$ 50,260
533	4" Topsoil	13,562	sy	\$ 5.00	\$ 67,811
633	10' Concrete Sidewalk	71,800	sf	\$ 6.00	\$ 430,800
731	Auxiliary Lanes and Median Openings Allotment	612	sf	\$ 59.00	\$ 36,104
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 2,106,138</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	63,184
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	63,184
✓	Roadway Drainage		30%	\$	631,841
✓	Illumination		2%	\$	52,373
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	126,368
✓	Sewer	Minor Adjustments	4%	\$	84,246
✓	Establish Turf / Erosion Control		2%	\$	42,123
✓	Basic Landscaping		4%	\$	84,246
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 1,147,564</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 3,253,702</b>
<b>Construction Contingency:</b>					<b>15% \$ 488,055</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 3,742,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 3,742,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 748,400
<b>Mobilization</b>		5%	\$ 187,100
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 748,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 5,426,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>U-17</b>
<b>Name:</b>	Aledo Rd	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
<b>Limits:</b>	WR #3 to 515' E of WR #3		
<b>Impact Fee Class:</b>	NCO-L2-T0-TWLT-P0-BOP (110)		
<b>Ultimate Class:</b>	5 Lane Undivided Neighborhood Connector		
<b>Length (lf):</b>	515		
<b>Service Area(s):</b>	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	1,688	cy	\$ 17.00	\$ 28,697
233	6" Lime Stabilization (with Lime @ 32#/sy)	3,319	sy	\$ 4.00	\$ 13,276
333	11" Concrete Pavement	3,204	sy	\$ 55.00	\$ 176,244
433	6" Curb and Gutter	1,030	lf	\$ 7.00	\$ 7,210
533	4" Topsoil	1,946	sy	\$ 5.00	\$ 9,728
633	10' Concrete Sidewalk	10,300	sf	\$ 6.00	\$ 61,800
731	Auxiliary Lanes and Median Openings Allotment	88	sf	\$ 59.00	\$ 5,179
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 302,134</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	9,064
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	9,064
✓	Pavement Markings/Markers		3%	\$	9,064
✓	Roadway Drainage	Standard Internal System	30%	\$	90,640
✓	Illumination		2%	\$	7,513
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	18,128
✓	Sewer	Minor Adjustments	4%	\$	12,085
✓	Establish Turf / Erosion Control		2%	\$	6,043
✓	Basic Landscaping		4%	\$	12,085
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 173,687</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 475,821</b>
<b>Construction Contingency:</b>					<b>15% \$ 71,373</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 548,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ <b>548,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 109,600
<b>Mobilization</b>		5%	\$ 27,400
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 54,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 740,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
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Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>U-18</b>
<b>Name:</b>	WR #4	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>	
<b>Limits:</b>	1,295' W of Walsh Ranch to Walsh Ranch		
<b>Impact Fee Class:</b>	NCO-L1-T0-TWLT-P0-BOP (80)		
<b>Ultimate Class:</b>	3 Lane Undivided Neighborhood Connector		
<b>Length (lf):</b>	1295		
<b>Service Area(s):</b>	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	2,662	cy	\$ 17.00	\$ 45,253
241	6" Lime Stabilization (with Lime @ 32#/sy)	5,180	sy	\$ 4.00	\$ 20,720
341	11" Concrete Pavement	4,892	sy	\$ 55.00	\$ 269,072
441	6" Curb and Gutter	2,590	lf	\$ 7.00	\$ 18,130
541	4" Topsoil	3,741	sy	\$ 5.00	\$ 18,706
641	10' Concrete Sidewalk	25,900	sf	\$ 6.00	\$ 155,400
739	Auxiliary Lanes and Median Openings Allotment	221	sf	\$ 59.00	\$ 13,024
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 540,304</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,209
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	16,209
✓	Roadway Drainage	Standard Internal System	30%	\$	162,091
✓	Illumination		2%	\$	13,436
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	32,418
✓	Sewer	Minor Adjustments	4%	\$	21,612
✓	Establish Turf / Erosion Control		2%	\$	10,806
✓	Basic Landscaping		4%	\$	21,612
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 294,394</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 834,698</b>
<b>Construction Contingency:</b>					<b>15% \$ 125,205</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 960,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ <b>960,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 192,000
<b>Mobilization</b>		5%	\$ 48,000
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 192,000
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,392,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-19
Name:	WR #5 (1)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	Old Weatherford to 1,960' S of Old Weatherford			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	1960			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	5,880	cy	\$ 17.00	\$ 99,960
223	6" Lime Stabilization (with Lime @ 32#/sy)	11,324	sy	\$ 4.00	\$ 45,298
323	11" Concrete Pavement	10,453	sy	\$ 55.00	\$ 574,933
423	6" Curb and Gutter	7,840	lf	\$ 7.00	\$ 54,880
523	4" Topsoil	9,147	sy	\$ 5.00	\$ 45,733
623	10' Concrete Sidewalk	39,200	sf	\$ 6.00	\$ 235,200
721	Auxiliary Lanes and Median Openings Allotment	787	sf	\$ 59.00	\$ 46,431
Paving Construction Cost Subtotal:					\$ 1,102,436
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	33,073
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	33,073
✓	Roadway Drainage	Standard Internal System	30%	\$	330,731
✓	Illumination		2%	\$	27,414
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	66,146
✓	Sewer	Minor Adjustments	4%	\$	44,097
✓	Establish Turf / Erosion Control		2%	\$	22,049
✓	Basic Landscaping		4%	\$	44,097
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 600,680
Paving and Allowance Subtotal:					\$ 1,703,116
Construction Contingency: 15%					\$ 255,467
Construction Cost TOTAL:					\$ 1,959,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,959,000
Engineering/Survey/Testing:		20%	\$ 391,800
Mobilization		5%	\$ 97,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 391,800
Impact Fee Project Cost TOTAL:			\$ 2,841,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-20
Name:	WR #5 (2)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	1,960' S of Old Weatherford to Quail Meadow			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	3375			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	10,125	cy	\$ 17.00	\$ 172,125
223	6" Lime Stabilization (with Lime @ 32#/sy)	19,500	sy	\$ 4.00	\$ 78,000
323	11" Concrete Pavement	18,000	sy	\$ 55.00	\$ 990,000
423	6" Curb and Gutter	13,500	lf	\$ 7.00	\$ 94,500
523	4" Topsoil	15,750	sy	\$ 5.00	\$ 78,750
623	10' Concrete Sidewalk	67,500	sf	\$ 6.00	\$ 405,000
721	Auxiliary Lanes and Median Openings Allotment	1,355	sf	\$ 59.00	\$ 79,952
Paving Construction Cost Subtotal:					\$ 1,898,327
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	56,950
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	56,950
✓	Roadway Drainage		30%	\$	569,498
✓	Illumination		2%	\$	47,205
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	113,900
✓	Sewer	Minor Adjustments	4%	\$	75,933
✓	Establish Turf / Erosion Control		2%	\$	37,967
✓	Basic Landscaping		4%	\$	75,933
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,034,335
Paving and Allowance Subtotal:					\$ 2,932,662
Construction Contingency:					15% \$ 439,899
Construction Cost TOTAL:					\$ 3,373,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,373,000
Engineering/Survey/Testing:		20%	\$ 674,600
Mobilization		5%	\$ 168,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 674,600
Impact Fee Project Cost TOTAL:			\$ 4,891,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-21
Name:	WR #5 (3)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>	
Limits:	Quail Meadow to IH-20		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	1310		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	4,439	cy	\$ 17.00	\$ 75,471
225	6" Lime Stabilization (with Lime @ 32#/sy)	8,733	sy	\$ 4.00	\$ 34,933
325	11" Concrete Pavement	8,442	sy	\$ 55.00	\$ 464,322
425	6" Curb and Gutter	2,620	lf	\$ 7.00	\$ 18,340
525	4" Topsoil	4,658	sy	\$ 5.00	\$ 23,289
625	10' Concrete Sidewalk	26,200	sf	\$ 6.00	\$ 157,200
723	Auxiliary Lanes and Median Openings Allotment	223	sf	\$ 59.00	\$ 13,174
Paving Construction Cost Subtotal:					\$ 786,729
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	23,602
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	23,602
✓	Roadway Drainage	Standard Internal System	30%	\$	236,019
✓	Illumination		2%	\$	19,563
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	47,204
✓	Sewer	Minor Adjustments	4%	\$	31,469
✓	Establish Turf / Erosion Control		2%	\$	15,735
✓	Basic Landscaping		4%	\$	31,469
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 428,663
Paving and Allowance Subtotal:					\$ 1,215,392
Construction Contingency: 15%					\$ 182,309
Construction Cost TOTAL:					\$ 1,398,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,398,000
Engineering/Survey/Testing:		20%	\$ 279,600
Mobilization		5%	\$ 69,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 279,600
Impact Fee Project Cost TOTAL:			\$ 2,027,000

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**City of Fort Worth**  
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Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-22
Name:	WR #5 (4)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>	
Limits:	IH-20 to WR #1		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	3210		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	10,878	cy	\$ 17.00	\$ 184,932
225	6" Lime Stabilization (with Lime @ 32#/sy)	21,400	sy	\$ 4.00	\$ 85,600
325	11" Concrete Pavement	20,687	sy	\$ 55.00	\$ 1,137,767
425	6" Curb and Gutter	6,420	lf	\$ 7.00	\$ 44,940
525	4" Topsoil	11,413	sy	\$ 5.00	\$ 57,067
625	10' Concrete Sidewalk	64,200	sf	\$ 6.00	\$ 385,200
723	Auxiliary Lanes and Median Openings Allotment	547	sf	\$ 59.00	\$ 32,282
Paving Construction Cost Subtotal:					\$ 1,927,787
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	57,834
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	57,834
✓	Roadway Drainage		30%	\$	578,336
✓	Illumination		2%	\$	47,938
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	115,667
✓	Sewer	Minor Adjustments	4%	\$	77,111
✓	Establish Turf / Erosion Control		2%	\$	38,556
✓	Basic Landscaping		4%	\$	77,111
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,050,387
Paving and Allowance Subtotal:					\$ 2,978,174
Construction Contingency: 15%					\$ 446,726
Construction Cost TOTAL:					\$ 3,425,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,425,000
Engineering/Survey/Testing:		20%	\$ 685,000
Mobilization		5%	\$ 171,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 685,000
Impact Fee Project Cost TOTAL:			\$ 4,966,000

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Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-23
Name:	WR #6	<b>This project consists of the construction of a new three-lane undivided commercial connector.</b>	
Limits:	IH-20 to WR #1		
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Commercial Connector		
Length (lf):	1580		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	3,423	cy	\$ 17.00	\$ 58,197
239	6" Lime Stabilization (with Lime @ 32#/sy)	6,671	sy	\$ 4.00	\$ 26,684
339	11" Concrete Pavement	6,320	sy	\$ 55.00	\$ 347,600
439	6" Curb and Gutter	3,160	lf	\$ 7.00	\$ 22,120
539	4" Topsoil	4,213	sy	\$ 5.00	\$ 21,067
639	10' Concrete Sidewalk	31,600	sf	\$ 6.00	\$ 189,600
737	Auxiliary Lanes and Median Openings Allotment	269	sf	\$ 59.00	\$ 15,890
Paving Construction Cost Subtotal:					\$ 681,158
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	20,435
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	20,435
✓	Roadway Drainage	Standard Internal System	30%	\$	204,347
✓	Illumination		2%	\$	16,938
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	40,869
✓	Sewer	Minor Adjustments	4%	\$	27,246
✓	Establish Turf / Erosion Control		2%	\$	13,623
✓	Basic Landscaping		4%	\$	27,246
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 371,140
Paving and Allowance Subtotal:					\$ 1,052,298
Construction Contingency: 15%					\$ 157,845
Construction Cost TOTAL:					\$ 1,211,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,211,000
Engineering/Survey/Testing:		20%	\$ 242,200
Mobilization		5%	\$ 60,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 242,200
Impact Fee Project Cost TOTAL:			\$ 1,756,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>U-24</b>
<b>Name:</b>	Walsh Ranch (1)	<b>This project consists of the construction of a new six-lane divided neighborhood connector.</b>	
<b>Limits:</b>	Old Weatherford to Marys Ridge		
<b>Impact Fee Class:</b>	NCO-L3-T0-NTMS-P0-BOP (130) (W)		
<b>Ultimate Class:</b>	6 Lane Divided Neighborhood Connector		
<b>Length (lf):</b>	690		
<b>Service Area(s):</b>	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	2,837	cy	\$ 17.00	\$ 48,223
213	6" Lime Stabilization (with Lime @ 32#/sy)	3,833	sy	\$ 4.00	\$ 15,333
313	11" Concrete Pavement	3,527	sy	\$ 55.00	\$ 193,967
413	6" Curb and Gutter	2,760	lf	\$ 7.00	\$ 19,320
513	4" Topsoil	4,907	sy	\$ 5.00	\$ 24,533
613	10' Concrete Sidewalk	13,800	sf	\$ 6.00	\$ 82,800
711	Auxiliary Lanes and Median Openings Allotment	277	sf	\$ 59.00	\$ 16,346
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 400,522</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	12,016
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	12,016
✓	Roadway Drainage		30%	\$	120,157
✓	Illumination		2%	\$	9,960
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	24,031
✓	Sewer	Minor Adjustments	4%	\$	16,021
✓	Establish Turf / Erosion Control		2%	\$	8,010
✓	Basic Landscaping		4%	\$	16,021
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>					<b>\$ 218,231</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 618,754</b>
<b>Construction Contingency:</b>					<b>15% \$ 92,813</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 712,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ <b>712,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 142,400
<b>Mobilization</b>		5%	\$ 35,600
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 142,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,032,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Walsh Ranch (2)	<b>This project consists of the construction of the eastern lanes to complete a four-lane divided neighborhood with a wide median.</b>	<b>U-25</b>
Limits:	Marys Ridge to Walsh		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W) (1/2)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	2400		
Service Area(s):	U		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
114	Unclassified Street Excavation	4,933	cy	\$ 17.00	\$ 83,867
214	6" Lime Stabilization (with Lime @ 32#/sy)	6,667	sy	\$ 4.00	\$ 26,667
314	11" Concrete Pavement	6,133	sy	\$ 55.00	\$ 337,333
414	6" Curb and Gutter	4,800	lf	\$ 7.00	\$ 33,600
514	4" Topsoil	8,533	sy	\$ 5.00	\$ 42,667
614	10' Concrete Sidewalk	24,000	sf	\$ 6.00	\$ 144,000
712	Auxiliary Lanes and Median Openings Allotment	964	sf	\$ 59.00	\$ 56,855

**Paving Construction Cost Subtotal: \$ 724,988**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 21,750
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 21,750
✓ Pavement Markings/Markers		3%	\$ 21,750
✓ Roadway Drainage	Standard Internal System	30%	\$ 217,496
✓ Illumination		2%	\$ 18,028
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 43,499
✓ Sewer	Minor Adjustments	4%	\$ 29,000
✓ Establish Turf / Erosion Control		2%	\$ 14,500
✓ Basic Landscaping		4%	\$ 29,000
Other:		\$0	\$ -

**Allowance Subtotal: \$ 416,771**

**Paving and Allowance Subtotal: \$ 1,141,759**

**Construction Contingency: 15% \$ 171,264**

**Construction Cost TOTAL: \$ 1,314,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,314,000
Engineering/Survey/Testing:		20%	\$ 262,800
Mobilization		5%	\$ 65,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 131,400

**Impact Fee Project Cost TOTAL: \$ 1,774,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-26
Name:	Walsh Ranch (3)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	Walsh to Walsh Creek		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	1880		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	2,716	cy	\$ 17.00	\$ 46,164
212	6" Lime Stabilization (with Lime @ 32#/sy)	5,222	sy	\$ 4.00	\$ 20,889
312	11" Concrete Pavement	4,804	sy	\$ 55.00	\$ 264,244
412	6" Curb and Gutter	3,760	lf	\$ 7.00	\$ 26,320
512	4" Topsoil	0	sy	\$ 5.00	\$ -
612	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
710	Auxiliary Lanes and Median Openings Allotment	641	sf	\$ 59.00	\$ 37,814
Paving Construction Cost Subtotal:					\$ 395,431
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	11,863
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	11,863
✓	Pavement Markings/Markers		3%	\$	11,863
✓	Roadway Drainage	Standard Internal System	30%	\$	118,629
✓	Illumination		2%	\$	9,833
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	23,726
✓	Sewer	Minor Adjustments	4%	\$	15,817
✓	Establish Turf / Erosion Control		2%	\$	7,909
✓	Basic Landscaping		4%	\$	15,817
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 227,320
Paving and Allowance Subtotal:					\$ 622,752
Construction Contingency:					15% \$ 93,413
Construction Cost TOTAL:					\$ 717,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 717,000
Engineering/Survey/Testing:		20%	\$ 143,400
Mobilization		5%	\$ 35,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 71,700
Impact Fee Project Cost TOTAL:			\$ 968,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-27
Name:	Walsh Ranch (4)	<b>This project consists of the construction of the median lanes to complete the six-lane divided neighborhood connector.</b>	
Limits:	Walsh Creek to Quail Meadow		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	2635		
Service Area(s):	U		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
112	Unclassified Street Excavation	3,806	cy	\$ 17.00	\$ 64,704
212	6" Lime Stabilization (with Lime @ 32#/sy)	7,319	sy	\$ 4.00	\$ 29,278
312	11" Concrete Pavement	6,734	sy	\$ 55.00	\$ 370,364
412	6" Curb and Gutter	5,270	lf	\$ 7.00	\$ 36,890
512	4" Topsoil	0	sy	\$ 5.00	\$ -
612	10' Concrete Sidewalk	0	sf	\$ 6.00	\$ -
710	Auxiliary Lanes and Median Openings Allotment	898	sf	\$ 59.00	\$ 52,999
Paving Construction Cost Subtotal:					\$ 554,235

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 16,627
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 16,627
✓ Pavement Markings/Markers		3%	\$ 16,627
Roadway Drainage	None Anticipated	0%	\$ -
Illumination	None Anticipated	0%	\$ -
Special Drainage Structures	None Anticipated	\$ -	\$ -
Water	None Anticipated	0%	\$ -
Sewer	None Anticipated	0%	\$ -
✓ Establish Turf / Erosion Control		2%	\$ 11,085
✓ Basic Landscaping		4%	\$ 22,169
Other:		\$0	\$ -
Allowance Subtotal:			\$ 83,135
Paving and Allowance Subtotal:			\$ 637,370
Construction Contingency:			15% \$ 95,606
Construction Cost TOTAL:			\$ 733,000

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 733,000
Engineering/Survey/Testing:		20%	\$ 146,600
Mobilization		5%	\$ 36,650
Previous City contribution			\$ -
Other			\$ -
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
Impact Fee Project Cost TOTAL:			\$ 916,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-28
Name:	Walsh Ranch (5)	<b>This project consists of the construction of a new four-lane divided commercial connector with a wide median.</b>	
Limits:	IH-30 EBFR to IH-20		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (W)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	3660		
Service Area(s):	U		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	15,453	cy	\$ 17.00	\$ 262,707
206	6" Lime Stabilization (with Lime @ 32#/sy)	21,147	sy	\$ 4.00	\$ 84,587
306	11" Concrete Pavement	19,520	sy	\$ 55.00	\$ 1,073,600
406	6" Curb and Gutter	14,640	lf	\$ 7.00	\$ 102,480
506	4" Topsoil	25,213	sy	\$ 5.00	\$ 126,067
606	10' Concrete Sidewalk	73,200	sf	\$ 6.00	\$ 439,200
704	Auxiliary Lanes and Median Openings Allotment	1,470	sf	\$ 59.00	\$ 86,703
Paving Construction Cost Subtotal:					\$ 2,175,343

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 65,260
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 65,260
✓ Roadway Drainage	Standard Internal System	30%	\$ 652,603
✓ Illumination		2%	\$ 54,094
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 130,521
✓ Sewer	Minor Adjustments	4%	\$ 87,014
✓ Establish Turf / Erosion Control		2%	\$ 43,507
✓ Basic Landscaping		4%	\$ 87,014
Other:		\$0	\$ -
Allowance Subtotal:			\$ 1,185,272
Paving and Allowance Subtotal:			\$ 3,360,615
Construction Contingency:			15% \$ 504,092
Construction Cost TOTAL:			\$ 3,865,000

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,865,000
Engineering/Survey/Testing:		20%	\$ 773,000
Mobilization		5%	\$ 193,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 773,000
Impact Fee Project Cost TOTAL:			\$ 5,604,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-29
Name:	Walsh Ranch (6)	<b>This project consists of the construction of a new four-lane divided commercial connector with a wide median.</b>	
Limits:	IH-20 to WR #1		
Impact Fee Class:	CCO-L3-T0-NTMS-P0-BOP (130) (W)		
Ultimate Class:	6 Lane Divided Commercial Connector		
Length (lf):	1975		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
106	Unclassified Street Excavation	8,339	cy	\$ 17.00	\$ 141,761
206	6" Lime Stabilization (with Lime @ 32#/sy)	11,411	sy	\$ 4.00	\$ 45,644
306	11" Concrete Pavement	10,533	sy	\$ 55.00	\$ 579,333
406	6" Curb and Gutter	7,900	lf	\$ 7.00	\$ 55,300
506	4" Topsoil	13,606	sy	\$ 5.00	\$ 68,028
606	10' Concrete Sidewalk	39,500	sf	\$ 6.00	\$ 237,000
704	Auxiliary Lanes and Median Openings Allotment	793	sf	\$ 59.00	\$ 46,787
Paving Construction Cost Subtotal:					\$ 1,173,853
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	35,216
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	35,216
✓	Roadway Drainage		30%	\$	352,156
✓	Illumination		2%	\$	29,190
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	70,431
✓	Sewer	Minor Adjustments	4%	\$	46,954
✓	Establish Turf / Erosion Control		2%	\$	23,477
✓	Basic Landscaping		4%	\$	46,954
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 639,593
Paving and Allowance Subtotal:					\$ 1,813,447
Construction Contingency:					15% \$ 272,017
Construction Cost TOTAL:					\$ 2,086,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,086,000
Engineering/Survey/Testing:		20%	\$ 417,200
Mobilization		5%	\$ 104,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 417,200
Impact Fee Project Cost TOTAL:			\$ 3,025,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-30
Name:	Walsh Ranch (7)	<b>This project consists of the construction of a new four-lane divided neighborhood connector with a wide median.</b>	
Limits:	WR #1 to WR #2		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	2835		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	11,655	cy	\$ 17.00	\$ 198,135
213	6" Lime Stabilization (with Lime @ 32#/sy)	15,750	sy	\$ 4.00	\$ 63,000
313	11" Concrete Pavement	14,490	sy	\$ 55.00	\$ 796,950
413	6" Curb and Gutter	11,340	lf	\$ 7.00	\$ 79,380
513	4" Topsoil	20,160	sy	\$ 5.00	\$ 100,800
613	10' Concrete Sidewalk	56,700	sf	\$ 6.00	\$ 340,200
711	Auxiliary Lanes and Median Openings Allotment	1,138	sf	\$ 59.00	\$ 67,159
Paving Construction Cost Subtotal:					\$ 1,645,624
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	49,369
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	49,369
✓	Roadway Drainage	Standard Internal System	30%	\$	493,687
✓	Illumination		2%	\$	40,921
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	98,737
✓	Sewer	Minor Adjustments	4%	\$	65,825
✓	Establish Turf / Erosion Control		2%	\$	32,912
✓	Basic Landscaping		4%	\$	65,825
	Other:		\$0	\$	-
Allowance Subtotal:				\$	896,646
Paving and Allowance Subtotal:				\$	2,542,270
Construction Contingency:				15%	\$ 381,341
Construction Cost TOTAL:				\$	2,924,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,924,000
Engineering/Survey/Testing:		20%	\$ 584,800
Mobilization		5%	\$ 146,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 584,800
Impact Fee Project Cost TOTAL:			\$ 4,240,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-31
Name:	Walsh Ranch (8)	<b>This project consists of the construction of a new four-lane divided neighborhood connector with a wide median.</b>	
Limits:	WR #2 to WR #3		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	3695		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	15,191	cy	\$ 17.00	\$ 258,239
213	6" Lime Stabilization (with Lime @ 32#/sy)	20,528	sy	\$ 4.00	\$ 82,111
313	11" Concrete Pavement	18,886	sy	\$ 55.00	\$ 1,038,706
413	6" Curb and Gutter	14,780	lf	\$ 7.00	\$ 103,460
513	4" Topsoil	26,276	sy	\$ 5.00	\$ 131,378
613	10' Concrete Sidewalk	73,900	sf	\$ 6.00	\$ 443,400
711	Auxiliary Lanes and Median Openings Allotment	1,484	sf	\$ 59.00	\$ 87,532
Paving Construction Cost Subtotal:					\$ 2,144,826
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	64,345
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	64,345
✓	Roadway Drainage		30%	\$	643,448
✓	Illumination		2%	\$	53,335
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	128,690
✓	Sewer	Minor Adjustments	4%	\$	85,793
✓	Establish Turf / Erosion Control		2%	\$	42,897
✓	Basic Landscaping		4%	\$	85,793
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,168,644
Paving and Allowance Subtotal:					\$ 3,313,471
Construction Contingency:					15% \$ 497,021
Construction Cost TOTAL:					\$ 3,811,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,811,000
Engineering/Survey/Testing:		20%	\$ 762,200
Mobilization		5%	\$ 190,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 762,200
Impact Fee Project Cost TOTAL:			\$ 5,526,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-32
Name:	Walsh Ranch (9)	<b>This project consists of the construction of a new four-lane divided neighborhood connector with a wide median.</b>		
Limits:	WR #3 to WR #4			
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	3380			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	13,896	cy	\$ 17.00	\$ 236,224
213	6" Lime Stabilization (with Lime @ 32#/sy)	18,778	sy	\$ 4.00	\$ 75,111
313	11" Concrete Pavement	17,276	sy	\$ 55.00	\$ 950,156
413	6" Curb and Gutter	13,520	lf	\$ 7.00	\$ 94,640
513	4" Topsoil	24,036	sy	\$ 5.00	\$ 120,178
613	10' Concrete Sidewalk	67,600	sf	\$ 6.00	\$ 405,600
711	Auxiliary Lanes and Median Openings Allotment	1,357	sf	\$ 59.00	\$ 80,070
Paving Construction Cost Subtotal:					\$ 1,961,979
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	58,859
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	58,859
✓	Roadway Drainage		30%	\$	588,594
✓	Illumination		2%	\$	48,788
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	117,719
✓	Sewer	Minor Adjustments	4%	\$	78,479
✓	Establish Turf / Erosion Control		2%	\$	39,240
✓	Basic Landscaping		4%	\$	78,479
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,069,017
Paving and Allowance Subtotal:					\$ 3,030,996
Construction Contingency:					15% \$ 454,649
Construction Cost TOTAL:					\$ 3,486,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,486,000
Engineering/Survey/Testing:		20%	\$ 697,200
Mobilization		5%	\$ 174,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 697,200
Impact Fee Project Cost TOTAL:			\$ 5,055,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-33
Name:	Walsh Ranch (10)	<b>This project consists of the construction of a new four-lane divided neighborhood connector with a wide median.</b>	
Limits:	WR #4 to 760' S of WR #4		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130) (W)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	760		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
113	Unclassified Street Excavation	3,124	cy	\$ 17.00	\$ 53,116
213	6" Lime Stabilization (with Lime @ 32#/sy)	4,222	sy	\$ 4.00	\$ 16,889
313	11" Concrete Pavement	3,884	sy	\$ 55.00	\$ 213,644
413	6" Curb and Gutter	3,040	lf	\$ 7.00	\$ 21,280
513	4" Topsoil	5,404	sy	\$ 5.00	\$ 27,022
613	10' Concrete Sidewalk	15,200	sf	\$ 6.00	\$ 91,200
711	Auxiliary Lanes and Median Openings Allotment	305	sf	\$ 59.00	\$ 18,004
Paving Construction Cost Subtotal:					\$ 441,155
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW	None Anticipated		3%	\$ 13,235
	Traffic Control			0%	\$ -
✓	Pavement Markings/Markers	Standard Internal System		3%	\$ 13,235
✓	Roadway Drainage			30%	\$ 132,347
✓	Illumination			2%	\$ 10,970
	Special Drainage Structures	None Anticipated		\$ -	\$ -
✓	Water	Minor Adjustments		6%	\$ 26,469
✓	Sewer	Minor Adjustments		4%	\$ 17,646
✓	Establish Turf / Erosion Control			2%	\$ 8,823
✓	Basic Landscaping			4%	\$ 17,646
	Other:			\$0	\$ -
Allowance Subtotal:					\$ 240,371
Paving and Allowance Subtotal:					\$ 681,526
Construction Contingency:					15% \$ 102,229
Construction Cost TOTAL:					\$ 784,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 784,000
Engineering/Survey/Testing:		20%	\$ 156,800
Mobilization		5%	\$ 39,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 156,800
Impact Fee Project Cost TOTAL:			\$ 1,137,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	U-34
Name:	WR #7 (1)	This project consists of the construction of a new five-lane undivided neighborhood connector.		
Limits:	4.830' N of Quail Meadow to Quail Meadow			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	4830			
Service Area(s):	U			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	15,832	cy	\$ 17.00	\$ 269,138
233	6" Lime Stabilization (with Lime @ 32#/sy)	31,127	sy	\$ 4.00	\$ 124,507
333	11" Concrete Pavement	30,053	sy	\$ 55.00	\$ 1,652,933
433	6" Curb and Gutter	9,660	lf	\$ 7.00	\$ 67,620
533	4" Topsoil	18,247	sy	\$ 5.00	\$ 91,233
633	10' Concrete Sidewalk	96,600	sf	\$ 6.00	\$ 579,600
731	Auxiliary Lanes and Median Openings Allotment	823	sf	\$ 59.00	\$ 48,574
Paving Construction Cost Subtotal:					\$ 2,833,606
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	85,008
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	85,008
✓	Roadway Drainage	Standard Internal System	30%	\$	850,082
✓	Illumination		2%	\$	70,462
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	170,016
✓	Sewer	Minor Adjustments	4%	\$	113,344
✓	Establish Turf / Erosion Control		2%	\$	56,672
✓	Basic Landscaping		4%	\$	113,344
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,543,938
Paving and Allowance Subtotal:					\$ 4,377,544
Construction Contingency: 15%					\$ 656,632
Construction Cost TOTAL:					\$ 5,035,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,035,000
Engineering/Survey/Testing:		20%	\$ 1,007,000
Mobilization		5%	\$ 251,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,007,000
Impact Fee Project Cost TOTAL:			\$ 7,301,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-35
Name:	WR #7 (2)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	Quail Meadow to IH-30 EBFR		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1180		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	3,409	cy	\$ 17.00	\$ 57,951
230	6" Lime Stabilization (with Lime @ 32#/sy)	6,556	sy	\$ 4.00	\$ 26,222
330	11" Concrete Pavement	6,031	sy	\$ 55.00	\$ 331,711
430	6" Curb and Gutter	4,720	lf	\$ 7.00	\$ 33,040
530	4" Topsoil	5,769	sy	\$ 5.00	\$ 28,844
630	10' Concrete Sidewalk	23,600	sf	\$ 6.00	\$ 141,600
728	Auxiliary Lanes and Median Openings Allotment	474	sf	\$ 59.00	\$ 27,953
Paving Construction Cost Subtotal:					\$ 647,322
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	19,420
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	19,420
✓	Roadway Drainage	Standard Internal System	30%	\$	194,197
✓	Illumination		2%	\$	16,097
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	38,839
✓	Sewer	Minor Adjustments	4%	\$	25,893
✓	Establish Turf / Erosion Control		2%	\$	12,946
✓	Basic Landscaping		4%	\$	25,893
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 352,704
Paving and Allowance Subtotal:					\$ 1,000,027
Construction Contingency: 15%					\$ 150,004
Construction Cost TOTAL:					\$ 1,151,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,151,000
Engineering/Survey/Testing:		20%	\$ 230,200
Mobilization		5%	\$ 57,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 230,200
Impact Fee Project Cost TOTAL:			\$ 1,669,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-36
Name:	WR #7 (3)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	4,680' N of IH-20 to IH-20		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	4680		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	15,340	cy	\$ 17.00	\$ 260,780
233	6" Lime Stabilization (with Lime @ 32#/sy)	30,160	sy	\$ 4.00	\$ 120,640
333	11" Concrete Pavement	29,120	sy	\$ 55.00	\$ 1,601,600
433	6" Curb and Gutter	9,360	lf	\$ 7.00	\$ 65,520
533	4" Topsoil	17,680	sy	\$ 5.00	\$ 88,400
633	10' Concrete Sidewalk	93,600	sf	\$ 6.00	\$ 561,600
731	Auxiliary Lanes and Median Openings Allotment	798	sf	\$ 59.00	\$ 47,066
Paving Construction Cost Subtotal:					\$ 2,745,606
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	82,368
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	82,368
✓	Roadway Drainage		30%	\$	823,682
✓	Illumination		2%	\$	68,274
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	164,736
✓	Sewer	Minor Adjustments	4%	\$	109,824
✓	Establish Turf / Erosion Control		2%	\$	54,912
✓	Basic Landscaping		4%	\$	109,824
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,495,989
Paving and Allowance Subtotal:					\$ 4,241,595
Construction Contingency: 15%					\$ 636,239
Construction Cost TOTAL:					\$ 4,878,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,878,000
Engineering/Survey/Testing:		20%	\$ 975,600
Mobilization		5%	\$ 243,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 975,600
Impact Fee Project Cost TOTAL:			\$ 7,073,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.  
 updated: 9/29/2017

Project Information:		Description:	Project No. U-37
Name:	WR #7 (4)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	IH-20 to WR #1		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	1610		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	5,277	cy	\$ 17.00	\$ 89,713
233	6" Lime Stabilization (with Lime @ 32#/sy)	10,376	sy	\$ 4.00	\$ 41,502
333	11" Concrete Pavement	10,018	sy	\$ 55.00	\$ 550,978
433	6" Curb and Gutter	3,220	lf	\$ 7.00	\$ 22,540
533	4" Topsoil	6,082	sy	\$ 5.00	\$ 30,411
633	10' Concrete Sidewalk	32,200	sf	\$ 6.00	\$ 193,200
731	Auxiliary Lanes and Median Openings Allotment	274	sf	\$ 59.00	\$ 16,191
Paving Construction Cost Subtotal:					\$ 944,535
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	28,336
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	28,336
✓	Roadway Drainage		30%	\$	283,361
✓	Illumination		2%	\$	23,487
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	56,672
✓	Sewer	Minor Adjustments	4%	\$	37,781
✓	Establish Turf / Erosion Control		2%	\$	18,891
✓	Basic Landscaping		4%	\$	37,781
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 514,646
Paving and Allowance Subtotal:					\$ 1,459,181
Construction Contingency: 15%					\$ 218,877
Construction Cost TOTAL:					\$ 1,679,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,679,000
Engineering/Survey/Testing:		20%	\$ 335,800
Mobilization		5%	\$ 83,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 335,800
Impact Fee Project Cost TOTAL:			\$ 2,435,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-38
Name:	WR #7 (5)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	WR #1 to WR #3		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2160		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	6,240	cy	\$ 17.00	\$ 106,080
230	6" Lime Stabilization (with Lime @ 32#/sy)	12,000	sy	\$ 4.00	\$ 48,000
330	11" Concrete Pavement	11,040	sy	\$ 55.00	\$ 607,200
430	6" Curb and Gutter	8,640	lf	\$ 7.00	\$ 60,480
530	4" Topsoil	10,560	sy	\$ 5.00	\$ 52,800
630	10' Concrete Sidewalk	43,200	sf	\$ 6.00	\$ 259,200
728	Auxiliary Lanes and Median Openings Allotment	867	sf	\$ 59.00	\$ 51,169
Paving Construction Cost Subtotal:					\$ 1,184,929
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	35,548
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	35,548
✓	Roadway Drainage	Standard Internal System	30%	\$	355,479
✓	Illumination		2%	\$	29,465
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	71,096
✓	Sewer	Minor Adjustments	4%	\$	47,397
✓	Establish Turf / Erosion Control		2%	\$	23,699
✓	Basic Landscaping		4%	\$	47,397
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 645,628
Paving and Allowance Subtotal:					\$ 1,830,557
Construction Contingency: 15%					\$ 274,584
Construction Cost TOTAL:					\$ 2,106,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,106,000
Engineering/Survey/Testing:		20%	\$ 421,200
Mobilization		5%	\$ 105,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 421,200
Impact Fee Project Cost TOTAL:			\$ 3,054,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. U-39
Name:	WR #7 (6)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	WR #3 to Aledo Road		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	1815		
Service Area(s):	U		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	5,949	cy	\$ 17.00	\$ 101,136
233	6" Lime Stabilization (with Lime @ 32#/sy)	11,697	sy	\$ 4.00	\$ 46,787
333	11" Concrete Pavement	11,293	sy	\$ 55.00	\$ 621,133
433	6" Curb and Gutter	3,630	lf	\$ 7.00	\$ 25,410
533	4" Topsoil	6,857	sy	\$ 5.00	\$ 34,283
633	10' Concrete Sidewalk	36,300	sf	\$ 6.00	\$ 217,800
731	Auxiliary Lanes and Median Openings Allotment	309	sf	\$ 59.00	\$ 18,253
Paving Construction Cost Subtotal:					\$ 1,064,802
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	31,944
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	31,944
✓	Roadway Drainage	Standard Internal System	30%	\$	319,441
✓	Illumination		2%	\$	26,478
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	63,888
✓	Sewer	Minor Adjustments	4%	\$	42,592
✓	Establish Turf / Erosion Control		2%	\$	21,296
✓	Basic Landscaping		4%	\$	42,592
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 580,175
Paving and Allowance Subtotal:					\$ 1,644,978
Construction Contingency: 15%					\$ 246,747
Construction Cost TOTAL:					\$ 1,892,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,892,000
Engineering/Survey/Testing:		20%	\$ 378,400
Mobilization		5%	\$ 94,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 378,400
Impact Fee Project Cost TOTAL:			\$ 2,743,000

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The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**Appendix A – Service Area V**



City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area V

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
V-1	NCO-L2-T0-NTMS-P0-BOP (110)	Dean Ranch (1)	140' E of Markum Ranch to 2,460' E of Markum Ranch	New	100%	\$ 3,280,000	\$ 3,280,000
V-2	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Dean Ranch (2)	2,445' W of FM 2871 to FM 2871	Widening	100%	\$ 1,712,000	\$ 1,712,000
V-3	NCO-L2-T0-NTMS-P0-BOP (110)	Bear Creek (1)	Walsh Ranch Major #2 to Markum Ranch	New	100%	\$ 4,904,000	\$ 4,904,000
V-4	NCO-L2-T0-NTMS-P0-BOP (110)	Bear Creek (2)	Markum Ranch to US 377	New	100%	\$ 3,110,000	\$ 3,110,000
V-5	NCO-L2-T0-TWLT-P0-BOP (110)	Markum Ranch (1)	705' S of Dean Ranch to 4,090' S of Dean Ranch	New	50%	\$ 5,117,000	\$ 2,558,500
V-6	NCO-L2-T0-TWLT-P0-BOP (110)	Markum Ranch (2)	4,090' S of Dean Ranch to Bear Creek	New	100%	\$ 8,388,000	\$ 8,388,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Dean Ranch	FM 2871	Rebuild	100%	\$ 400,000	\$ 400,000
	Roundabout	Bear Creek	Markum Ranch	New	100%	\$ 1,000,000	\$ 1,000,000

**NOTES:**  
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2. Intersection Improvements were identified based on Impact Fee project status, Master Thoroughfare Plan classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	V-1
Name:	Dean Ranch (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	140' E of Markum Ranch to 2,460' E of Markum Ranch			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,320			
Service Area(s):	V			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	6,702	cy	\$ 17.00	\$ 113,938
230	6" Lime Stabilization (with Lime @ 32#/sy)	12,889	sy	\$ 4.00	\$ 51,556
330	11" Concrete Pavement	11,858	sy	\$ 55.00	\$ 652,178
430	6" Curb and Gutter	9,280	lf	\$ 7.00	\$ 64,960
530	4" Topsoil	11,342	sy	\$ 5.00	\$ 56,711
630	10' Concrete Sidewalk	46,400	sf	\$ 6.00	\$ 278,400
728	Auxiliary Lanes and Median Openings Allotment	932	sf	\$ 59.00	\$ 54,959

**Paving Construction Cost Subtotal: \$ 1,272,702**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW	None Anticipated	3%	\$ 38,181
Traffic Control		0%	\$ -
✓ Pavement Markings/Markers	Standard Internal System	3%	\$ 38,181
✓ Roadway Drainage		30%	\$ 381,810
✓ Illumination		2%	\$ 31,648
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 76,362
✓ Sewer	Minor Adjustments	4%	\$ 50,908
✓ Establish Turf / Erosion Control		2%	\$ 25,454
✓ Basic Landscaping		4%	\$ 50,908
Other:		\$0	\$ -

**Allowance Subtotal: \$ 693,453**

**Paving and Allowance Subtotal: \$ 1,966,154**

**Construction Contingency: 15% \$ 294,923**

**Construction Cost TOTAL: \$ 2,262,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,262,000
Engineering/Survey/Testing:		20%	\$ 452,400
Mobilization		5%	\$ 113,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 452,400

**Impact Fee Project Cost TOTAL: \$ 3,280,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	V-2
Name:	Dean Ranch (2)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided neighborhood connector.</b>		
Limits:	2,445' W of FM 2871 to FM 2871			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,445			
Service Area(s):	V			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	3,532	cy	\$ 17.00	\$ 60,038
231	6" Lime Stabilization (with Lime @ 32#/sy)	6,792	sy	\$ 4.00	\$ 27,167
331	11" Concrete Pavement	6,248	sy	\$ 55.00	\$ 343,658
431	6" Curb and Gutter	4,890	lf	\$ 7.00	\$ 34,230
531	4" Topsoil	5,977	sy	\$ 5.00	\$ 29,883
631	10' Concrete Sidewalk	24,450	sf	\$ 6.00	\$ 146,700
729	Auxiliary Lanes and Median Openings Allotment	982	sf	\$ 59.00	\$ 57,921
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 699,597</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	20,988
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	20,988
✓	Pavement Markings/Markers		3%	\$	20,988
✓	Roadway Drainage	Standard Internal System	30%	\$	209,879
✓	Illumination		2%	\$	17,397
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	41,976
✓	Sewer	Minor Adjustments	4%	\$	27,984
✓	Establish Turf / Erosion Control		2%	\$	13,992
✓	Basic Landscaping		4%	\$	27,984
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>				<b>\$</b>	<b>402,175</b>
<b>Paving and Allowance Subtotal:</b>				<b>\$</b>	<b>1,101,772</b>
<b>Construction Contingency:</b>				<b>15%</b>	<b>\$ 165,266</b>
<b>Construction Cost TOTAL:</b>				<b>\$</b>	<b>1,268,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,268,000
Engineering/Survey/Testing:		20%	\$ 253,600
Mobilization		5%	\$ 63,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 126,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,712,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	V-3
Name:	Bear Creek (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	Walsh Ranch Major #2 to Markum Ranch			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,470			
Service Area(s):	V			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,024	cy	\$ 17.00	\$ 170,416
230	6" Lime Stabilization (with Lime @ 32#/sy)	19,278	sy	\$ 4.00	\$ 77,111
330	11" Concrete Pavement	17,736	sy	\$ 55.00	\$ 975,456
430	6" Curb and Gutter	13,880	lf	\$ 7.00	\$ 97,160
530	4" Topsoil	16,964	sy	\$ 5.00	\$ 84,822
630	10' Concrete Sidewalk	69,400	sf	\$ 6.00	\$ 416,400
728	Auxiliary Lanes and Median Openings Allotment	1,393	sf	\$ 59.00	\$ 82,202
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,903,567</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	57,107
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	57,107
✓	Roadway Drainage	Standard Internal System	30%	\$	571,070
✓	Illumination		2%	\$	47,335
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	114,214
✓	Sewer	Minor Adjustments	4%	\$	76,143
✓	Establish Turf / Erosion Control		2%	\$	38,071
✓	Basic Landscaping		4%	\$	76,143
	Other:		\$0	\$	-
<b>Allowance Subtotal:</b>				<b>\$</b>	<b>1,037,190</b>
<b>Paving and Allowance Subtotal:</b>				<b>\$</b>	<b>2,940,757</b>
<b>Construction Contingency:</b>				<b>15%</b>	<b>\$ 441,113</b>
<b>Construction Cost TOTAL:</b>				<b>\$</b>	<b>3,382,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,382,000
Engineering/Survey/Testing:		20%	\$ 676,400
Mobilization		5%	\$ 169,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 676,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 4,904,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	V-4
Name:	Bear Creek (2)	<b>This project consists of the construction of a new four lane divided neighborhood connector.</b>		
Limits:	Markum Ranch to US 377			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,200			
Service Area(s):	V			

Roadway Construction Cost Projection				
No.	Item Description	Quantity	Unit	Item Cost
130	Unclassified Street Excavation	6,356	cy	\$ 17.00 \$ 108,044
230	6" Lime Stabilization (with Lime @ 32#/sy)	12,222	sy	\$ 4.00 \$ 48,889
330	11" Concrete Pavement	11,244	sy	\$ 55.00 \$ 618,444
430	6" Curb and Gutter	8,800	lf	\$ 7.00 \$ 61,600
530	4" Topsoil	10,756	sy	\$ 5.00 \$ 53,778
630	10' Concrete Sidewalk	44,000	sf	\$ 6.00 \$ 264,000
728	Auxiliary Lanes and Median Openings Allotment	883	sf	\$ 59.00 \$ 52,117
Paving Construction Cost Subtotal:				\$ 1,206,872
Major Construction Component Allowances:				
Item Description	Notes	Allowance	Item Cost	
✓ Prep ROW	None Anticipated	3%	\$	36,206
Traffic Control		0%	\$	-
✓ Pavement Markings/Markers	Standard Internal System	3%	\$	36,206
✓ Roadway Drainage		30%	\$	362,062
✓ Illumination		2%	\$	30,011
Special Drainage Structures	None Anticipated	\$ -	\$	-
✓ Water	Minor Adjustments	6%	\$	72,412
✓ Sewer	Minor Adjustments	4%	\$	48,275
✓ Establish Turf / Erosion Control		2%	\$	24,137
✓ Basic Landscaping		4%	\$	48,275
Other:		\$0	\$	-
Allowance Subtotal:				\$ 657,584
Paving and Allowance Subtotal:				\$ 1,864,457
Construction Contingency:				15% \$ 279,669
Construction Cost TOTAL:				\$ 2,145,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,145,000
Engineering/Survey/Testing:		20%	\$ 429,000
Mobilization		5%	\$ 107,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 429,000
Impact Fee Project Cost TOTAL:			\$ 3,110,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	V-5
Name:	Markum Ranch (1)	<b>This project consists for the construction of a new five-lane undivided neighborhood connector.</b>		
Limits:	705' S of Dean Ranch to 4,090' S of Dean Ranch			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	3,385			
Service Area(s):	V			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	11,095	cy	\$ 17.00	\$ 188,620
233	6" Lime Stabilization (with Lime @ 32#/sy)	21,814	sy	\$ 4.00	\$ 87,258
333	11" Concrete Pavement	21,062	sy	\$ 55.00	\$ 1,158,422
433	6" Curb and Gutter	6,770	lf	\$ 7.00	\$ 47,390
533	4" Topsoil	12,788	sy	\$ 5.00	\$ 63,939
633	10' Concrete Sidewalk	67,700	sf	\$ 6.00	\$ 406,200
731	Auxiliary Lanes and Median Openings Allotment	577	sf	\$ 59.00	\$ 34,042

**Paving Construction Cost Subtotal: \$ 1,985,871**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 59,576
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 59,576
✓ Roadway Drainage	Standard Internal System	30%	\$ 595,761
✓ Illumination		2%	\$ 49,382
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 119,152
✓ Sewer	Minor Adjustments	4%	\$ 79,435
✓ Establish Turf / Erosion Control		2%	\$ 39,717
✓ Basic Landscaping		4%	\$ 79,435
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,082,035**

**Paving and Allowance Subtotal: \$ 3,067,906**

**Construction Contingency: 15% \$ 460,186**

**Construction Cost TOTAL: \$ 3,529,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,529,000
Engineering/Survey/Testing:		20%	\$ 705,800
Mobilization		5%	\$ 176,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 705,800

**Impact Fee Project Cost TOTAL: \$ 5,117,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	V-6
Name:	Markum Ranch (2)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>		
Limits:	4,090' S of Dean Ranch to Bear Creek			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	5,550			
Service Area(s):	V			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	18,192	cy	\$ 17.00	\$ 309,258
233	6" Lime Stabilization (with Lime @ 32#/sy)	35,767	sy	\$ 4.00	\$ 143,067
333	11" Concrete Pavement	34,533	sy	\$ 55.00	\$ 1,899,333
433	6" Curb and Gutter	11,100	lf	\$ 7.00	\$ 77,700
533	4" Topsoil	20,967	sy	\$ 5.00	\$ 104,833
633	10' Concrete Sidewalk	111,000	sf	\$ 6.00	\$ 666,000
731	Auxiliary Lanes and Median Openings Allotment	946	sf	\$ 59.00	\$ 55,815

**Paving Construction Cost Subtotal: \$ 3,256,007**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 97,680
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 97,680
✓ Roadway Drainage	Standard Internal System	30%	\$ 976,802
✓ Illumination		2%	\$ 80,966
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 195,360
✓ Sewer	Minor Adjustments	4%	\$ 130,240
✓ Establish Turf / Erosion Control		2%	\$ 65,120
✓ Basic Landscaping		4%	\$ 130,240
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,774,090**

**Paving and Allowance Subtotal: \$ 5,030,097**

**Construction Contingency: 15% \$ 754,515**

**Construction Cost TOTAL: \$ 5,785,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,785,000
Engineering/Survey/Testing:		20%	\$ 1,157,000
Mobilization		5%	\$ 289,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,157,000

**Impact Fee Project Cost TOTAL: \$ 8,388,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**Appendix A - Service Area W**

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

**Roadway/Intersection Improvements - Service Area W**

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
W-1	NCO-L1-T0-TWLT-P0-BOP (80)	Lakeside/Altamesa	145' W of Pecan Valley to Bryant Irvin	Widening	100%	\$ 7,457,000	\$ 7,457,000
W-2, Y-1	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (1)	Bryant Irvin to Harris	Previous	50%	\$ 7,673,507	\$ 3,836,753
W-3, Y-2	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (2)	Harris to Chisholm Trail SBFR	Previous	50%	\$ 2,285,725	\$ 1,142,863
W-4, Y-3	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (3)	Chisholm Trail SBFR to Granbury	Previous	50%	\$ 6,367,378	\$ 3,183,689
W-5, Y-23	NCO-L2-T0-NTMS-P0-BOP (110)	Bryant Irvin (1)	Altamesa to 2,280' S of Altamesa	New	50%	\$ 3,223,000	\$ 1,611,500
W-6	NCO (E) (4U)	Harris	Dutch Branch to Altamesa	Previous	100%	\$ 1,256,097	\$ 1,256,097
<b>Intersection Improvements</b>	<b>Type</b>	<b>Road A</b>	<b>Road B</b>	<b>Status</b>	<b>Percent in SA</b>	<b>Total Cost</b>	<b>Cost in Service Area</b>
	Turn Lane Improvements	Altamesa	Bryant Irvin	Rebuild	75%	\$ 300,000	\$ 225,000
	Turn Lane Improvements	Altamesa	Granbury	Retrofit	50%	\$ 525,000	\$ 262,500
	Turn Lane Improvements	Altamesa	Hulen	Retrofit	50%	\$ 230,000	\$ 115,000
	Turn Lane Improvements	Altamesa	McCart	Retrofit	50%	\$ 295,000	\$ 147,500
	Roundabout	Arborlawn	International	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Arborlawn	Hulen	Retrofit	100%	\$ 230,000	\$ 230,000
	Roundabout	Bellaire	Arborlawn	Retrofit	75%	\$ 2,500,000	\$ 1,875,000
	Turn Lane Improvements	Bellaire	Hulen	Retrofit	50%	\$ 525,000	\$ 262,500
	Roundabout	Dutch Branch	Harris	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Dutch Branch	Bryant Irvin	Retrofit	100%	\$ 180,000	\$ 180,000
	Turn Lane Improvements	Hulen	Granbury	Retrofit	100%	\$ 180,000	\$ 180,000
	Turn Lane Improvements	Oakmont	Hulen	Retrofit	100%	\$ 295,000	\$ 295,000
	Turn Lane Improvements	Oakmont	Oakmont Trail	Retrofit	100%	\$ 230,000	\$ 230,000
	Turn Lane Improvements	Oakmont	Harris	Retrofit	100%	\$ 295,000	\$ 295,000
	Turn Lane Improvements	Oakmont	Bryant Irvin	Retrofit	100%	\$ 525,000	\$ 525,000
	Turn Lane Improvements	Overton	Hulen	Retrofit	100%	\$ 360,000	\$ 360,000
	Turn Lane Improvements	Overton Ridge	Bryant Irvin	Retrofit	100%	\$ 295,000	\$ 295,000

**NOTES:**

1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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2. Intersection Improvements were identified based on impact fee project status, MTP classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	W-1
Name:	Lakeside/Altamesa	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:	145' W of Pecan Valley to Bryant Irvin			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	7,310			
Service Area(s):	W			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	15,026	cy	\$ 17.00	\$ 255,444
241	6" Lime Stabilization (with Lime @ 32#/sy)	29,240	sy	\$ 4.00	\$ 116,960
341	11" Concrete Pavement	27,616	sy	\$ 55.00	\$ 1,518,856
441	6" Curb and Gutter	14,620	lf	\$ 7.00	\$ 102,340
541	4" Topsoil	21,118	sy	\$ 5.00	\$ 105,589
641	10' Concrete Sidewalk	146,200	sf	\$ 6.00	\$ 877,200
739	Auxiliary Lanes and Median Openings Allotment	1,246	sf	\$ 59.00	\$ 73,515
Paving Construction Cost Subtotal:					\$ 3,049,904
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	91,497
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	91,497
✓	Pavement Markings/Markers		3%	\$	91,497
✓	Roadway Drainage	Standard Internal System	30%	\$	914,971
✓	Illumination		2%	\$	75,841
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	182,994
✓	Sewer	Minor Adjustments	4%	\$	121,996
✓	Establish Turf / Erosion Control		2%	\$	60,998
✓	Basic Landscaping		4%	\$	121,996
	Other:				
Allowance Subtotal:					\$ 1,753,288
Paving and Allowance Subtotal:					\$ 4,803,192
Construction Contingency: 15%					\$ 720,479
Construction Cost TOTAL:					\$ 5,524,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,524,000
Engineering/Survey/Testing:		20%	\$ 1,104,800
Mobilization		5%	\$ 276,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 552,400
Impact Fee Project Cost TOTAL:			\$ 7,457,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	W-2, Y-1
Name:	Altamesa (1) Bryant Irvin to Harris	<b>This project consisted of the reconstruction of the existing asphalt facility as a six-lane divided neighborhood connector. The City contributed \$16,326,610 overall to this project. This segment accounts for 47% (\$7,673,507) of the overall project.</b>		
Limits:				
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	2,735			
Service Area(s):	Y, W			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 5,798,823
Engineering/Survey/Testing:			\$ 1,396,837
Previous City contribution	Transportation Impact Fees Legacy Fund		\$ (1,574,500)
ROW/Easement Acquisition:			\$ 2,052,346
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 7,673,507</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted contruction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	W-3, Y-2
Name:	Altamesa (2) Harris to Chisholm Trail	<b>This project consisted of the reconstruction of the existing asphalt facility as a six-lane divided neighborhood connector. The City contributed \$16,326,610 overall to this project. This segment accounts for 14% (\$2,285,725) of the overall project.</b>		
Limits:				
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	825			
Service Area(s):	Y, W			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 1,727,309
Engineering/Survey/Testing:			\$ 416,079
Previous City contribution	Transportation Impact Fees Legacy Fund		\$ (469,000)
ROW/Easement Acquisition:			\$ 611,337
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,285,725</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*  
 updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Altamesa (3) Chisholm Trail to Granbury	<b>This project consisted of the reconstruction of the existing asphalt facility as a six-lane divided neighborhood connector. The City contributed \$16,326,610 overall to this project. This segment accounts for 39% (\$6,367,378) of the overall project.</b>	<b>W-4, Y-3</b>
Limits:			
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	2,265		
Service Area(s):	Y, W		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 4,811,789
Engineering/Survey/Testing:			\$ 1,159,078
Previous City contribution	Transportation Impact Fees Legacy Fund		\$ (1,306,500)
ROW/Easement Acquisition:			\$ 1,703,011
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 6,367,378</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. W-5, Y-23
Name:	Bryant Irvin (1) Altamesa to 2,280' S of Altamesa	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,280		
Service Area(s):	Y, W		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	6,587	cy	\$ 17.00	\$ 111,973
230	6" Lime Stabilization (with Lime @ 32#/sy)	12,667	sy	\$ 4.00	\$ 50,667
330	11" Concrete Pavement	11,653	sy	\$ 55.00	\$ 640,933
430	6" Curb and Gutter	9,120	lf	\$ 7.00	\$ 63,840
530	4" Topsoil	11,147	sy	\$ 5.00	\$ 55,733
630	10' Concrete Sidewalk	45,600	sf	\$ 6.00	\$ 273,600
728	Auxiliary Lanes and Median Openings Allotment	915	sf	\$ 59.00	\$ 54,012
Paving Construction Cost Subtotal:					\$ 1,250,758
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	37,523
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	37,523
✓	Roadway Drainage	Standard Internal System	30%	\$	375,228
✓	Illumination		2%	\$	31,102
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	75,046
✓	Sewer	Minor Adjustments	4%	\$	50,030
✓	Establish Turf / Erosion Control		2%	\$	25,015
✓	Basic Landscaping		4%	\$	50,030
	Other:				
Allowance Subtotal:					\$ 681,497
Paving and Allowance Subtotal:					\$ 1,932,255
Construction Contingency: 15%					\$ 289,838
Construction Cost TOTAL:					\$ 2,223,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,223,000
Engineering/Survey/Testing:		20%	\$ 444,600
Mobilization		5%	\$ 111,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 444,600
Impact Fee Project Cost TOTAL:			\$ 3,223,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	W-6
Name:	Harris	<b>This project consisted of the reconstruction of the existing asphalt facility as a four lane undivided neighborhood connector. The City contributed \$1,256,097 overall to this project.</b>		
Limits:	Dutch Branch to Altamesa			
Impact Fee Class:	NCO (E) (4U)			
Ultimate Class:	Established Commercial Connector			
Length (lf):	2,575			
Service Area(s):	W			

Impact Fee Project Cost Summary	
	<b>Impact Fee Project Cost TOTAL: \$ 1,256,097</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

## Appendix A – Service Area X

City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area X

Project No.	IF Class	Street Name	Limits	To	Status	Percent in SA	Total Cost	Cost in Service Area
X-1	CCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (3)	Oak Grove to Wichita	Wichita	New	100%	\$8,394,000	\$ 8,394,000
X-2	NCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (4)	Lana to 600' E of Lana	600' E of Lana	New	100%	\$645,000	\$ 645,000
X-3	NCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (5)	600' E of Lana to 650' W of Forest Hill	650' W of Forest Hill	New	50%	\$1,940,000	\$ 970,000
X-4	NCO-L1-T0-TWLT-P0-BOP (80)	Altamesa (6)	650' W of Forest Hill to Forest Hill	Forest Hill	New	100%	\$699,000	\$ 699,000
X-5	CCO-L1-T0-TWLT-P0-BOP (80)	Joel East	Oak Grove to Wichita	Wichita	Widening	100%	\$6,120,000	\$ 6,120,000
X-6	NCO-L1-T0-TWLT-P0-BOP (80)	Everman Kennedale (1)	Anglin to 190' E of Anglin	190' E of Anglin	Widening	100%	\$763,000	\$ 763,000
X-7	NCO-L1-T0-TWLT-P0-BOP (80)	Everman Kennedale (2)	2,670' E of Anglin to 3,645' E of Anglin	3,645' E of Anglin	Widening	100%	\$1,952,000	\$ 1,952,000
X-8	NCO-L1-T0-TWLT-P0-BOP (80)	Everman Kennedale (3)	3,645' E of Anglin to 5,350' W of Anglin	5,350' W of Anglin	Widening	100%	\$1,740,000	\$ 1,740,000
X-9	NCO-L1-T0-TWLT-P0-BOP (80)	Enon	2,635' W of Anglin to Anglin	Anglin	Widening	100%	\$2,689,000	\$ 2,689,000
X-10, Z-1	NCO-L2-T0-NTMS-P0-BOP (110)	Everman (1)	Butterwick to Cameron Hill	Cameron Hill	New	50%	\$5,459,000	\$ 2,729,500
X-11, Z-2	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Everman (2)	Cameron Hill to 110' E of Sheridan	110' E of Sheridan	Widening	50%	\$934,000	\$ 467,000
X-12	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Hemphill (1)	Sunderland to Sycamore School	Sycamore School	Widening	100%	\$2,904,000	\$ 2,904,000
X-13	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Hemphill (2)	360' S of Sycamore School to 815' N of Everman	815' N of Everman	Widening	100%	\$1,530,000	\$ 1,530,000
X-14	NCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (3)	815' N of Everman to Everman	Everman	New	100%	\$1,153,000	\$ 1,153,000
X-15	NCO-L2-T0-NTMS-P0-BOP (110)	Oak Grove (1)	Englad to Campus	Campus	Widening	100%	\$2,456,000	\$ 2,456,000
X-16	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Oak Grove (2)	470' S of Alta Mesa to Railroad	Railroad	Widening	100%	\$714,000	\$ 714,000
X-17	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Oak Grove (3)	Railroad to Joel East	Joel East	Widening	100%	\$1,613,000	\$ 1,613,000
X-18	CCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (4)	Joel East to Everman	Everman	Widening	100%	\$9,937,000	\$ 9,937,000
X-19	CCO-L2-T0-NTMS-P0-BOP (110)	Wichita (1)	345' N of Altamesa to Joel East	Joel East	Widening	100%	\$1,431,000	\$ 1,431,000
X-20	CCO-L2-T0-NTMS-P0-BOP (110)	Wichita (2)	Joel East to 960' S of Joel East	960' S of Joel East	Widening	100%	\$1,320,000	\$ 1,320,000
X-21	NCO-L2-T0-NTMS-P0-BOP (110)	Forest Hill	Lon Stephenson to 905' S of Hanna Ranch	905' S of Hanna Ranch	Widening	100%	\$5,084,000	\$ 5,084,000
X-22	NCO-L1-T0-TWLT-P0-BOP (80)	Anglin	Lon Stephenson to Enon	Enon	Widening	100%	\$5,825,000	\$ 5,825,000
X-23	NCO-L1-T0-TWLT-P0-BOP (80)	Dick Price	1,935' N of Shadey Ln to 310' S of Shadey Ln	310' S of Shadey Ln	Widening	100%	\$2,291,000	\$ 2,291,000
Intersection Improvements	Type	Road A	Road B		Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Altamesa	Campus		Rebuild	100%	\$ 400,000	\$ 400,000
	Turn Lane Improvements	Altamesa	Hemphill		Retrofit	100%	\$ 640,000	\$ 640,000
	Turn Lane Improvements	Altamesa	Crowley		Retrofit	50%	\$ 885,000	\$ 442,500
	Roundabout	Altamesa	Wichita		Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Altamesa	Forest Hill		Rebuild	75%	\$ 1,500,000	\$ 1,125,000
	Roundabout	Everman	Hemphill		New	50%	\$ 1,000,000	\$ 500,000
	Turn Lane Improvements	Everman	Will Rogers		Retrofit	50%	\$ 295,000	\$ 147,500
	Turn Lane Improvements	Everman	Oak Grove		Rebuild	50%	\$ 800,000	\$ 400,000
	Turn Lane Improvements	Everman	Crowley		Retrofit	25%	\$ 345,000	\$ 86,250
	Roundabout	Everman Kennedale	Anglin		Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	Felix	Hemphill		Retrofit	100%	\$ 360,000	\$ 360,000
	Turn Lane Improvements	Joe B Rushing	Campus		Retrofit	100%	\$ 885,000	\$ 885,000
	Roundabout	Joel East	Oak Grove		Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Joel East	Wichita		Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Lon Stephenson	Anglin		Rebuild	75%	\$ 1,500,000	\$ 1,125,000
	Turn Lane Improvements	Oak Grove	Campus		Rebuild	100%	\$ 200,000	\$ 200,000
	Turn Lane Improvements	Seminary	James		Retrofit	25%	\$ 360,000	\$ 90,000
	Turn Lane Improvements	Seminary	Campus		Retrofit	50%	\$ 1,180,000	\$ 590,000
	Turn Lane Improvements	Sycamore School	Hemphill		Rebuild	100%	\$ 600,000	\$ 600,000

**NOTES:**  
1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.  
2. Intersection Improvements were identified based on impact fee project status, MTP classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based on further design level evaluation.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-1
Name:	Altamesa (3)	<b>This project consists of the construction of a new three-lane undivided commercial connector.</b>		
Limits:	Oak Grove to Wichita			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	6,905			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	14,961	cy	\$ 17.00	\$ 254,334
239	6" Lime Stabilization (with Lime @ 32#/sy)	29,154	sy	\$ 4.00	\$ 116,618
339	11" Concrete Pavement	27,620	sy	\$ 55.00	\$ 1,519,100
439	6" Curb and Gutter	13,810	lf	\$ 7.00	\$ 96,670
539	4" Topsoil	18,413	sy	\$ 5.00	\$ 92,067
639	10' Concrete Sidewalk	138,100	sf	\$ 6.00	\$ 828,600
737	Auxiliary Lanes and Median Openings Allotment	1,177	sf	\$ 59.00	\$ 69,442
Paving Construction Cost Subtotal:					\$ 2,976,831
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	89,305
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	89,305
✓	Roadway Drainage	Standard Internal System	30%	\$	893,049
✓	Illumination		2%	\$	74,024
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	178,610
✓	Sewer	Minor Adjustments	4%	\$	119,073
✓	Establish Turf / Erosion Control		2%	\$	59,537
✓	Basic Landscaping		4%	\$	119,073
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
Allowance Subtotal:					\$ 2,121,976
Paving and Allowance Subtotal:					\$ 5,098,807
Construction Contingency:					15% \$ 689,821
Construction Cost TOTAL:					\$ 5,789,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,789,000
Engineering/Survey/Testing:		20%	\$ 1,157,800
Mobilization		5%	\$ 289,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,157,800
Impact Fee Project Cost TOTAL:			\$ 8,394,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-2
Name:	Altamesa (4)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>		
Limits:	Lana to 600' E of Lana			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	600			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	1,233	cy	\$ 17.00	\$ 20,967
241	6" Lime Stabilization (with Lime @ 32#/sy)	2,400	sy	\$ 4.00	\$ 9,600
341	11" Concrete Pavement	2,267	sy	\$ 55.00	\$ 124,667
441	6" Curb and Gutter	1,200	lf	\$ 7.00	\$ 8,400
541	4" Topsoil	1,733	sy	\$ 5.00	\$ 8,667
641	10' Concrete Sidewalk	12,000	sf	\$ 6.00	\$ 72,000
739	Auxiliary Lanes and Median Openings Allotment	102	sf	\$ 59.00	\$ 6,034
Paving Construction Cost Subtotal:					\$ 250,334
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	7,510
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	7,510
✓	Roadway Drainage	Standard Internal System	30%	\$	75,100
✓	Illumination		2%	\$	6,225
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	15,020
✓	Sewer	Minor Adjustments	4%	\$	10,013
✓	Establish Turf / Erosion Control		2%	\$	5,007
✓	Basic Landscaping		4%	\$	10,013
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 136,399
Paving and Allowance Subtotal:					\$ 386,733
Construction Contingency:					15% \$ 58,010
Construction Cost TOTAL:					\$ 445,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 445,000
Engineering/Survey/Testing:		20%	\$ 89,000
Mobilization		5%	\$ 22,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 89,000
Impact Fee Project Cost TOTAL:			\$ 645,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-3
Name:	Altamesa (5)	This project consists of the construction of a new three-lane undivided neighborhood connector.		
Limits:	600' E of Lana to 650' W of Forest Hill			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,805			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	3,710	cy	\$ 17.00	\$ 63,075
241	6" Lime Stabilization (with Lime @ 32#/sy)	7,220	sy	\$ 4.00	\$ 28,880
341	11" Concrete Pavement	6,819	sy	\$ 55.00	\$ 375,039
441	6" Curb and Gutter	3,610	lf	\$ 7.00	\$ 25,270
541	4" Topsoil	5,214	sy	\$ 5.00	\$ 26,072
641	10' Concrete Sidewalk	36,100	sf	\$ 6.00	\$ 216,600
739	Auxiliary Lanes and Median Openings Allotment	308	sf	\$ 59.00	\$ 18,153
Paving Construction Cost Subtotal:					\$ 753,088
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	22,593
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	22,593
✓	Roadway Drainage	Standard Internal System	30%	\$	225,927
✓	Illumination		2%	\$	18,727
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	45,185
✓	Sewer	Minor Adjustments	4%	\$	30,124
✓	Establish Turf / Erosion Control		2%	\$	15,062
✓	Basic Landscaping		4%	\$	30,124
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 410,333
Paving and Allowance Subtotal:					\$ 1,163,421
Construction Contingency:					15% \$ 174,513
Construction Cost TOTAL:					\$ 1,338,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,338,000
Engineering/Survey/Testing:		20%	\$ 267,600
Mobilization		5%	\$ 66,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 267,600
Impact Fee Project Cost TOTAL:			\$ 1,940,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-4
Name:	Altamesa (6)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>		
Limits:	650' W of Forest Hill to Forest Hill			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	650			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	1,336	cy	\$ 17.00	\$ 22,714
241	6" Lime Stabilization (with Lime @ 32#/sy)	2,600	sy	\$ 4.00	\$ 10,400
341	11" Concrete Pavement	2,456	sy	\$ 55.00	\$ 135,056
441	6" Curb and Gutter	1,300	lf	\$ 7.00	\$ 9,100
541	4" Topsoil	1,878	sy	\$ 5.00	\$ 9,389
641	10' Concrete Sidewalk	13,000	sf	\$ 6.00	\$ 78,000
739	Auxiliary Lanes and Median Openings Allotment	111	sf	\$ 59.00	\$ 6,537
Paving Construction Cost Subtotal:					\$ 271,195
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	8,136
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	8,136
✓	Roadway Drainage	Standard Internal System	30%	\$	81,359
✓	Illumination		2%	\$	6,744
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	16,272
✓	Sewer	Minor Adjustments	4%	\$	10,848
✓	Establish Turf / Erosion Control		2%	\$	5,424
✓	Basic Landscaping		4%	\$	10,848
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 147,765
Paving and Allowance Subtotal:					\$ 418,961
Construction Contingency:					15% \$ 62,844
Construction Cost TOTAL:					\$ 482,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 482,000
Engineering/Survey/Testing:		20%	\$ 96,400
Mobilization		5%	\$ 24,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 96,400
Impact Fee Project Cost TOTAL:			\$ 699,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-5
Name:	Joel East	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided commercial connector.</b>		
Limits:	Oak Grove to Wichita			
Impact Fee Class:	CCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Commercial Connector			
Length (lf):	5,805			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
139	Unclassified Street Excavation	12,578	cy	\$ 17.00	\$ 213,818
239	6" Lime Stabilization (with Lime @ 32#/sy)	24,510	sy	\$ 4.00	\$ 98,040
339	11" Concrete Pavement	23,220	sy	\$ 55.00	\$ 1,277,100
439	6" Curb and Gutter	11,610	lf	\$ 7.00	\$ 81,270
539	4" Topsoil	15,480	sy	\$ 5.00	\$ 77,400
639	10' Concrete Sidewalk	116,100	sf	\$ 6.00	\$ 696,600
737	Auxiliary Lanes and Median Openings Allotment	989	sf	\$ 59.00	\$ 58,380
Paving Construction Cost Subtotal:					\$ 2,502,607
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	75,078
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	75,078
✓	Pavement Markings/Markers		3%	\$	75,078
✓	Roadway Drainage	Standard Internal System	30%	\$	750,782
✓	Illumination		2%	\$	62,232
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	150,156
✓	Sewer	Minor Adjustments	4%	\$	100,104
✓	Establish Turf / Erosion Control		2%	\$	50,052
✓	Basic Landscaping		4%	\$	100,104
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,438,666
Paving and Allowance Subtotal:					\$ 3,941,273
Construction Contingency:					15% \$ 591,191
Construction Cost TOTAL:					\$ 4,533,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,533,000
Engineering/Survey/Testing:		20%	\$ 906,600
Mobilization		5%	\$ 226,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 453,300
Impact Fee Project Cost TOTAL:			\$ 6,120,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-6
Name:	Everman Kennedale (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:	Anglin to 190' E of Anglin			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	190			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	391	cy	\$ 17.00	\$ 6,639
241	6" Lime Stabilization (with Lime @ 32#/sy)	760	sy	\$ 4.00	\$ 3,040
341	11" Concrete Pavement	718	sy	\$ 55.00	\$ 39,478
441	6" Curb and Gutter	380	lf	\$ 7.00	\$ 2,660
541	4" Topsoil	549	sy	\$ 5.00	\$ 2,744
641	10' Concrete Sidewalk	3,800	sf	\$ 6.00	\$ 22,800
739	Auxiliary Lanes and Median Openings Allotment	32	sf	\$ 59.00	\$ 1,911
Paving Construction Cost Subtotal:					\$ 79,272
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	2,378
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	2,378
✓	Pavement Markings/Markers		3%	\$	2,378
✓	Roadway Drainage	Standard Internal System	30%	\$	23,782
✓	Illumination		2%	\$	1,971
✓	Special Drainage Structures	Major Stream Crossing(s)	\$ 365,750	\$	365,750
✓	Water	Minor Adjustments	6%	\$	4,756
✓	Sewer	Minor Adjustments	4%	\$	3,171
✓	Establish Turf / Erosion Control		2%	\$	1,585
✓	Basic Landscaping		4%	\$	3,171
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 411,321
Paving and Allowance Subtotal:					\$ 490,594
Construction Contingency:					15% \$ 73,589
Construction Cost TOTAL:					\$ 565,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 565,000
Engineering/Survey/Testing:		20%	\$ 113,000
Mobilization		5%	\$ 28,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 56,500
Impact Fee Project Cost TOTAL:			\$ 763,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-7
Name:	Everman Kennedale (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:	2,670' E of Anglin to 3,645' E of Anglin			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	975			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	2,004	cy	\$ 17.00	\$ 34,071
241	6" Lime Stabilization (with Lime @ 32#/sy)	3,900	sy	\$ 4.00	\$ 15,600
341	11" Concrete Pavement	3,683	sy	\$ 55.00	\$ 202,583
441	6" Curb and Gutter	1,950	lf	\$ 7.00	\$ 13,650
541	4" Topsoil	2,817	sy	\$ 5.00	\$ 14,083
641	10' Concrete Sidewalk	19,500	sf	\$ 6.00	\$ 117,000
739	Auxiliary Lanes and Median Openings Allotment	166	sf	\$ 59.00	\$ 9,805
Paving Construction Cost Subtotal:					\$ 406,793
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW	Construction Phase Traffic Control		3%	\$ 12,204
✓	Traffic Control			3%	\$ 12,204
✓	Pavement Markings/Markers			3%	\$ 12,204
✓	Roadway Drainage	Standard Internal System		30%	\$ 122,038
✓	Illumination			2%	\$ 10,116
✓	Special Drainage Structures	Drainage Crossing(s)		\$ 616,000	\$ 616,000
✓	Water	Minor Adjustments		6%	\$ 24,408
✓	Sewer	Minor Adjustments		4%	\$ 16,272
✓	Establish Turf / Erosion Control			2%	\$ 8,136
✓	Basic Landscaping			4%	\$ 16,272
	Other:			\$0	\$ -
Allowance Subtotal:					\$ 849,852
Paving and Allowance Subtotal:					\$ 1,256,645
Construction Contingency:					15% \$ 188,497
Construction Cost TOTAL:					\$ 1,446,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,446,000
Engineering/Survey/Testing:		20%	\$ 289,200
Mobilization		5%	\$ 72,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 144,600
Impact Fee Project Cost TOTAL:			\$ 1,952,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-8
Name:	Everman Kennedale (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:	3,645' E of Anglin to 5,350' W of Anglin			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,705			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	3,505	cy	\$ 17.00	\$ 59,580
241	6" Lime Stabilization (with Lime @ 32#/sy)	6,820	sy	\$ 4.00	\$ 27,280
341	11" Concrete Pavement	6,441	sy	\$ 55.00	\$ 354,261
441	6" Curb and Gutter	3,410	lf	\$ 7.00	\$ 23,870
541	4" Topsoil	4,926	sy	\$ 5.00	\$ 24,628
641	10' Concrete Sidewalk	34,100	sf	\$ 6.00	\$ 204,600
739	Auxiliary Lanes and Median Openings Allotment	291	sf	\$ 59.00	\$ 17,147
Paving Construction Cost Subtotal:					\$ 711,366
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	21,341
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	21,341
✓	Pavement Markings/Markers		3%	\$	21,341
✓	Roadway Drainage	Standard Internal System	30%	\$	213,410
✓	Illumination		2%	\$	17,689
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	42,682
✓	Sewer	Minor Adjustments	4%	\$	28,455
✓	Establish Turf / Erosion Control		2%	\$	14,227
✓	Basic Landscaping		4%	\$	28,455
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 408,941
Paving and Allowance Subtotal:					\$ 1,120,307
Construction Contingency:					15% \$ 168,046
Construction Cost TOTAL:					\$ 1,289,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,289,000
Engineering/Survey/Testing:		20%	\$ 257,800
Mobilization		5%	\$ 64,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 128,900
Impact Fee Project Cost TOTAL:			\$ 1,740,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-9
Name:	Enon	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:	2,635' W of Anglin to Anglin			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	2,635			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	5,416	cy	\$ 17.00	\$ 92,079
241	6" Lime Stabilization (with Lime @ 32#/sy)	10,540	sy	\$ 4.00	\$ 42,160
341	11" Concrete Pavement	9,954	sy	\$ 55.00	\$ 547,494
441	6" Curb and Gutter	5,270	lf	\$ 7.00	\$ 36,890
541	4" Topsoil	7,612	sy	\$ 5.00	\$ 38,061
641	10' Concrete Sidewalk	52,700	sf	\$ 6.00	\$ 316,200
739	Auxiliary Lanes and Median Openings Allotment	449	sf	\$ 59.00	\$ 26,500
Paving Construction Cost Subtotal:					\$ 1,099,384
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	32,982
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	32,982
✓	Pavement Markings/Markers		3%	\$	32,982
✓	Roadway Drainage	Standard Internal System	30%	\$	329,815
✓	Illumination		2%	\$	27,338
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	65,963
✓	Sewer	Minor Adjustments	4%	\$	43,975
✓	Establish Turf / Erosion Control		2%	\$	21,988
✓	Basic Landscaping		4%	\$	43,975
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 631,999
Paving and Allowance Subtotal:					\$ 1,731,383
Construction Contingency:					15% \$ 259,707
Construction Cost TOTAL:					\$ 1,992,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,992,000
Engineering/Survey/Testing:		20%	\$ 398,400
Mobilization		5%	\$ 99,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 199,200
Impact Fee Project Cost TOTAL:			\$ 2,689,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-10, Z-1
Name:	Everman (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	Butterwick to Cameron Hill		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,980		
Service Area(s):	X, Z		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	8,609	cy	\$ 17.00	\$ 146,351
230	6" Lime Stabilization (with Lime @ 32#/sy)	16,556	sy	\$ 4.00	\$ 66,222
330	11" Concrete Pavement	15,231	sy	\$ 55.00	\$ 837,711
430	6" Curb and Gutter	11,920	lf	\$ 7.00	\$ 83,440
530	4" Topsoil	14,569	sy	\$ 5.00	\$ 72,844
630	10' Concrete Sidewalk	59,600	sf	\$ 6.00	\$ 357,600
728	Auxiliary Lanes and Median Openings Allotment	1,197	sf	\$ 59.00	\$ 70,594
Paving Construction Cost Subtotal:					\$ 1,634,763
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	49,043
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	49,043
✓	Roadway Drainage	Standard Internal System	30%	\$	490,429
✓	Illumination		2%	\$	40,651
✓	Special Drainage Structures	Minor Stream Crossing(s)	\$ 313,500	\$	313,500
✓	Water	Minor Adjustments	6%	\$	98,086
✓	Sewer	Minor Adjustments	4%	\$	65,391
✓	Establish Turf / Erosion Control		2%	\$	32,695
✓	Basic Landscaping		4%	\$	65,391
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
Allowance Subtotal:					\$ 1,704,228
Paving and Allowance Subtotal:					\$ 3,338,991
Construction Contingency:					15% \$ 425,849
Construction Cost TOTAL:					\$ 3,765,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,765,000
Engineering/Survey/Testing:		20%	\$ 753,000
Mobilization		5%	\$ 188,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 753,000
Impact Fee Project Cost TOTAL:			\$ 5,459,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-11, Z-2
Name:	Everman (2)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided neighborhood connector.</b>	
Limits:	Cameron Hill to 110' E of Sheridan		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,335		
Service Area(s):	X, Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	1,928	cy	\$ 17.00	\$ 32,782
231	6" Lime Stabilization (with Lime @ 32#/sy)	3,708	sy	\$ 4.00	\$ 14,833
331	11" Concrete Pavement	3,412	sy	\$ 55.00	\$ 187,642
431	6" Curb and Gutter	2,670	lf	\$ 7.00	\$ 18,690
531	4" Topsoil	3,263	sy	\$ 5.00	\$ 16,317
631	10' Concrete Sidewalk	13,350	sf	\$ 6.00	\$ 80,100
729	Auxiliary Lanes and Median Openings Allotment	536	sf	\$ 59.00	\$ 31,625

**Paving Construction Cost Subtotal: \$ 381,989**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 11,460
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 11,460
✓ Pavement Markings/Markers		3%	\$ 11,460
✓ Roadway Drainage	Standard Internal System	30%	\$ 114,597
✓ Illumination		2%	\$ 9,499
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 22,919
✓ Sewer	Minor Adjustments	4%	\$ 15,280
✓ Establish Turf / Erosion Control		2%	\$ 7,640
✓ Basic Landscaping		4%	\$ 15,280
Other:		\$0	\$ -

**Allowance Subtotal: \$ 219,593**

**Paving and Allowance Subtotal: \$ 601,581**

**Construction Contingency: 15% \$ 90,237**

**Construction Cost TOTAL: \$ 692,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 692,000
Engineering/Survey/Testing:		20%	\$ 138,400
Mobilization		5%	\$ 34,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 69,200

**Impact Fee Project Cost TOTAL: \$ 934,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-12
Name:	Hemphill (1)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided neighborhood connector.</b>	
Limits:	Sunderland to Sycamore School		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	4,150		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	5,994	cy	\$ 17.00	\$ 101,906
231	6" Lime Stabilization (with Lime @ 32#/sy)	11,528	sy	\$ 4.00	\$ 46,111
331	11" Concrete Pavement	10,606	sy	\$ 55.00	\$ 583,306
431	6" Curb and Gutter	8,300	lf	\$ 7.00	\$ 58,100
531	4" Topsoil	10,144	sy	\$ 5.00	\$ 50,722
631	10' Concrete Sidewalk	41,500	sf	\$ 6.00	\$ 249,000
729	Auxiliary Lanes and Median Openings Allotment	1,666	sf	\$ 59.00	\$ 98,311
Paving Construction Cost Subtotal:					\$ 1,187,455
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW	Construction Phase Traffic Control		3%	\$ 35,624
✓	Traffic Control			3%	\$ 35,624
✓	Pavement Markings/Markers			3%	\$ 35,624
✓	Roadway Drainage	Standard Internal System		30%	\$ 356,237
✓	Illumination			2%	\$ 29,528
	Special Drainage Structures	None Anticipated		\$ -	\$ -
✓	Water	Minor Adjustments		6%	\$ 71,247
✓	Sewer	Minor Adjustments		4%	\$ 47,498
✓	Establish Turf / Erosion Control			2%	\$ 23,749
✓	Basic Landscaping			4%	\$ 47,498
	Other:			\$0	\$ -
Allowance Subtotal:					\$ 682,629
Paving and Allowance Subtotal:					\$ 1,870,084
Construction Contingency: 15%					\$ 280,513
Construction Cost TOTAL:					\$ 2,151,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,151,000
Engineering/Survey/Testing:		20%	\$ 430,200
Mobilization		5%	\$ 107,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 215,100
Impact Fee Project Cost TOTAL:			\$ 2,904,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-13
Name:	Hemphill (2)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided neighborhood connector.</b>		
Limits:	360' S of Sycamore School to 815' N of Everman			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,185			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	3,156	cy	\$ 17.00	\$ 53,654
231	6" Lime Stabilization (with Lime @ 32#/sy)	6,069	sy	\$ 4.00	\$ 24,278
331	11" Concrete Pavement	5,584	sy	\$ 55.00	\$ 307,114
431	6" Curb and Gutter	4,370	lf	\$ 7.00	\$ 30,590
531	4" Topsoil	5,341	sy	\$ 5.00	\$ 26,706
631	10' Concrete Sidewalk	21,850	sf	\$ 6.00	\$ 131,100
729	Auxiliary Lanes and Median Openings Allotment	877	sf	\$ 59.00	\$ 51,761
Paving Construction Cost Subtotal:					\$ 625,202
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	18,756
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	18,756
✓	Pavement Markings/Markers		3%	\$	18,756
✓	Roadway Drainage	Standard Internal System	30%	\$	187,561
✓	Illumination		2%	\$	15,547
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	37,512
✓	Sewer	Minor Adjustments	4%	\$	25,008
✓	Establish Turf / Erosion Control		2%	\$	12,504
✓	Basic Landscaping		4%	\$	25,008
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 359,408
Paving and Allowance Subtotal:					\$ 984,610
Construction Contingency: 15%					\$ 147,692
Construction Cost TOTAL:					\$ 1,133,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,133,000
Engineering/Survey/Testing:		20%	\$ 226,600
Mobilization		5%	\$ 56,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 113,300
Impact Fee Project Cost TOTAL:			\$ 1,530,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-14
Name:	Hemphill (3)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	815' N of Everman to Everman		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	815		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	2,354	cy	\$ 17.00	\$ 40,026
230	6" Lime Stabilization (with Lime @ 32#/sy)	4,528	sy	\$ 4.00	\$ 18,111
330	11" Concrete Pavement	4,166	sy	\$ 55.00	\$ 229,106
430	6" Curb and Gutter	3,260	lf	\$ 7.00	\$ 22,820
530	4" Topsoil	3,984	sy	\$ 5.00	\$ 19,922
630	10' Concrete Sidewalk	16,300	sf	\$ 6.00	\$ 97,800
728	Auxiliary Lanes and Median Openings Allotment	327	sf	\$ 59.00	\$ 19,307
Paving Construction Cost Subtotal:					\$ 447,091
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	13,413
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	13,413
✓	Roadway Drainage	Standard Internal System	30%	\$	134,127
✓	Illumination		2%	\$	11,118
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	26,825
✓	Sewer	Minor Adjustments	4%	\$	17,884
✓	Establish Turf / Erosion Control		2%	\$	8,942
✓	Basic Landscaping		4%	\$	17,884
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 243,605
Paving and Allowance Subtotal:					\$ 690,696
Construction Contingency:					15% \$ 103,604
Construction Cost TOTAL:					\$ 795,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 795,000
Engineering/Survey/Testing:		20%	\$ 159,000
Mobilization		5%	\$ 39,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 159,000
Impact Fee Project Cost TOTAL:			\$ 1,153,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-15
Name:	Oak Grove (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:	Englad to Campus		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,830		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	5,287	cy	\$ 17.00	\$ 89,873
230	6" Lime Stabilization (with Lime @ 32#/sy)	10,167	sy	\$ 4.00	\$ 40,667
330	11" Concrete Pavement	9,353	sy	\$ 55.00	\$ 514,433
430	6" Curb and Gutter	7,320	lf	\$ 7.00	\$ 51,240
530	4" Topsoil	8,947	sy	\$ 5.00	\$ 44,733
630	10' Concrete Sidewalk	36,600	sf	\$ 6.00	\$ 219,600
728	Auxiliary Lanes and Median Openings Allotment	735	sf	\$ 59.00	\$ 43,352
Paving Construction Cost Subtotal:					\$ 1,003,898
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	30,117
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	30,117
✓	Pavement Markings/Markers		3%	\$	30,117
✓	Roadway Drainage	Standard Internal System	30%	\$	301,169
✓	Illumination		2%	\$	24,964
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	60,234
✓	Sewer	Minor Adjustments	4%	\$	40,156
✓	Establish Turf / Erosion Control		2%	\$	20,078
✓	Basic Landscaping		4%	\$	40,156
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 577,108
Paving and Allowance Subtotal:					\$ 1,581,006
Construction Contingency:					15% \$ 237,151
Construction Cost TOTAL:					\$ 1,819,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,819,000
Engineering/Survey/Testing:		20%	\$ 363,800
Mobilization		5%	\$ 90,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 181,900
Impact Fee Project Cost TOTAL:			\$ 2,456,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-16
Name:	Oak Grove (2)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided commercial connector.</b>	
Limits:	470' S of Alta Mesa to Railroad		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	525		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	788	cy	\$ 17.00	\$ 13,388
224	6" Lime Stabilization (with Lime @ 32#/sy)	1,517	sy	\$ 4.00	\$ 6,067
324	11" Concrete Pavement	1,400	sy	\$ 55.00	\$ 77,000
424	6" Curb and Gutter	1,050	lf	\$ 7.00	\$ 7,350
524	4" Topsoil	1,225	sy	\$ 5.00	\$ 6,125
624	10' Concrete Sidewalk	5,250	sf	\$ 6.00	\$ 31,500
722	Auxiliary Lanes and Median Openings Allotment	211	sf	\$ 59.00	\$ 12,437
Paving Construction Cost Subtotal:					\$ 153,866
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	4,616
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	4,616
✓	Pavement Markings/Markers		3%	\$	4,616
✓	Roadway Drainage	Standard Internal System	30%	\$	46,160
✓	Illumination		2%	\$	3,826
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	9,232
✓	Sewer	Minor Adjustments	4%	\$	6,155
✓	Establish Turf / Erosion Control		2%	\$	3,077
✓	Basic Landscaping		4%	\$	6,155
✓	Other:	Railroad Crossing	\$250,000	\$	250,000
Allowance Subtotal:					\$ 338,452
Paving and Allowance Subtotal:					\$ 492,319
Construction Contingency:					15% \$ 36,348
Construction Cost TOTAL:					\$ 529,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 529,000
Engineering/Survey/Testing:		20%	\$ 105,800
Mobilization		5%	\$ 26,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 52,900
Impact Fee Project Cost TOTAL:			\$ 714,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-17
Name:	Oak Grove (3)	<b>This project consists of the construction of the western lanes to complete the four-lane divided commercial connector.</b>	
Limits:	Railroad to Joel East		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	1,780		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	2,670	cy	\$ 17.00	\$ 45,390
224	6" Lime Stabilization (with Lime @ 32#/sy)	5,142	sy	\$ 4.00	\$ 20,569
324	11" Concrete Pavement	4,747	sy	\$ 55.00	\$ 261,067
424	6" Curb and Gutter	3,560	lf	\$ 7.00	\$ 24,920
524	4" Topsoil	4,153	sy	\$ 5.00	\$ 20,767
624	10' Concrete Sidewalk	17,800	sf	\$ 6.00	\$ 106,800
722	Auxiliary Lanes and Median Openings Allotment	715	sf	\$ 59.00	\$ 42,167
Paving Construction Cost Subtotal:					\$ 521,679
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW	Construction Phase Traffic Control		3%	\$ 15,650
✓	Traffic Control			3%	\$ 15,650
✓	Pavement Markings/Markers			3%	\$ 15,650
✓	Roadway Drainage	Standard Internal System		30%	\$ 156,504
✓	Illumination			2%	\$ 12,972
	Special Drainage Structures	None Anticipated		\$ -	\$ -
✓	Water	Minor Adjustments		6%	\$ 31,301
✓	Sewer	Minor Adjustments		4%	\$ 20,867
✓	Establish Turf / Erosion Control			2%	\$ 10,434
✓	Basic Landscaping			4%	\$ 20,867
✓	Other:	Railroad Crossing		\$250,000	\$ 250,000
Allowance Subtotal:					\$ 549,896
Paving and Allowance Subtotal:					\$ 1,071,575
Construction Contingency:					15% \$ 123,236
Construction Cost TOTAL:					\$ 1,195,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,195,000
Engineering/Survey/Testing:		20%	\$ 239,000
Mobilization		5%	\$ 59,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 119,500
Impact Fee Project Cost TOTAL:			\$ 1,613,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-18
Name:	Oak Grove (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector.</b>	
Limits:	Joel East to Everman		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	6,600		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	22,367	cy	\$ 17.00	\$ 380,233
225	6" Lime Stabilization (with Lime @ 32#/sy)	44,000	sy	\$ 4.00	\$ 176,000
325	11" Concrete Pavement	42,533	sy	\$ 55.00	\$ 2,339,333
425	6" Curb and Gutter	13,200	lf	\$ 7.00	\$ 92,400
525	4" Topsoil	23,467	sy	\$ 5.00	\$ 117,333
625	10' Concrete Sidewalk	132,000	sf	\$ 6.00	\$ 792,000
723	Auxiliary Lanes and Median Openings Allotment	1,125	sf	\$ 59.00	\$ 66,375
Paving Construction Cost Subtotal:					\$ 3,963,675
Major Construction Component Allowances:					
Item Description		Notes		Allowance	Item Cost
✓	Prep ROW			3%	\$ 118,910
✓	Traffic Control	Construction Phase Traffic Control		3%	\$ 118,910
✓	Pavement Markings/Markers			3%	\$ 118,910
✓	Roadway Drainage	Standard Internal System		30%	\$ 1,189,103
✓	Illumination			2%	\$ 98,563
✓	Special Drainage Structures	Minor Stream Crossing(s)		\$ 158,000	\$ 158,000
✓	Water	Minor Adjustments		6%	\$ 237,821
✓	Sewer	Minor Adjustments		4%	\$ 158,547
✓	Establish Turf / Erosion Control			2%	\$ 79,274
✓	Basic Landscaping			4%	\$ 158,547
	Other:			\$0	\$ -
Allowance Subtotal:					\$ 2,436,585
Paving and Allowance Subtotal:					\$ 6,400,260
Construction Contingency:					15% \$ 960,039
Construction Cost TOTAL:					\$ 7,361,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,361,000
Engineering/Survey/Testing:		20%	\$ 1,472,200
Mobilization		5%	\$ 368,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 736,100
Impact Fee Project Cost TOTAL:			\$ 9,937,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-19
Name:	Wichita (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector.</b>	
Limits:	345' N of Altamesa to Joel East		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	1,040		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	3,120	cy	\$ 17.00	\$ 53,040
223	6" Lime Stabilization (with Lime @ 32#/sy)	6,009	sy	\$ 4.00	\$ 24,036
323	11" Concrete Pavement	5,547	sy	\$ 55.00	\$ 305,067
423	6" Curb and Gutter	4,160	lf	\$ 7.00	\$ 29,120
523	4" Topsoil	4,853	sy	\$ 5.00	\$ 24,267
623	10' Concrete Sidewalk	20,800	sf	\$ 6.00	\$ 124,800
721	Auxiliary Lanes and Median Openings Allotment	418	sf	\$ 59.00	\$ 24,637
Paving Construction Cost Subtotal:					\$ 584,966
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	17,549
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	17,549
✓	Pavement Markings/Markers		3%	\$	17,549
✓	Roadway Drainage	Standard Internal System	30%	\$	175,490
✓	Illumination		2%	\$	14,546
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	35,098
✓	Sewer	Minor Adjustments	4%	\$	23,399
✓	Establish Turf / Erosion Control		2%	\$	11,699
✓	Basic Landscaping		4%	\$	23,399
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 336,277
Paving and Allowance Subtotal:					\$ 921,243
Construction Contingency:					15% \$ 138,186
Construction Cost TOTAL:					\$ 1,060,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,060,000
Engineering/Survey/Testing:		20%	\$ 212,000
Mobilization		5%	\$ 53,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 106,000
Impact Fee Project Cost TOTAL:			\$ 1,431,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-20
Name:	Wichita (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector.</b>	
Limits:	Joel East to 960' S of Joel East		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	960		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	2,880	cy	\$ 17.00	\$ 48,960
223	6" Lime Stabilization (with Lime @ 32#/sy)	5,547	sy	\$ 4.00	\$ 22,187
323	11" Concrete Pavement	5,120	sy	\$ 55.00	\$ 281,600
423	6" Curb and Gutter	3,840	lf	\$ 7.00	\$ 26,880
523	4" Topsoil	4,480	sy	\$ 5.00	\$ 22,400
623	10' Concrete Sidewalk	19,200	sf	\$ 6.00	\$ 115,200
721	Auxiliary Lanes and Median Openings Allotment	385	sf	\$ 59.00	\$ 22,742
Paving Construction Cost Subtotal:					\$ 539,968
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	16,199
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	16,199
✓	Pavement Markings/Markers		3%	\$	16,199
✓	Roadway Drainage	Standard Internal System	30%	\$	161,991
✓	Illumination		2%	\$	13,427
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	32,398
✓	Sewer	Minor Adjustments	4%	\$	21,599
✓	Establish Turf / Erosion Control		2%	\$	10,799
✓	Basic Landscaping		4%	\$	21,599
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 310,410
Paving and Allowance Subtotal:					\$ 850,378
Construction Contingency:					15% \$ 127,557
Construction Cost TOTAL:					\$ 978,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 978,000
Engineering/Survey/Testing:		20%	\$ 195,600
Mobilization		5%	\$ 48,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 97,800
Impact Fee Project Cost TOTAL:			\$ 1,320,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	X-21
Name:	Forest Hill	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:	Lon Stephenson to 905' S of Hanna Ranch			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,790			
Service Area(s):	X			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,949	cy	\$ 17.00	\$ 186,131
230	6" Lime Stabilization (with Lime @ 32#/sy)	21,056	sy	\$ 4.00	\$ 84,222
330	11" Concrete Pavement	19,371	sy	\$ 55.00	\$ 1,065,411
430	6" Curb and Gutter	15,160	lf	\$ 7.00	\$ 106,120
530	4" Topsoil	18,529	sy	\$ 5.00	\$ 92,644
630	10' Concrete Sidewalk	75,800	sf	\$ 6.00	\$ 454,800
728	Auxiliary Lanes and Median Openings Allotment	1,522	sf	\$ 59.00	\$ 89,783
Paving Construction Cost Subtotal:					\$ 2,079,112
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	62,373
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	62,373
✓	Pavement Markings/Markers		3%	\$	62,373
✓	Roadway Drainage	Standard Internal System	30%	\$	623,734
✓	Illumination		2%	\$	51,701
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	124,747
✓	Sewer	Minor Adjustments	4%	\$	83,164
✓	Establish Turf / Erosion Control		2%	\$	41,582
✓	Basic Landscaping		4%	\$	83,164
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,195,212
Paving and Allowance Subtotal:					\$ 3,274,324
Construction Contingency:					15% \$ 491,149
Construction Cost TOTAL:					\$ 3,766,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,766,000
Engineering/Survey/Testing:		20%	\$ 753,200
Mobilization		5%	\$ 188,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 376,600
Impact Fee Project Cost TOTAL:			\$ 5,084,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-22
Name:	Anglin	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>	
Limits:	Lon Stephenson to Enon		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	5,270		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	10,833	cy	\$ 17.00	\$ 184,157
241	6" Lime Stabilization (with Lime @ 32#/sy)	21,080	sy	\$ 4.00	\$ 84,320
341	11" Concrete Pavement	19,909	sy	\$ 55.00	\$ 1,094,989
441	6" Curb and Gutter	10,540	lf	\$ 7.00	\$ 73,780
541	4" Topsoil	15,224	sy	\$ 5.00	\$ 76,122
641	10' Concrete Sidewalk	105,400	sf	\$ 6.00	\$ 632,400
739	Auxiliary Lanes and Median Openings Allotment	898	sf	\$ 59.00	\$ 52,999
Paving Construction Cost Subtotal:					\$ 2,198,768
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	65,963
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	65,963
✓	Pavement Markings/Markers		3%	\$	65,963
✓	Roadway Drainage	Standard Internal System	30%	\$	659,630
✓	Illumination		2%	\$	54,676
✓	Special Drainage Structures	Minor Stream Crossing(s)	\$ 288,750	\$	288,750
✓	Water	Minor Adjustments	6%	\$	131,926
✓	Sewer	Minor Adjustments	4%	\$	87,951
✓	Establish Turf / Erosion Control		2%	\$	43,975
✓	Basic Landscaping		4%	\$	87,951
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 1,552,748
Paving and Allowance Subtotal:					\$ 3,751,516
Construction Contingency:					15% \$ 562,727
Construction Cost TOTAL:					\$ 4,315,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,315,000
Engineering/Survey/Testing:		20%	\$ 863,000
Mobilization		5%	\$ 215,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 431,500
Impact Fee Project Cost TOTAL:			\$ 5,825,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-23
Name:	Dick Price	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>	
Limits:	1,935' N of Shadey Ln to 310' S of Shadey Ln		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	2,245		
Service Area(s):	X		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	4,615	cy	\$ 17.00	\$ 78,450
241	6" Lime Stabilization (with Lime @ 32#/sy)	8,980	sy	\$ 4.00	\$ 35,920
341	11" Concrete Pavement	8,481	sy	\$ 55.00	\$ 466,461
441	6" Curb and Gutter	4,490	lf	\$ 7.00	\$ 31,430
541	4" Topsoil	6,486	sy	\$ 5.00	\$ 32,428
641	10' Concrete Sidewalk	44,900	sf	\$ 6.00	\$ 269,400
739	Auxiliary Lanes and Median Openings Allotment	383	sf	\$ 59.00	\$ 22,578
Paving Construction Cost Subtotal:					\$ 936,667
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	28,100
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	28,100
✓	Pavement Markings/Markers		3%	\$	28,100
✓	Roadway Drainage	Standard Internal System	30%	\$	281,000
✓	Illumination		2%	\$	23,292
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	56,200
✓	Sewer	Minor Adjustments	4%	\$	37,467
✓	Establish Turf / Erosion Control		2%	\$	18,733
✓	Basic Landscaping		4%	\$	37,467
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 538,458
Paving and Allowance Subtotal:					\$ 1,475,125
Construction Contingency:					15% \$ 221,269
Construction Cost TOTAL:					\$ 1,697,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,697,000
Engineering/Survey/Testing:		20%	\$ 339,400
Mobilization		5%	\$ 84,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 169,700
Impact Fee Project Cost TOTAL:			\$ 2,291,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**Appendix A - Service Area Y**



City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area Y

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
W-2, Y-1	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (1)	Bryant Irvin to Harris	Previous	50%	\$ 7,673,507	\$ 3,836,753
W-3, Y-2	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (2)	Harris to Chisholm Trail	Previous	50%	\$ 2,285,725	\$ 1,142,863
W-4, Y-3	NCO-L3-T0-NTMS-P0-BOP (130)	Altamesa (3)	Chisholm Trail to Granbury	Previous	50%	\$ 6,367,378	\$ 3,183,689
Y-4	CMU-L2-T0-TWLT-P0-BLC (110)	Columbus Trail (1)	Bryant Irvin (Future) to Old Granbury	New	100%	\$ 1,881,000	\$ 1,881,000
Y-5	CMU-L2-T0-TWLT-P0-BLC (110)	Columbus Trail (2)	Old Granbury to Brewer (Future)	Widening	100%	\$ 1,963,000	\$ 1,963,000
Y-6	CCO-L2-T0-NTMS-P0-BOP (110)	Sycamore School (1)	Brewer (Future) to Chisholm Trail	Widening	100%	\$ 1,004,000	\$ 1,004,000
Y-7	CCO (E)	Sycamore School (2)	Summer Creek to Creek Meadows	Previous	100%	\$ 182,692	\$ 182,692
Y-8	SYS-L2-T0-NTMS-P0-BOP (110) (1/2)	Risinger (1)	760' E of McCart to Poynter	Widening	100%	\$ 1,025,000	\$ 1,025,000
Y-9	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (2)	Poynter to 275' E of Carolina	New	100%	\$ 2,984,000	\$ 2,984,000
Y-10	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (3)	275' E of Carolina to FM 731	Widening	100%	\$ 3,949,000	\$ 3,949,000
Y-11	CCO-L2-T0-TWLT-P0-BOP (110) (1/2)	McPherson (1)	Risinger to 795' E of Risinger	Widening	100%	\$ 570,000	\$ 570,000
Y-12	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	McPherson (2)	795' E of Risinger to Chisholm Trail SBFR	Widening	100%	\$ 3,386,000	\$ 3,386,000
Y-13	NCO-L2-T0-NTMS-P0-BLS (110)	McPherson (3)	Summer Creek to Willow Branch	Previous	100%	\$ 1,357,532	\$ 1,357,532
Y-14	NCO-L2-T0-NTMS-P0-BLS (110)	McPherson (4)	Cleburne to 3970' E of Cleburne	New	100%	\$ 5,722,000	\$ 5,722,000
Y-15	CCO-L2-T0-TWLT-P0-BOP (110)	Stewart Feltz (1)	Brewer to Chisholm Trail	New	100%	\$ 2,816,000	\$ 2,816,000
Y-16	CCO-L2-T0-TWLT-P0-BOP (110)	Stewart Feltz (2)	Chisholm Trail to Cleburne Crowley	New	100%	\$ 1,850,000	\$ 1,850,000
Y-17	CCO-L2-T0-TWLT-P0-BOP (110)	Summer Creek (1)	2,515' S of Stewart Feltz (Future) to 3,055' S of Stewart Feltz (Future)	Widening	100%	\$ 794,000	\$ 794,000
Y-18	CCO-L2-T0-TWLT-P0-BOP (110)	Summer Creek (2)	Stewart Feltz (Future) to 2,515' S of Stewart Feltz	New	100%	\$ 3,892,000	\$ 3,892,000
Y-19	CCO-L2-T0-TWLT-P0-BOP (110)	Cleburne Crowley (1)	Stewart Feltz (Future) to Cleburne Crowley (Existing)	New	100%	\$ 6,267,000	\$ 6,267,000
Y-20	NCO-L2-T0-TWLT-P0-BOP (110)	Cleburne Crowley (2)	Cleburne Crowley (Existing) to 480' W of Cleburne	Widening	100%	\$ 1,658,000	\$ 1,658,000
Y-21	NCO-L2-T0-TWLT-P0-BOP (110)	Cleburne Crowley (3)	480' W of Cleburne to Cleburne	Widening	100%	\$ 690,000	\$ 690,000
Y-22	NCO-L1-T0-TWLT-P0-BOP (80)	Cleburne Crowley (4)	Cleburne to 945' E of Cleburne	Widening	100%	\$ 965,000	\$ 965,000
W-5, Y-23	NCO-L2-T0-NTMS-P0-BOP (110)	Bryant Irvin (1)	Altamesa to 2,280' S of Altamesa	New	50%	\$ 3,223,000	\$ 1,611,500
Y-24	CMU-L2-T0-TWLT-P0-BLC (110)	Bryant Irvin (2)	2,280' S of Altamesa to Columbus (Future)	New	100%	\$ 7,028,000	\$ 7,028,000
Y-25	NCO-L2-T0-TWLT-P0-BOP (110)	Bryant Irvin (3)	Columbus Trail (Future) to McPherson	New	100%	\$ 14,593,000	\$ 14,593,000
Y-26	CMU-L2-T0-TWLT-P0-BLC (110)	Brewer (1)	Columbus Trail to 2,740' S of Columbus Trail	New	100%	\$ 4,423,000	\$ 4,423,000
Y-27	CCO-L2-T0-NTMS-P0-BOP (110)	Brewer (2)	Risinger to Rockrose	New	100%	\$ 3,624,000	\$ 3,624,000
Y-28	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Brewer (3)	Rockrose to McPherson	Widening	100%	\$ 859,000	\$ 859,000
Y-29	NCO-L2-T0-NTMS-P0-BOP (110)	Brewer (4)	Mcpherson to Stewart Feltz (Future)	New	100%	\$ 14,952,000	\$ 14,952,000
Y-30	NCO-L1-T0-TWLT-P0-BOP (80)	Brewer (5)	Stewart Feltz (Future) to 4,935' S of Stewart Feltz	New	100%	\$ 5,306,000	\$ 5,306,000
Y-31	NCO (E)	Granbury	445' S of Altamesa to 275' S of Mesa Springs	Previous	100%	\$ 1,807,652	\$ 1,807,652
Y-32	NCO (E)	Granbury/Summer Creek	Summer Meadows to Sycamore School	Previous	100%	\$ 465,526	\$ 465,526
Y-33	NCO (E)	Summer Creek (3)	Sycamore School to Columbus	Previous	100%	\$ 290,954	\$ 290,954
Y-34	NCO (E)	Summer Creek (4)	145' N of Summer Park to Risinger	Previous	100%	\$ 1,357,532	\$ 1,357,532
Y-35	NCO (E)	Summer Creek (5)	Risinger to McPherson	Previous	100%	\$ 2,133,265	\$ 2,133,265
Y-36	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)	Summer Creek (6)	McPherson to Sunflower Ridge	Widening	100%	\$ 1,759,000	\$ 1,759,000
Y-37	NCO-L2-T0-NTMS-P0-BLS (110)	Summer Creek (7)	Sunflower Ridge to 710' N of Cleburne Crowley	New	100%	\$ 6,197,000	\$ 6,197,000
Y-38	NCO-L2-T0-NTMS-P0-BLS (110)	Cleburne (1)	Cleburne Crowley to 3,185' S of Cleburne Crowley	Widening	100%	\$ 4,358,000	\$ 4,358,000
Y-39	NCO-L2-T0-NTMS-P0-BLS (110)	Cleburne (2)	3,185' S of Cleburne Crowley to Longhorn Trail	New	100%	\$ 2,516,000	\$ 2,516,000
Y-40	NCO-L1-T0-TWLT-P0-BOP (80) (1/2)	Hulen	Winnipeg to 335' N of Rancho Verde	Previous	100%	\$ 1,083,941	\$ 1,083,941
Y-41	NCO-L1-T0-TWLT-P0-BOP (80)	Cleburne (3)	335' N of Rancho Verde to 330' S of Rancho Verde	Previous	100%	\$ 486,988	\$ 486,988
Y-42	NCO-L1-T0-TWLT-P0-BOP (80)	Cleburne (4)	330' S of Rancho Verde to 2,295' S of Rancho Verde	Widening	100%	\$ 2,005,000	\$ 2,005,000
Y-43	SYS-L2-T0-NTMS-P0-BLS (110) (1/2)	McCart (1)	590' S of Risinger to 120' S of Cayman	Widening	100%	\$ 1,127,000	\$ 1,127,000
Y-44	SYS-L2-T0-NTMS-P0-BLS (110)	McCart (2)	120' S of Cayman to McPherson (Future)	New	100%	\$ 4,485,000	\$ 4,485,000
Y-45	NCO-L2-T0-NTMS-P0-BLS (110)	McCart (3)	McPherson (Future) to 140' N of Twinleaf	New	100%	\$ 4,554,000	\$ 4,554,000
Y-46	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)	McCart (4)	Mountain Meadow to 1,600' S of Mountain Meadow	Widening	100%	\$ 1,141,000	\$ 1,141,000
Y-47	NCO-L2-T0-TWLT-P0-BOP (110)	Industrial	McCart to 1,005' E of McCart	New	100%	\$ 1,520,000	\$ 1,520,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Turn Lane Improvements	Altamesa	FM 731	Retrofit	50%	\$ 885,000	\$ 442,500
	Turn Lane Improvements	Altamesa	Bryant Irvin	Rebuild	25%	\$ 300,000	\$ 75,000
	Turn Lane Improvements	Altamesa	Granbury	Retrofit	50%	\$ 525,000	\$ 262,500
	Turn Lane Improvements	Altamesa	Hulen	Retrofit	50%	\$ 230,000	\$ 115,000
	Turn Lane Improvements	Altamesa	McCart	Retrofit	50%	\$ 295,000	\$ 147,500
	Roundabout	Columbus Trail	Bryant Irvin	New	100%	\$ 1,000,000	\$ 1,000,000
	Turn Lane Improvements	Columbus Trail	Brewer	Rebuild	100%	\$ 400,000	\$ 400,000
	Turn Lane Improvements	Sycamore School	FM 731	Retrofit	50%	\$ 345,000	\$ 172,500
	Roundabout	McCart	Industrial	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	McPherson	Hulen	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Roundabout	McPherson	McCart	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Risinger	Summer Creek	Retrofit	100%	\$ 2,500,000	\$ 2,500,000
	Turn Lane Improvements	Risinger	Hulen	Retrofit	100%	\$ 590,000	\$ 590,000
	Turn Lane Improvements	Risinger	McCart	Retrofit	100%	\$ 460,000	\$ 460,000
	Turn Lane Improvements	Risinger	FM 731	Rebuild	50%	\$ 1,000,000	\$ 500,000
	Roundabout	Stewart Feltz	Brewer	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Stewart Feltz	Summer Creek	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	Cleburne Crowley	Cleburne	Rebuild	50%	\$ 1,500,000	\$ 750,000
	Turn Lane Improvements	Sycamore School	Summer Creek	Retrofit	100%	\$ 460,000	\$ 460,000
	Turn Lane Improvements	Sycamore School	Hulen	Retrofit	100%	\$ 1,000,000	\$ 1,000,000

**NOTES:**  
1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.  
2. Intersection Improvements were identified based on impact fee project status, MTP classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	W-2, Y-1
Name:	Altamesa (1)	<b>This project consisted of the reconstruction of the existing asphalt facility as a six-lane divided neighborhood connector. The City contributed \$16,326,610 overall to this project. This segment accounts for 47% (\$7,673,507) of the overall project.</b>		
Limits:	Bryant Irvin to Harris			
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	2,735			
Service Area(s):	Y, W			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 5,798,823
Engineering/Survey/Testing:			\$ 1,396,837
Previous City contribution	Transportation Impact Fees Legacy Fund		\$ (1,574,500)
ROW/Easement Acquisition:			\$ 2,052,346
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 7,673,507</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	W-3, Y-2
Name:	Altamesa (2)	<b>This project consisted of the reconstruction of the existing asphalt facility as a six-lane divided neighborhood connector. The City contributed \$16,326,610 overall to this project. This segment accounts for 14% (\$2,285,725) of the overall project.</b>		
Limits:	Harris to Chisholm Trail			
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130)			
Ultimate Class:	6 Lane Divided Neighborhood Connector			
Length (lf):	825			
Service Area(s):	Y, W			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 1,727,309
Engineering/Survey/Testing:			\$ 416,079
Previous City contribution	Transportation Impact Fees Legacy Fund		\$ (469,000)
ROW/Easement Acquisition:			\$ 611,337
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,285,725</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted contruction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*  
 updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Altamesa (3)	<b>This project consisted of the reconstruction of the existing asphalt facility as a six-lane divided neighborhood connector. The City contributed \$16,326,610 overall to this project. This segment accounts for 39% (\$6,367,378) of the overall project.</b>	<b>W-4, Y-3</b>
Limits:	Chisholm Trail to Granbury		
Impact Fee Class:	NCO-L3-T0-NTMS-P0-BOP (130)		
Ultimate Class:	6 Lane Divided Neighborhood Connector		
Length (lf):	2,265		
Service Area(s):	Y, W		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Transportation Impact Fees Legacy Fund		\$ 4,811,789
Engineering/Survey/Testing:			\$ 1,159,078
Previous City contribution			\$ (1,306,500)
ROW/Easement Acquisition:			\$ 1,703,011
Impact Fee Project Cost TOTAL:			\$ 6,367,378

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-4
Name:	Columbus Trail (1)	<b>This project consists of the construction of a new five-lane undivided commerce/mixed use street.</b>		
Limits:	Bryant Irvin (Future) to Old Granbury			
Impact Fee Class:	CMU-L2-T0-TWLT-P0-BLC (110)			
Ultimate Class:	5 Lane Undivided Commerce/Mixed-Use Street			
Length (lf):	1,165			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
127	Unclassified Street Excavation	4,595	cy	\$ 17.00	\$ 78,120
227	6" Lime Stabilization (with Lime @ 32#/sy)	9,061	sy	\$ 4.00	\$ 36,244
327	11" Concrete Pavement	8,802	sy	\$ 55.00	\$ 484,122
427	6" Curb and Gutter	2,330	lf	\$ 7.00	\$ 16,310
527	4" Topsoil	3,883	sy	\$ 5.00	\$ 19,417
627	6' Concrete Sidewalk	13,980	sf	\$ 6.00	\$ 83,880
725	Auxiliary Lanes and Median Openings Allotment	199	sf	\$ 59.00	\$ 11,716
Paving Construction Cost Subtotal:					\$ 729,809
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	21,894
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	21,894
✓	Roadway Drainage	Standard Internal System	30%	\$	218,943
✓	Illumination		2%	\$	18,148
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	43,789
✓	Sewer	Minor Adjustments	4%	\$	29,192
✓	Establish Turf / Erosion Control		2%	\$	14,596
✓	Basic Landscaping		4%	\$	29,192
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 397,649
Paving and Allowance Subtotal:					\$ 1,127,458
Construction Contingency:					15% \$ 169,119
Construction Cost TOTAL:					\$ 1,297,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,297,000
Engineering/Survey/Testing:		20%	\$ 259,400
Mobilization		5%	\$ 64,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 259,400
Impact Fee Project Cost TOTAL:			\$ 1,881,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-5
Name:	Columbus Trail (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commerce/mixed use street.</b>		
Limits:	Old Granbury to Brewer (Future)			
Impact Fee Class:	CMU-L2-T0-TWLT-P0-BLC (110)			
Ultimate Class:	5 Lane Undivided Commerce/Mixed-Use Street			
Length (lf):	840			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
127	Unclassified Street Excavation	3,313	cy	\$ 17.00	\$ 56,327
227	6" Lime Stabilization (with Lime @ 32#/sy)	6,533	sy	\$ 4.00	\$ 26,133
327	11" Concrete Pavement	6,347	sy	\$ 55.00	\$ 349,067
427	6" Curb and Gutter	1,680	lf	\$ 7.00	\$ 11,760
527	4" Topsoil	2,800	sy	\$ 5.00	\$ 14,000
627	6' Concrete Sidewalk	10,080	sf	\$ 6.00	\$ 60,480
725	Auxiliary Lanes and Median Openings Allotment	143	sf	\$ 59.00	\$ 8,448
Paving Construction Cost Subtotal:					\$ 526,214
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	15,786
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	15,786
✓	Pavement Markings/Markers		3%	\$	15,786
✓	Roadway Drainage	Standard Internal System	30%	\$	157,864
✓	Illumination		2%	\$	13,085
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	31,573
✓	Sewer	Minor Adjustments	4%	\$	21,049
✓	Establish Turf / Erosion Control		2%	\$	10,524
✓	Basic Landscaping		4%	\$	21,049
✓	Other:	Railroad Crossing	\$500,000	\$	500,000.00
Allowance Subtotal:					\$ 802,503
Paving and Allowance Subtotal:					\$ 1,328,718
Construction Contingency: 15%					\$ 124,308
Construction Cost TOTAL:					\$ 1,454,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,454,000
Engineering/Survey/Testing:		20%	\$ 290,800
Mobilization		5%	\$ 72,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 145,400
Impact Fee Project Cost TOTAL:			\$ 1,963,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-6
Name:	Sycamore School (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector.</b>		
Limits:	Brewer (Future) to Chisholm Trail			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	730			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	2,190	cy	\$ 17.00	\$ 37,230
223	6" Lime Stabilization (with Lime @ 32#/sy)	4,218	sy	\$ 4.00	\$ 16,871
323	11" Concrete Pavement	3,893	sy	\$ 55.00	\$ 214,133
423	6" Curb and Gutter	2,920	lf	\$ 7.00	\$ 20,440
523	4" Topsoil	3,407	sy	\$ 5.00	\$ 17,033
623	10' Concrete Sidewalk	14,600	sf	\$ 6.00	\$ 87,600
721	Auxiliary Lanes and Median Openings Allotment	293	sf	\$ 59.00	\$ 17,293
Paving Construction Cost Subtotal:					\$ 410,601
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	12,318
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	12,318
✓	Pavement Markings/Markers		3%	\$	12,318
✓	Roadway Drainage	Standard Internal System	30%	\$	123,180
✓	Illumination		2%	\$	10,210
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	24,636
✓	Sewer	Minor Adjustments	4%	\$	16,424
✓	Establish Turf / Erosion Control		2%	\$	8,212
✓	Basic Landscaping		4%	\$	16,424
	Other:				
Allowance Subtotal:					\$ 236,041
Paving and Allowance Subtotal:					\$ 646,642
Construction Contingency:					15% \$ 96,996
Construction Cost TOTAL:					\$ 744,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 744,000
Engineering/Survey/Testing:		20%	\$ 148,800
Mobilization		5%	\$ 37,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 74,400
Impact Fee Project Cost TOTAL:			\$ 1,004,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	Y-7
Name:	Sycamore School (2)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector. The City contributed \$939,172 overall to this project. This segment accounts for 19% (\$182,692) of the overall project.</b>		
Limits:	Summer Creek to Creek Meadows			
Impact Fee Class:	CCO (E)			
Ultimate Class:	Established Commercial Connector			
Length (lf):	675			
Service Area(s):	Y			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 181,038
Engineering/Survey/Testing:			\$ 1,653
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 182,692</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-8
Name:	Risinger (1)	<b>This project consists of the construction of the northern lanes to complete the four-lane divided system link.</b>		
Limits:	760' E of McCart to Poynter			
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided System Link			
Length (lf):	1,495			
Service Area(s):	Y			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
138	Unclassified Street Excavation	2,243	cy	\$ 17.00	\$ 38,123
238	6" Lime Stabilization (with Lime @ 32#/sy)	4,319	sy	\$ 4.00	\$ 17,276
338	11" Concrete Pavement	3,987	sy	\$ 55.00	\$ 219,267
438	6" Curb and Gutter	2,990	lf	\$ 7.00	\$ 20,930
538	4" Topsoil	3,654	sy	\$ 5.00	\$ 18,272
638	10' Concrete Sidewalk	14,950	sf	\$ 6.00	\$ 89,700
736	Auxiliary Lanes and Median Openings Allotment	255	sf	\$ 59.00	\$ 15,035

**Paving Construction Cost Subtotal: \$ 418,602**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 12,558
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 12,558
✓ Pavement Markings/Markers		3%	\$ 12,558
✓ Roadway Drainage	Standard Internal System	30%	\$ 125,581
✓ Illumination		2%	\$ 10,409
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 25,116
✓ Sewer	Minor Adjustments	4%	\$ 16,744
✓ Establish Turf / Erosion Control		2%	\$ 8,372
✓ Basic Landscaping		4%	\$ 16,744
Other:		\$0	\$ -

**Allowance Subtotal: \$ 240,640**

**Paving and Allowance Subtotal: \$ 659,242**

**Construction Contingency: 15% \$ 98,886**

**Construction Cost TOTAL: \$ 759,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 759,000
Engineering/Survey/Testing:		20%	\$ 151,800
Mobilization		5%	\$ 37,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 75,900

**Impact Fee Project Cost TOTAL: \$ 1,025,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-9
Name:	Risinger (2)	<b>This project consists of the construction of a new four-lane divided system link.</b>		
Limits:	Poynter to 275' E of Carolina			
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided System Link			
Length (lf):	2,055			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
137	Unclassified Street Excavation	6,165	cy	\$ 17.00	\$ 104,805
237	6" Lime Stabilization (with Lime @ 32#/sy)	11,873	sy	\$ 4.00	\$ 47,493
337	11" Concrete Pavement	10,960	sy	\$ 55.00	\$ 602,800
437	6" Curb and Gutter	8,220	lf	\$ 7.00	\$ 57,540
537	4" Topsoil	10,047	sy	\$ 5.00	\$ 50,233
637	10' Concrete Sidewalk	41,100	sf	\$ 6.00	\$ 246,600
735	Auxiliary Lanes and Median Openings Allotment	825	sf	\$ 59.00	\$ 48,682
Paving Construction Cost Subtotal:					\$ 1,158,153
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	34,745
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	34,745
✓	Roadway Drainage	Standard Internal System	30%	\$	347,446
✓	Illumination		2%	\$	28,799
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	69,489
✓	Sewer	Minor Adjustments	4%	\$	46,326
✓	Establish Turf / Erosion Control		2%	\$	23,163
✓	Basic Landscaping		4%	\$	46,326
	Other:		\$ -	\$	-
Allowance Subtotal:					\$ 631,039
Paving and Allowance Subtotal:					\$ 1,789,193
Construction Contingency: 15%					\$ 268,379
Construction Cost TOTAL:					\$ 2,058,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,058,000
Engineering/Survey/Testing:		20%	\$ 411,600
Mobilization		5%	\$ 102,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 411,600
Impact Fee Project Cost TOTAL:			\$ 2,984,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-10
Name:	Risinger (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided system link.</b>	
Limits:	275' E of Carolina to FM 731		
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided System Link		
Length (lf):	2,375		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
137	Unclassified Street Excavation	7,125	cy	\$ 17.00	\$ 121,125
237	6" Lime Stabilization (with Lime @ 32#/sy)	13,722	sy	\$ 4.00	\$ 54,889
337	11" Concrete Pavement	12,667	sy	\$ 55.00	\$ 696,667
437	6" Curb and Gutter	9,500	lf	\$ 7.00	\$ 66,500
537	4" Topsoil	11,611	sy	\$ 5.00	\$ 58,056
637	10' Concrete Sidewalk	47,500	sf	\$ 6.00	\$ 285,000
735	Auxiliary Lanes and Median Openings Allotment	954	sf	\$ 59.00	\$ 56,262
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,338,498</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	40,155
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	40,155
✓	Pavement Markings/Markers		3%	\$	40,155
✓	Roadway Drainage	Standard Internal System	30%	\$	401,550
✓	Illumination		2%	\$	33,284
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	80,310
✓	Sewer	Minor Adjustments	4%	\$	53,540
✓	Establish Turf / Erosion Control		2%	\$	26,770
✓	Basic Landscaping		4%	\$	53,540
✓	Other:	Railroad Crossing	\$500,000	\$	500,000
<b>Allowance Subtotal:</b>					<b>\$ 1,269,458</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 2,607,957</b>
<b>Construction Contingency:</b>					<b>15% \$ 316,193</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 2,925,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	<b>\$ 2,925,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 585,000
<b>Mobilization</b>		5%	\$ 146,250
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 292,500
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,949,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-11
Name:	McPherson (1)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided commercial connector.</b>		
Limits:	Risinger to 795' E of Risinger			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	795			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	1,193	cy	\$ 17.00	\$ 20,273
224	6" Lime Stabilization (with Lime @ 32#/sy)	2,297	sy	\$ 4.00	\$ 9,187
324	11" Concrete Pavement	2,120	sy	\$ 55.00	\$ 116,600
424	6" Curb and Gutter	1,590	lf	\$ 7.00	\$ 11,130
524	4" Topsoil	1,855	sy	\$ 5.00	\$ 9,275
624	10' Concrete Sidewalk	7,950	sf	\$ 6.00	\$ 47,700
722	Auxiliary Lanes and Median Openings Allotment	319	sf	\$ 59.00	\$ 18,833
Paving Construction Cost Subtotal:					\$ 232,997
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	6,990
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	6,990
✓	Pavement Markings/Markers		3%	\$	6,990
✓	Roadway Drainage	Standard Internal System	30%	\$	69,899
✓	Illumination		2%	\$	5,794
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	13,980
✓	Sewer	Minor Adjustments	4%	\$	9,320
✓	Establish Turf / Erosion Control		2%	\$	4,660
✓	Basic Landscaping		4%	\$	9,320
	Other:				
Allowance Subtotal:					\$ 133,942
Paving and Allowance Subtotal:					\$ 366,940
Construction Contingency:					15% \$ 55,041
Construction Cost TOTAL:					\$ 422,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 422,000
Engineering/Survey/Testing:		20%	\$ 84,400
Mobilization		5%	\$ 21,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 42,200
Impact Fee Project Cost TOTAL:			\$ 570,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-12
Name:	McPherson (2)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided commercial connector.</b>		
Limits:	795' E of Risinger to Chisholm Trail SBFR			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	4,725			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	7,088	cy	\$ 17.00	\$ 120,488
224	6" Lime Stabilization (with Lime @ 32#/sy)	13,650	sy	\$ 4.00	\$ 54,600
324	11" Concrete Pavement	12,600	sy	\$ 55.00	\$ 693,000
424	6" Curb and Gutter	9,450	lf	\$ 7.00	\$ 66,150
524	4" Topsoil	11,025	sy	\$ 5.00	\$ 55,125
624	10' Concrete Sidewalk	47,250	sf	\$ 6.00	\$ 283,500
722	Auxiliary Lanes and Median Openings Allotment	1,897	sf	\$ 59.00	\$ 111,932
Paving Construction Cost Subtotal:					\$ 1,384,795
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	41,544
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	41,544
✓	Pavement Markings/Markers		3%	\$	41,544
✓	Roadway Drainage	Standard Internal System	30%	\$	415,438
✓	Illumination		2%	\$	34,435
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	83,088
✓	Sewer	Minor Adjustments	4%	\$	55,392
✓	Establish Turf / Erosion Control		2%	\$	27,696
✓	Basic Landscaping		4%	\$	55,392
	Other:				
Allowance Subtotal:					\$ 796,072
Paving and Allowance Subtotal:					\$ 2,180,867
Construction Contingency:					15% \$ 327,130
Construction Cost TOTAL:					\$ 2,508,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,508,000
Engineering/Survey/Testing:		20%	\$ 501,600
Mobilization		5%	\$ 125,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 250,800
Impact Fee Project Cost TOTAL:			\$ 3,386,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	Y-13
Name:	McPherson (3)	<b>This project consisted of the reconstruction of the existing asphalt lanes to a four-lane divided neighborhood connector. The City contributed \$4,848,329 overall to this project. This segment accounts for 28% (\$1,357,532) of the overall project.</b>		
Limits:	Summer Creek to Willow Branch			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	2,240			
Service Area(s):	Y			

**Roadway Construction Cost Projection**

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:	Transportation Impact Fees Legacy Fund		\$ 1,257,202
Engineering/Survey/Testing:			\$ 249,161
Previous City contribution			\$ (189,399)
ROW/Easement Acquisition:			\$ 40,568
Impact Fee Project Cost TOTAL:			\$ 1,357,532

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-14
Name:	McPherson (4)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	Cleburne to 3970' E of Cleburne		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	3,970		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	11,469	cy	\$ 17.00	\$ 194,971
228	6" Lime Stabilization (with Lime @ 32#/sy)	22,056	sy	\$ 4.00	\$ 88,222
328	11" Concrete Pavement	20,291	sy	\$ 55.00	\$ 1,116,011
428	6" Curb and Gutter	15,880	lf	\$ 7.00	\$ 111,160
528	4" Topsoil	18,527	sy	\$ 5.00	\$ 92,633
628	11' Concrete Sidewalk	87,340	sf	\$ 6.00	\$ 524,040
726	Auxiliary Lanes and Median Openings Allotment	1,594	sf	\$ 59.00	\$ 94,047
Paving Construction Cost Subtotal:					\$ 2,221,085
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	66,633
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	66,633
✓	Roadway Drainage		30%	\$	666,325
✓	Illumination		2%	\$	55,231
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	133,265
✓	Sewer	Minor Adjustments	4%	\$	88,843
✓	Establish Turf / Erosion Control		2%	\$	44,422
✓	Basic Landscaping		4%	\$	88,843
	Other:				
Allowance Subtotal:					\$ 1,210,195
Paving and Allowance Subtotal:					\$ 3,431,280
Construction Contingency: 15%					\$ 514,692
Construction Cost TOTAL:					\$ 3,946,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,946,000
Engineering/Survey/Testing:		20%	\$ 789,200
Mobilization		5%	\$ 197,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 789,200
Impact Fee Project Cost TOTAL:			\$ 5,722,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-15
Name:	Stewart Feltz (1)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>	
Limits:	Brewer to Chisholm Trail		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	1,820		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	6,168	cy	\$ 17.00	\$ 104,852
225	6" Lime Stabilization (with Lime @ 32#/sy)	12,133	sy	\$ 4.00	\$ 48,533
325	11" Concrete Pavement	11,729	sy	\$ 55.00	\$ 645,089
425	6" Curb and Gutter	3,640	lf	\$ 7.00	\$ 25,480
525	4" Topsoil	6,471	sy	\$ 5.00	\$ 32,356
625	10' Concrete Sidewalk	36,400	sf	\$ 6.00	\$ 218,400
723	Auxiliary Lanes and Median Openings Allotment	310	sf	\$ 59.00	\$ 18,303
Paving Construction Cost Subtotal:					\$ 1,093,013
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	32,790
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	32,790
✓	Roadway Drainage	Standard Internal System	30%	\$	327,904
✓	Illumination		2%	\$	27,180
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	65,581
✓	Sewer	Minor Adjustments	4%	\$	43,721
✓	Establish Turf / Erosion Control		2%	\$	21,860
✓	Basic Landscaping		4%	\$	43,721
	Other:				
Allowance Subtotal:					\$ 595,547
Paving and Allowance Subtotal:					\$ 1,688,560
Construction Contingency: 15%					\$ 253,284
Construction Cost TOTAL:					\$ 1,942,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,942,000
Engineering/Survey/Testing:		20%	\$ 388,400
Mobilization		5%	\$ 97,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 388,400
Impact Fee Project Cost TOTAL:			\$ 2,816,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-16
Name:	Stewart Feltz (2)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>	
Limits:	Chisholm Trail to Cleburne Crowley		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	1,195		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	4,050	cy	\$ 17.00	\$ 68,845
225	6" Lime Stabilization (with Lime @ 32#/sy)	7,967	sy	\$ 4.00	\$ 31,867
325	11" Concrete Pavement	7,701	sy	\$ 55.00	\$ 423,561
425	6" Curb and Gutter	2,390	lf	\$ 7.00	\$ 16,730
525	4" Topsoil	4,249	sy	\$ 5.00	\$ 21,244
625	10' Concrete Sidewalk	23,900	sf	\$ 6.00	\$ 143,400
723	Auxiliary Lanes and Median Openings Allotment	204	sf	\$ 59.00	\$ 12,018
Paving Construction Cost Subtotal:					\$ 717,665
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	21,530
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	21,530
✓	Roadway Drainage		30%	\$	215,300
✓	Illumination		2%	\$	17,846
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	43,060
✓	Sewer	Minor Adjustments	4%	\$	28,707
✓	Establish Turf / Erosion Control		2%	\$	14,353
✓	Basic Landscaping		4%	\$	28,707
	Other:				
Allowance Subtotal:					\$ 391,032
Paving and Allowance Subtotal:					\$ 1,108,697
Construction Contingency: 15%					\$ 166,305
Construction Cost TOTAL:					\$ 1,276,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,276,000
Engineering/Survey/Testing:		20%	\$ 255,200
Mobilization		5%	\$ 63,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 255,200
Impact Fee Project Cost TOTAL:			\$ 1,850,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-17
Name:	Summer Creek (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector.</b>		
Limits:	2,515' S of Stewart Feltz (Future) to 3,055' S of Stewart Feltz (Future)			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	540			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	1,830	cy	\$ 17.00	\$ 31,110
225	6" Lime Stabilization (with Lime @ 32#/sy)	3,600	sy	\$ 4.00	\$ 14,400
325	11" Concrete Pavement	3,480	sy	\$ 55.00	\$ 191,400
425	6" Curb and Gutter	1,080	lf	\$ 7.00	\$ 7,560
525	4" Topsoil	1,920	sy	\$ 5.00	\$ 9,600
625	10' Concrete Sidewalk	10,800	sf	\$ 6.00	\$ 64,800
723	Auxiliary Lanes and Median Openings Allotment	92	sf	\$ 59.00	\$ 5,431
Paving Construction Cost Subtotal:					\$ 324,301
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	9,729
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	9,729
✓	Pavement Markings/Markers		3%	\$	9,729
✓	Roadway Drainage	Standard Internal System	30%	\$	97,290
✓	Illumination		2%	\$	8,064
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	19,458
✓	Sewer	Minor Adjustments	4%	\$	12,972
✓	Establish Turf / Erosion Control		2%	\$	6,486
✓	Basic Landscaping		4%	\$	12,972
	Other:				
Allowance Subtotal:					\$ 186,430
Paving and Allowance Subtotal:					\$ 510,730
Construction Contingency:					15% \$ 76,610
Construction Cost TOTAL:					\$ 588,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 588,000
Engineering/Survey/Testing:		20%	\$ 117,600
Mobilization		5%	\$ 29,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 58,800
Impact Fee Project Cost TOTAL:			\$ 794,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-18
Name:	Summer Creek (2)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>		
Limits:	Stewart Feltz (Future) to 2,515' S of Stewart Feltz			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	2,515			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	8,523	cy	\$ 17.00	\$ 144,892
225	6" Lime Stabilization (with Lime @ 32#/sy)	16,767	sy	\$ 4.00	\$ 67,067
325	11" Concrete Pavement	16,208	sy	\$ 55.00	\$ 891,428
425	6" Curb and Gutter	5,030	lf	\$ 7.00	\$ 35,210
525	4" Topsoil	8,942	sy	\$ 5.00	\$ 44,711
625	10' Concrete Sidewalk	50,300	sf	\$ 6.00	\$ 301,800
723	Auxiliary Lanes and Median Openings Allotment	429	sf	\$ 59.00	\$ 25,293
Paving Construction Cost Subtotal:					\$ 1,510,400
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	45,312
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	45,312
✓	Roadway Drainage	Standard Internal System	30%	\$	453,120
✓	Illumination		2%	\$	37,559
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	90,624
✓	Sewer	Minor Adjustments	4%	\$	60,416
✓	Establish Turf / Erosion Control		2%	\$	30,208
✓	Basic Landscaping		4%	\$	60,416
	Other:				
Allowance Subtotal:					\$ 822,967
Paving and Allowance Subtotal:					\$ 2,333,367
Construction Contingency: 15%					\$ 350,005
Construction Cost TOTAL:					\$ 2,684,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,684,000
Engineering/Survey/Testing:		20%	\$ 536,800
Mobilization		5%	\$ 134,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 536,800
Impact Fee Project Cost TOTAL:			\$ 3,892,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-19
Name:	Cleburne Crowley (1)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>		
Limits:	Stewart Feltz (Future) to Cleburne Crowley (Existing)			
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Commercial Connector			
Length (lf):	4,050			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	13,725	cy	\$ 17.00	\$ 233,325
225	6" Lime Stabilization (with Lime @ 32#/sy)	27,000	sy	\$ 4.00	\$ 108,000
325	11" Concrete Pavement	26,100	sy	\$ 55.00	\$ 1,435,500
425	6" Curb and Gutter	8,100	lf	\$ 7.00	\$ 56,700
525	4" Topsoil	14,400	sy	\$ 5.00	\$ 72,000
625	10' Concrete Sidewalk	81,000	sf	\$ 6.00	\$ 486,000
723	Auxiliary Lanes and Median Openings Allotment	690	sf	\$ 59.00	\$ 40,730
Paving Construction Cost Subtotal:					\$ 2,432,255
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	72,968
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	72,968
✓	Roadway Drainage		30%	\$	729,677
✓	Illumination		2%	\$	60,482
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	145,935
✓	Sewer	Minor Adjustments	4%	\$	97,290
✓	Establish Turf / Erosion Control		2%	\$	48,645
✓	Basic Landscaping		4%	\$	97,290
	Other:				
Allowance Subtotal:					\$ 1,325,255
Paving and Allowance Subtotal:					\$ 3,757,510
Construction Contingency:					15% \$ 563,626
Construction Cost TOTAL:					\$ 4,322,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,322,000
Engineering/Survey/Testing:		20%	\$ 864,400
Mobilization		5%	\$ 216,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 864,400
Impact Fee Project Cost TOTAL:			\$ 6,267,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-20
Name:	Cleburne Crowley (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>		
Limits:	Cleburne Crowley (Existing) to 480' W of Cleburne			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	1,155			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	3,786	cy	\$ 17.00	\$ 64,359
233	6" Lime Stabilization (with Lime @ 32#/sy)	7,443	sy	\$ 4.00	\$ 29,773
333	11" Concrete Pavement	7,187	sy	\$ 55.00	\$ 395,267
433	6" Curb and Gutter	2,310	lf	\$ 7.00	\$ 16,170
533	4" Topsoil	4,363	sy	\$ 5.00	\$ 21,817
633	10' Concrete Sidewalk	23,100	sf	\$ 6.00	\$ 138,600
731	Auxiliary Lanes and Median Openings Allotment	197	sf	\$ 59.00	\$ 11,616
Paving Construction Cost Subtotal:					\$ 677,601
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	20,328
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	20,328
✓	Pavement Markings/Markers		3%	\$	20,328
✓	Roadway Drainage	Standard Internal System	30%	\$	203,280
✓	Illumination		2%	\$	16,850
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	40,656
✓	Sewer	Minor Adjustments	4%	\$	27,104
✓	Establish Turf / Erosion Control		2%	\$	13,552
✓	Basic Landscaping		4%	\$	27,104
	Other:				
Allowance Subtotal:					\$ 389,530
Paving and Allowance Subtotal:					\$ 1,067,132
Construction Contingency: 15%					\$ 160,070
Construction Cost TOTAL:					\$ 1,228,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,228,000
Engineering/Survey/Testing:		20%	\$ 245,600
Mobilization		5%	\$ 61,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 122,800
Impact Fee Project Cost TOTAL:			\$ 1,658,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-21
Name:	Cleburne Crowley (3)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
Limits:	480' W of Cleburne to Cleburne		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	480		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	1,573	cy	\$ 17.00	\$ 26,747
233	6" Lime Stabilization (with Lime @ 32#/sy)	3,093	sy	\$ 4.00	\$ 12,373
333	11" Concrete Pavement	2,987	sy	\$ 55.00	\$ 164,267
433	6" Curb and Gutter	960	lf	\$ 7.00	\$ 6,720
533	4" Topsoil	1,813	sy	\$ 5.00	\$ 9,067
633	10' Concrete Sidewalk	9,600	sf	\$ 6.00	\$ 57,600
731	Auxiliary Lanes and Median Openings Allotment	82	sf	\$ 59.00	\$ 4,827
Paving Construction Cost Subtotal:					\$ 281,601
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	8,448
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	8,448
✓	Pavement Markings/Markers		3%	\$	8,448
✓	Roadway Drainage	Standard Internal System	30%	\$	84,480
✓	Illumination		2%	\$	7,002
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	16,896
✓	Sewer	Minor Adjustments	4%	\$	11,264
✓	Establish Turf / Erosion Control		2%	\$	5,632
✓	Basic Landscaping		4%	\$	11,264
	Other:				
Allowance Subtotal:					\$ 161,883
Paving and Allowance Subtotal:					\$ 443,483
Construction Contingency: 15%					\$ 66,523
Construction Cost TOTAL:					\$ 511,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 511,000
Engineering/Survey/Testing:		20%	\$ 102,200
Mobilization		5%	\$ 25,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 51,100
Impact Fee Project Cost TOTAL:			\$ 690,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-22
Name:	Cleburne Crowley (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>	
Limits:	Cleburne to 945' E of Cleburne		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	945		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	1,943	cy	\$ 17.00	\$ 33,023
241	6" Lime Stabilization (with Lime @ 32#/sy)	3,780	sy	\$ 4.00	\$ 15,120
341	11" Concrete Pavement	3,570	sy	\$ 55.00	\$ 196,350
441	6" Curb and Gutter	1,890	lf	\$ 7.00	\$ 13,230
541	4" Topsoil	2,730	sy	\$ 5.00	\$ 13,650
641	10' Concrete Sidewalk	18,900	sf	\$ 6.00	\$ 113,400
739	Auxiliary Lanes and Median Openings Allotment	161	sf	\$ 59.00	\$ 9,504
Paving Construction Cost Subtotal:					\$ 394,276
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	11,828
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	11,828
✓	Pavement Markings/Markers		3%	\$	11,828
✓	Roadway Drainage	Standard Internal System	30%	\$	118,283
✓	Illumination		2%	\$	9,804
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	23,657
✓	Sewer	Minor Adjustments	4%	\$	15,771
✓	Establish Turf / Erosion Control		2%	\$	7,886
✓	Basic Landscaping		4%	\$	15,771
	Other:				
Allowance Subtotal:					\$ 226,656
Paving and Allowance Subtotal:					\$ 620,932
Construction Contingency: 15%					\$ 93,140
Construction Cost TOTAL:					\$ 715,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 715,000
Engineering/Survey/Testing:		20%	\$ 143,000
Mobilization		5%	\$ 35,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 71,500
Impact Fee Project Cost TOTAL:			\$ 965,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. W-5, Y-23
Name:	Bryant Irvin (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	Altamesa to 2,280' S of Altamesa		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,280		
Service Area(s):	Y, W		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	6,587	cy	\$ 17.00	\$ 111,973
230	6" Lime Stabilization (with Lime @ 32#/sy)	12,667	sy	\$ 4.00	\$ 50,667
330	11" Concrete Pavement	11,653	sy	\$ 55.00	\$ 640,933
430	6" Curb and Gutter	9,120	lf	\$ 7.00	\$ 63,840
530	4" Topsoil	11,147	sy	\$ 5.00	\$ 55,733
630	10' Concrete Sidewalk	45,600	sf	\$ 6.00	\$ 273,600
728	Auxiliary Lanes and Median Openings Allotment	915	sf	\$ 59.00	\$ 54,012
Paving Construction Cost Subtotal:					\$ 1,250,758
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	37,523
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	37,523
✓	Roadway Drainage		30%	\$	375,228
✓	Illumination		2%	\$	31,102
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	75,046
✓	Sewer	Minor Adjustments	4%	\$	50,030
✓	Establish Turf / Erosion Control		2%	\$	25,015
✓	Basic Landscaping		4%	\$	50,030
	Other:				
Allowance Subtotal:					\$ 681,497
Paving and Allowance Subtotal:					\$ 1,932,255
Construction Contingency:					15% \$ 289,838
Construction Cost TOTAL:					\$ 2,223,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,223,000
Engineering/Survey/Testing:		20%	\$ 444,600
Mobilization		5%	\$ 111,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 444,600
Impact Fee Project Cost TOTAL:			\$ 3,223,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-24
Name:	Bryant Irvin (2)	<b>This project consists of the construction of a new five-lane undivided commerce/mixed-use street.</b>	
Limits:	2,280' S of Altamesa to Columbus (Future)		
Impact Fee Class:	CMU-L2-T0-TWLT-P0-BLC (110)		
Ultimate Class:	5 Lane Undivided Commerce/Mixed-Use Street		
Length (lf):	4,355		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
127	Unclassified Street Excavation	17,178	cy	\$ 17.00	\$ 292,027
227	6" Lime Stabilization (with Lime @ 32#/sy)	33,872	sy	\$ 4.00	\$ 135,489
327	11" Concrete Pavement	32,904	sy	\$ 55.00	\$ 1,809,744
427	6" Curb and Gutter	8,710	lf	\$ 7.00	\$ 60,970
527	4" Topsoil	14,517	sy	\$ 5.00	\$ 72,583
627	6' Concrete Sidewalk	52,260	sf	\$ 6.00	\$ 313,560
725	Auxiliary Lanes and Median Openings Allotment	742	sf	\$ 59.00	\$ 43,797
Paving Construction Cost Subtotal:					\$ 2,728,171
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	81,845
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	81,845
✓	Roadway Drainage		30%	\$	818,451
✓	Illumination		2%	\$	67,841
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	163,690
✓	Sewer	Minor Adjustments	4%	\$	109,127
✓	Establish Turf / Erosion Control		2%	\$	54,563
✓	Basic Landscaping		4%	\$	109,127
	Other:				
Allowance Subtotal:					\$ 1,486,489
Paving and Allowance Subtotal:					\$ 4,214,661
Construction Contingency: 15%					\$ 632,199
Construction Cost TOTAL:					\$ 4,847,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,847,000
Engineering/Survey/Testing:		20%	\$ 969,400
Mobilization		5%	\$ 242,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 969,400
Impact Fee Project Cost TOTAL:			\$ 7,028,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-25
Name:	Bryant Irvin (3)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
Limits:	Columbus Trail (Future) to McPherson		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	9,655		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	31,647	cy	\$ 17.00	\$ 537,998
233	6" Lime Stabilization (with Lime @ 32#/sy)	62,221	sy	\$ 4.00	\$ 248,884
333	11" Concrete Pavement	60,076	sy	\$ 55.00	\$ 3,304,156
433	6" Curb and Gutter	19,310	lf	\$ 7.00	\$ 135,170
533	4" Topsoil	36,474	sy	\$ 5.00	\$ 182,372
633	10' Concrete Sidewalk	193,100	sf	\$ 6.00	\$ 1,158,600
731	Auxiliary Lanes and Median Openings Allotment	1,646	sf	\$ 59.00	\$ 97,099
Paving Construction Cost Subtotal:					\$ 5,664,279
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	169,928
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	169,928
✓	Roadway Drainage		30%	\$	1,699,284
✓	Illumination		2%	\$	140,852
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	339,857
✓	Sewer	Minor Adjustments	4%	\$	226,571
✓	Establish Turf / Erosion Control		2%	\$	113,286
✓	Basic Landscaping		4%	\$	226,571
	Other:				
Allowance Subtotal:					\$ 3,086,277
Paving and Allowance Subtotal:					\$ 8,750,556
Construction Contingency: 15%					\$ 1,312,583
Construction Cost TOTAL:					\$ 10,064,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 10,064,000
Engineering/Survey/Testing:		20%	\$ 2,012,800
Mobilization		5%	\$ 503,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 2,012,800
Impact Fee Project Cost TOTAL:			\$ 14,593,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-26
Name:	Brewer (1)	<b>This project consists of the construction of a new five lane undivided commerce/mixed-use street.</b>	
Limits:	Columbus Trail to 2,740' S of Columbus Trail		
Impact Fee Class:	CMU-L2-T0-TWLT-P0-BLC (110)		
Ultimate Class:	5 Lane Undivided Commerce/Mixed-Use Street		
Length (lf):	2,740		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
127	Unclassified Street Excavation	10,808	cy	\$ 17.00	\$ 183,732
227	6" Lime Stabilization (with Lime @ 32#/sy)	21,311	sy	\$ 4.00	\$ 85,244
327	11" Concrete Pavement	20,702	sy	\$ 55.00	\$ 1,138,622
427	6" Curb and Gutter	5,480	lf	\$ 7.00	\$ 38,360
527	4" Topsoil	9,133	sy	\$ 5.00	\$ 45,667
627	6' Concrete Sidewalk	32,880	sf	\$ 6.00	\$ 197,280
725	Auxiliary Lanes and Median Openings Allotment	467	sf	\$ 59.00	\$ 27,556
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 1,716,461</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	51,494
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	51,494
✓	Roadway Drainage		30%	\$	514,938
✓	Illumination		2%	\$	42,683
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	102,988
✓	Sewer	Minor Adjustments	4%	\$	68,658
✓	Establish Turf / Erosion Control		2%	\$	34,329
✓	Basic Landscaping		4%	\$	68,658
	Other:				
<b>Allowance Subtotal:</b>					<b>\$ 935,243</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 2,651,704</b>
<b>Construction Contingency:</b>					<b>15% \$ 397,756</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 3,050,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 3,050,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 610,000
<b>Mobilization</b>		5%	\$ 152,500
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 610,000
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 4,423,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
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Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-27
Name:	Brewer (2)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	Risinger to Rockrose			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	2,500			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	7,500	cy	\$ 17.00	\$ 127,500
223	6" Lime Stabilization (with Lime @ 32#/sy)	14,444	sy	\$ 4.00	\$ 57,778
323	11" Concrete Pavement	13,333	sy	\$ 55.00	\$ 733,333
423	6" Curb and Gutter	10,000	lf	\$ 7.00	\$ 70,000
523	4" Topsoil	11,667	sy	\$ 5.00	\$ 58,333
623	10' Concrete Sidewalk	50,000	sf	\$ 6.00	\$ 300,000
721	Auxiliary Lanes and Median Openings Allotment	1,004	sf	\$ 59.00	\$ 59,223
Paving Construction Cost Subtotal:					\$ 1,406,168
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	42,185
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	42,185
✓	Roadway Drainage		30%	\$	421,850
✓	Illumination		2%	\$	34,967
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	84,370
✓	Sewer	Minor Adjustments	4%	\$	56,247
✓	Establish Turf / Erosion Control		2%	\$	28,123
✓	Basic Landscaping		4%	\$	56,247
	Other:				
Allowance Subtotal:					\$ 766,174
Paving and Allowance Subtotal:					\$ 2,172,342
Construction Contingency:					15% \$ 325,851
Construction Cost TOTAL:					\$ 2,499,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,499,000
Engineering/Survey/Testing:		20%	\$ 499,800
Mobilization		5%	\$ 124,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 499,800
Impact Fee Project Cost TOTAL:			\$ 3,624,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-28
Name:	Brewer (3)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided commercial connector. The City previously contributed \$246,000 to the construction and design of the western lanes.</b>	
Limits:	Rockrose to McPherson		
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Commercial Connector		
Length (lf):	855		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	1,283	cy	\$ 17.00	\$ 21,803
224	6" Lime Stabilization (with Lime @ 32#/sy)	2,470	sy	\$ 4.00	\$ 9,880
324	11" Concrete Pavement	2,280	sy	\$ 55.00	\$ 125,400
424	6" Curb and Gutter	1,710	lf	\$ 7.00	\$ 11,970
524	4" Topsoil	1,995	sy	\$ 5.00	\$ 9,975
624	10' Concrete Sidewalk	8,550	sf	\$ 6.00	\$ 51,300
722	Auxiliary Lanes and Median Openings Allotment	343	sf	\$ 59.00	\$ 20,254
Paving Construction Cost Subtotal:					\$ 250,582
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	7,517
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	7,517
✓	Pavement Markings/Markers		3%	\$	7,517
✓	Roadway Drainage	Standard Internal System	30%	\$	75,175
✓	Illumination		2%	\$	6,231
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	15,035
✓	Sewer	Minor Adjustments	4%	\$	10,023
✓	Establish Turf / Erosion Control		2%	\$	5,012
✓	Basic Landscaping		4%	\$	10,023
	Other:				
Allowance Subtotal:					\$ 144,051
Paving and Allowance Subtotal:					\$ 394,633
Construction Contingency: 15%					\$ 59,195
Construction Cost TOTAL:					\$ 454,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 454,000
Engineering/Survey/Testing:		20%	\$ 90,800
Mobilization		5%	\$ 22,700
Previous City contribution	2014 Bond Program		\$ 246,000
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 45,400
Impact Fee Project Cost TOTAL:			\$ 859,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-29
Name:	Brewer (4)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	Mcpherson to Stewart Feltz (Future)			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	10,580			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	30,564	cy	\$ 17.00	\$ 519,596
230	6" Lime Stabilization (with Lime @ 32#/sy)	58,778	sy	\$ 4.00	\$ 235,111
330	11" Concrete Pavement	54,076	sy	\$ 55.00	\$ 2,974,156
430	6" Curb and Gutter	42,320	lf	\$ 7.00	\$ 296,240
530	4" Topsoil	51,724	sy	\$ 5.00	\$ 258,622
630	10' Concrete Sidewalk	211,600	sf	\$ 6.00	\$ 1,269,600
728	Auxiliary Lanes and Median Openings Allotment	4,248	sf	\$ 59.00	\$ 250,634
<b>Paving Construction Cost Subtotal:</b>					<b>\$ 5,803,958</b>
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	174,119
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	174,119
✓	Roadway Drainage	Standard Internal System	30%	\$	1,741,187
✓	Illumination		2%	\$	144,325
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	348,237
✓	Sewer	Minor Adjustments	4%	\$	232,158
✓	Establish Turf / Erosion Control		2%	\$	116,079
✓	Basic Landscaping		4%	\$	232,158
	Other:				
<b>Allowance Subtotal:</b>					<b>\$ 3,162,383</b>
<b>Paving and Allowance Subtotal:</b>					<b>\$ 8,966,342</b>
<b>Construction Contingency:</b>					<b>15% \$ 1,344,951</b>
<b>Construction Cost TOTAL:</b>					<b>\$ 10,312,000</b>

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 10,312,000
Engineering/Survey/Testing:		20%	\$ 2,062,400
Mobilization		5%	\$ 515,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 2,062,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 14,952,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
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Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-30
Name:	Brewer (5)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>		
Limits:	Stewart Feltz (Future) to 4,935' S of Stewart Feltz			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	4,935			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	10,144	cy	\$ 17.00	\$ 172,451
241	6" Lime Stabilization (with Lime @ 32#/sy)	19,740	sy	\$ 4.00	\$ 78,960
341	11" Concrete Pavement	18,643	sy	\$ 55.00	\$ 1,025,383
441	6" Curb and Gutter	9,870	lf	\$ 7.00	\$ 69,090
541	4" Topsoil	14,257	sy	\$ 5.00	\$ 71,283
641	10' Concrete Sidewalk	98,700	sf	\$ 6.00	\$ 592,200
739	Auxiliary Lanes and Median Openings Allotment	841	sf	\$ 59.00	\$ 49,630
Paving Construction Cost Subtotal:					\$ 2,058,998
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	61,770
	Traffic Control	None Anticipated	0%	\$	-
✓	Pavement Markings/Markers		3%	\$	61,770
✓	Roadway Drainage	Standard Internal System	30%	\$	617,699
✓	Illumination		2%	\$	51,200
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	123,540
✓	Sewer	Minor Adjustments	4%	\$	82,360
✓	Establish Turf / Erosion Control		2%	\$	41,180
✓	Basic Landscaping		4%	\$	82,360
	Other:				
Allowance Subtotal:					\$ 1,121,879
Paving and Allowance Subtotal:					\$ 3,180,877
Construction Contingency: 15%					\$ 477,132
Construction Cost TOTAL:					\$ 3,659,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,659,000
Engineering/Survey/Testing:		20%	\$ 731,800
Mobilization		5%	\$ 182,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 731,800
Impact Fee Project Cost TOTAL:			\$ 5,306,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	Y-31
Name:	Granbury	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The City contributed \$1,807,652 overall to this project.</b>		
Limits:	445' S of Altamesa to 275' S of Mesa Springs			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	1,190			
Service Area(s):	Y			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 1,607,800
Engineering/Survey/Testing:			\$ 107,997
ROW/Easement Acquisition:			\$ 91,855
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,807,652</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*  
 updated: 9/29/2017

Project Information:		Description:	Project No.	Y-32
Name:	Granbury/Summer Creek	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector. The City contributed \$939,172 overall to this project. This segment accounts for 50% (\$465,526) of the overall project.</b>		
Limits:	Summer Meadows to Sycamore School			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	1,720			
Service Area(s):	Y			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 461,313
Engineering/Survey/Testing:			\$ 4,213
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 465,526</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	Y-33
Name:	Summer Creek (3)	<b>This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided commercial connector. The City contributed \$939,172 overall to this project. This segment accounts for 31% (\$290,954) of the overall project.</b>		
Limits:	Sycamore School to Columbus			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	1,075			
Service Area(s):	Y			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 288,320
Engineering/Survey/Testing:			\$ 2,633
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 290,954</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	Y-34
Name:	Summer Creek (4)	<b>This project consisted of the reconstruction of the existing asphalt lanes to a four-lane divided neighborhood connector. The City contributed \$4,848,329 overall to this project. This segment accounts for 28% (\$1,357,532) of the overall project.</b>		
Limits:	145' N of Summer Park to Risinger			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	2,240			
Service Area(s):	Y			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 1,257,202
Engineering/Survey/Testing:			\$ 249,161
Previous City contribution	Transportation Impact Fees Legacy Fund		\$ (189,399)
ROW/Easement Acquisition:			\$ 40,568
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,357,532</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted contruction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-35
Name:	Summer Creek (5)	<b>This project consisted of the reconstruction of the existing asphalt lanes to a four-lane divided neighborhood connector. The City contributed \$4,848,329 overall to this project. This segment accounts for 44% (\$2,133,265) of the overall project.</b>		
Limits:	Risinger to McPherson			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	3,490			
Service Area(s):	Y			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:			\$ 1,975,604
Engineering/Survey/Testing:			\$ 391,538
Previous City contribution	Transportation Impact Fees Legacy Fund		\$ (297,627)
ROW/Easement Acquisition:			\$ 63,750
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 2,133,265</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-36
Name:	Summer Creek (6)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided commercial connector.</b>		
Limits:	McPherson to Sunflower Ridge			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	2,350			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
122	Unclassified Street Excavation	4,178	cy	\$ 17.00	\$ 71,022
222	6" Lime Stabilization (with Lime @ 32#/sy)	8,094	sy	\$ 4.00	\$ 32,378
322	11" Concrete Pavement	7,572	sy	\$ 55.00	\$ 416,472
422	6" Curb and Gutter	4,700	lf	\$ 7.00	\$ 32,900
522	4" Topsoil	5,222	sy	\$ 5.00	\$ 26,111
622	6' Concrete Sidewalk	14,100	sf	\$ 6.00	\$ 84,600
720	Auxiliary Lanes and Median Openings Allotment	944	sf	\$ 59.00	\$ 55,670
Paving Construction Cost Subtotal:					\$ 719,153
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	21,575
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	21,575
✓	Pavement Markings/Markers		3%	\$	21,575
✓	Roadway Drainage	Standard Internal System	30%	\$	215,746
✓	Illumination		2%	\$	17,883
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	43,149
✓	Sewer	Minor Adjustments	4%	\$	28,766
✓	Establish Turf / Erosion Control		2%	\$	14,383
✓	Basic Landscaping		4%	\$	28,766
	Other:				
Allowance Subtotal:					\$ 413,417
Paving and Allowance Subtotal:					\$ 1,132,571
Construction Contingency: 15%					\$ 169,886
Construction Cost TOTAL:					\$ 1,303,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,303,000
Engineering/Survey/Testing:		20%	\$ 260,600
Mobilization		5%	\$ 65,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 130,300
Impact Fee Project Cost TOTAL:			\$ 1,759,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-37
Name:	Summer Creek (7)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	Sunflower Ridge to 710' N of Cleburne Crowley			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	4,300			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	12,422	cy	\$ 17.00	\$ 211,178
228	6" Lime Stabilization (with Lime @ 32#/sy)	23,889	sy	\$ 4.00	\$ 95,556
328	11" Concrete Pavement	21,978	sy	\$ 55.00	\$ 1,208,778
428	6" Curb and Gutter	17,200	lf	\$ 7.00	\$ 120,400
528	4" Topsoil	20,067	sy	\$ 5.00	\$ 100,333
628	11' Concrete Sidewalk	94,600	sf	\$ 6.00	\$ 567,600
726	Auxiliary Lanes and Median Openings Allotment	1,727	sf	\$ 59.00	\$ 101,864
Paving Construction Cost Subtotal:					\$ 2,405,709
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	72,171
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	72,171
✓	Roadway Drainage		30%	\$	721,713
✓	Illumination		2%	\$	59,822
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	144,343
✓	Sewer	Minor Adjustments	4%	\$	96,228
✓	Establish Turf / Erosion Control		2%	\$	48,114
✓	Basic Landscaping		4%	\$	96,228
	Other:				
Allowance Subtotal:					\$ 1,310,791
Paving and Allowance Subtotal:					\$ 3,716,499
Construction Contingency:					15% \$ 557,475
Construction Cost TOTAL:					\$ 4,274,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,274,000
Engineering/Survey/Testing:		20%	\$ 854,800
Mobilization		5%	\$ 213,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 854,800
Impact Fee Project Cost TOTAL:			\$ 6,197,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-38
Name:	Cleburne (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:	Cleburne Crowley to 3,185' S of Cleburne Crowley		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	3,185		
Service Area(s):	Y		

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	9,201	cy	\$ 17.00	\$ 156,419
228	6" Lime Stabilization (with Lime @ 32#/sy)	17,694	sy	\$ 4.00	\$ 70,778
328	11" Concrete Pavement	16,279	sy	\$ 55.00	\$ 895,339
428	6" Curb and Gutter	12,740	lf	\$ 7.00	\$ 89,180
528	4" Topsoil	14,863	sy	\$ 5.00	\$ 74,317
628	11' Concrete Sidewalk	70,070	sf	\$ 6.00	\$ 420,420
726	Auxiliary Lanes and Median Openings Allotment	1,279	sf	\$ 59.00	\$ 75,451
Paving Construction Cost Subtotal:					\$ 1,781,903
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	53,457
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	53,457
✓	Pavement Markings/Markers		3%	\$	53,457
✓	Roadway Drainage	Standard Internal System	30%	\$	534,571
✓	Illumination		2%	\$	44,310
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	106,914
✓	Sewer	Minor Adjustments	4%	\$	71,276
✓	Establish Turf / Erosion Control		2%	\$	35,638
✓	Basic Landscaping		4%	\$	71,276
	Other:				
Allowance Subtotal:					\$ 1,024,357
Paving and Allowance Subtotal:					\$ 2,806,260
Construction Contingency: 15%					\$ 420,939
Construction Cost TOTAL:					\$ 3,228,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,228,000
Engineering/Survey/Testing:		20%	\$ 645,600
Mobilization		5%	\$ 161,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 322,800
Impact Fee Project Cost TOTAL:			\$ 4,358,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-39
Name:	Cleburne (2)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	3,185' S of Cleburne Crowley to Longhorn Trail			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	1,745			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	5,041	cy	\$ 17.00	\$ 85,699
228	6" Lime Stabilization (with Lime @ 32#/sy)	9,694	sy	\$ 4.00	\$ 38,778
328	11" Concrete Pavement	8,919	sy	\$ 55.00	\$ 490,539
428	6" Curb and Gutter	6,980	lf	\$ 7.00	\$ 48,860
528	4" Topsoil	8,143	sy	\$ 5.00	\$ 40,717
628	11' Concrete Sidewalk	38,390	sf	\$ 6.00	\$ 230,340
726	Auxiliary Lanes and Median Openings Allotment	701	sf	\$ 59.00	\$ 41,338
Paving Construction Cost Subtotal:					\$ 976,270
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW	None Anticipated	3%	\$	29,288
	Traffic Control		0%	\$	-
✓	Pavement Markings/Markers	Standard Internal System	3%	\$	29,288
✓	Roadway Drainage		30%	\$	292,881
✓	Illumination		2%	\$	24,277
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	58,576
✓	Sewer	Minor Adjustments	4%	\$	39,051
✓	Establish Turf / Erosion Control		2%	\$	19,525
✓	Basic Landscaping		4%	\$	39,051
	Other:				
Allowance Subtotal:					\$ 531,937
Paving and Allowance Subtotal:					\$ 1,508,207
Construction Contingency:					15% \$ 226,231
Construction Cost TOTAL:					\$ 1,735,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,735,000
Engineering/Survey/Testing:		20%	\$ 347,000
Mobilization		5%	\$ 86,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 347,000
Impact Fee Project Cost TOTAL:			\$ 2,516,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-40
Name:	Hulen	<b>This project consisted of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector. The City contributed \$1,570,929 overall to this project. This segment accounts for 69% (1,083,941) of the overall cost.</b>		
Limits:	Winnipeg to 335' N of Rancho Verde			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80) (1/2)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,490			
Service Area(s):	Y			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	880,834
Engineering/Survey/Testing:			\$	180,327
ROW/Easement Acquisition:			\$	22,780
Impact Fee Project Cost TOTAL:			\$	1,083,941

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	Y-41
Name:	Cleburne (3)	<b>This project consisted of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector. The City contributed \$1,570,929 overall to this project. This segment accounts for 31% (\$486,988) of the overall cost.</b>		
Limits:	335' N of Rancho Verde to 330' S of Rancho Verde			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	665			
Service Area(s):	Y			
<b>Impact Fee Project Cost Summary</b>				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	395,737
Engineering/Survey/Testing:			\$	81,017
ROW/Easement Acquisition:			\$	10,234
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$</b>	<b>486,988</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-42
Name:	Cleburne (4)	<b>This project consist of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>		
Limits:	330' S of Rancho Verde to 2,295' S of Rancho Verde			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	1,965			
Service Area(s):	Y			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	4,039	cy	\$ 17.00	\$ 68,666
241	6" Lime Stabilization (with Lime @ 32#/sy)	7,860	sy	\$ 4.00	\$ 31,440
341	11" Concrete Pavement	7,423	sy	\$ 55.00	\$ 408,283
441	6" Curb and Gutter	3,930	lf	\$ 7.00	\$ 27,510
541	4" Topsoil	5,677	sy	\$ 5.00	\$ 28,383
641	10' Concrete Sidewalk	39,300	sf	\$ 6.00	\$ 235,800
739	Auxiliary Lanes and Median Openings Allotment	335	sf	\$ 59.00	\$ 19,762
Paving Construction Cost Subtotal:					\$ 819,844
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
✓	Prep ROW		3%	\$	24,595
✓	Traffic Control	Construction Phase Traffic Control	3%	\$	24,595
✓	Pavement Markings/Markers		3%	\$	24,595
✓	Roadway Drainage	Standard Internal System	30%	\$	245,953
✓	Illumination		2%	\$	20,387
	Special Drainage Structures	None Anticipated	\$ -	\$	-
✓	Water	Minor Adjustments	6%	\$	49,191
✓	Sewer	Minor Adjustments	4%	\$	32,794
✓	Establish Turf / Erosion Control		2%	\$	16,397
✓	Basic Landscaping		4%	\$	32,794
	Other:				
Allowance Subtotal:					\$ 471,301
Paving and Allowance Subtotal:					\$ 1,291,145
Construction Contingency: 15%					\$ 193,672
Construction Cost TOTAL:					\$ 1,485,000

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,485,000
Engineering/Survey/Testing:		20%	\$ 297,000
Mobilization		5%	\$ 74,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 148,500
Impact Fee Project Cost TOTAL:			\$ 2,005,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-43
Name:	McCart (1)	<b>This project consists of the construction of the western lanes to complete a four-lane divided system link.</b>	
Limits:	590' S of Risinger to 120' S of Cayman		
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BLS (110) (1/2)		
Ultimate Class:	4 Lane Divided System Link		
Length (lf):	1,615		
Service Area(s):	Y		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
136	Unclassified Street Excavation	2,423	cy	\$ 17.00	\$ 41,183
236	6" Lime Stabilization (with Lime @ 32#/sy)	4,666	sy	\$ 4.00	\$ 18,662
336	11" Concrete Pavement	4,307	sy	\$ 55.00	\$ 236,867
436	6" Curb and Gutter	3,230	lf	\$ 7.00	\$ 22,610
536	4" Topsoil	3,768	sy	\$ 5.00	\$ 18,842
636	11' Concrete Sidewalk	17,765	sf	\$ 6.00	\$ 106,590
734	Auxiliary Lanes and Median Openings Allotment	275	sf	\$ 59.00	\$ 16,242

**Paving Construction Cost Subtotal: \$ 460,995**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 13,830
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 13,830
✓ Pavement Markings/Markers		3%	\$ 13,830
✓ Roadway Drainage	Standard Internal System	30%	\$ 138,298
✓ Illumination		2%	\$ 11,463
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 27,660
✓ Sewer	Minor Adjustments	4%	\$ 18,440
✓ Establish Turf / Erosion Control		2%	\$ 9,220
✓ Basic Landscaping		4%	\$ 18,440
Other:			

**Allowance Subtotal: \$ 265,011**

**Paving and Allowance Subtotal: \$ 726,005**

**Construction Contingency: 15% \$ 108,901**

**Construction Cost TOTAL: \$ 835,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 835,000
Engineering/Survey/Testing:		20%	\$ 167,000
Mobilization		5%	\$ 41,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 83,500

**Impact Fee Project Cost TOTAL: \$ 1,127,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-44
Name:	McCart (2)	This project consists of the construction of a new four-lane divided system link.		
Limits:	120' S of Cayman to McPherson (Future)			
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided System Link			
Length (lf):	3,030			
Service Area(s):	Y			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
135	Unclassified Street Excavation	9,090	cy	\$ 17.00	\$ 154,530
235	6" Lime Stabilization (with Lime @ 32#/sy)	17,507	sy	\$ 4.00	\$ 70,027
335	11" Concrete Pavement	16,160	sy	\$ 55.00	\$ 888,800
435	6" Curb and Gutter	12,120	lf	\$ 7.00	\$ 84,840
535	4" Topsoil	14,140	sy	\$ 5.00	\$ 70,700
635	11' Concrete Sidewalk	66,660	sf	\$ 6.00	\$ 399,960
733	Auxiliary Lanes and Median Openings Allotment	1,217	sf	\$ 59.00	\$ 71,779
Paving Construction Cost Subtotal:					\$ 1,740,636

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW	None Anticipated	3%	\$ 52,219
Traffic Control		0%	\$ -
✓ Pavement Markings/Markers	Standard Internal System	3%	\$ 52,219
✓ Roadway Drainage		30%	\$ 522,191
✓ Illumination		2%	\$ 43,284
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 104,438
✓ Sewer	Minor Adjustments	4%	\$ 69,625
✓ Establish Turf / Erosion Control		2%	\$ 34,813
✓ Basic Landscaping		4%	\$ 69,625
Other:			
Allowance Subtotal:			\$ 948,414
Paving and Allowance Subtotal:			\$ 2,689,050
Construction Contingency:			15% \$ 403,357
Construction Cost TOTAL:			\$ 3,093,000

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,093,000
Engineering/Survey/Testing:		20%	\$ 618,600
Mobilization		5%	\$ 154,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 618,600
Impact Fee Project Cost TOTAL:			\$ 4,485,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Y-45
Name:	McCart (3)	This project consists of the construction of a new four-lane divided neighborhood connector.		
Limits:	McPherson (Future) to 140' N of Twinleaf			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,160			
Service Area(s):	Y			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
128	Unclassified Street Excavation	9,129	cy	\$ 17.00	\$ 155,191
228	6" Lime Stabilization (with Lime @ 32#/sy)	17,556	sy	\$ 4.00	\$ 70,222
328	11" Concrete Pavement	16,151	sy	\$ 55.00	\$ 888,311
428	6" Curb and Gutter	12,640	lf	\$ 7.00	\$ 88,480
528	4" Topsoil	14,747	sy	\$ 5.00	\$ 73,733
628	11' Concrete Sidewalk	69,520	sf	\$ 6.00	\$ 417,120
726	Auxiliary Lanes and Median Openings Allotment	1,269	sf	\$ 59.00	\$ 74,858
Paving Construction Cost Subtotal:					\$ 1,767,916

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW	None Anticipated	3%	\$ 53,037
Traffic Control		0%	\$ -
✓ Pavement Markings/Markers	Standard Internal System	3%	\$ 53,037
✓ Roadway Drainage		30%	\$ 530,375
✓ Illumination		2%	\$ 43,962
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 106,075
✓ Sewer	Minor Adjustments	4%	\$ 70,717
✓ Establish Turf / Erosion Control		2%	\$ 35,358
✓ Basic Landscaping		4%	\$ 70,717
Other:			
Allowance Subtotal:			\$ 963,279
Paving and Allowance Subtotal:			\$ 2,731,195
Construction Contingency:			15% \$ 409,679
Construction Cost TOTAL:			\$ 3,141,000

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,141,000
Engineering/Survey/Testing:		20%	\$ 628,200
Mobilization		5%	\$ 157,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 628,200
Impact Fee Project Cost TOTAL:			\$ 4,554,000

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Y-46
Name:	McCart (4)	<b>This project consists of the construction of the western lanes to complete a four-lane divided neighborhood connector.</b>	
Limits:	Mountain Meadow to 1,600' S of Mountain Meadow		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	1,600		
Service Area(s):	Y		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
129	Unclassified Street Excavation	2,311	cy	\$ 17.00	\$ 39,289
229	6" Lime Stabilization (with Lime @ 32#/sy)	4,444	sy	\$ 4.00	\$ 17,778
329	11" Concrete Pavement	4,089	sy	\$ 55.00	\$ 224,889
429	6" Curb and Gutter	3,200	lf	\$ 7.00	\$ 22,400
529	4" Topsoil	3,733	sy	\$ 5.00	\$ 18,667
629	11' Concrete Sidewalk	17,600	sf	\$ 6.00	\$ 105,600
727	Auxiliary Lanes and Median Openings Allotment	642	sf	\$ 59.00	\$ 37,903

**Paving Construction Cost Subtotal: \$ 466,525**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 13,996
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 13,996
✓ Pavement Markings/Markers		3%	\$ 13,996
✓ Roadway Drainage	Standard Internal System	30%	\$ 139,958
✓ Illumination		2%	\$ 11,601
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 27,992
✓ Sewer	Minor Adjustments	4%	\$ 18,661
✓ Establish Turf / Erosion Control		2%	\$ 9,331
✓ Basic Landscaping		4%	\$ 18,661
Other:			

**Allowance Subtotal: \$ 268,190**

**Paving and Allowance Subtotal: \$ 734,715**

**Construction Contingency: 15% \$ 110,207**

**Construction Cost TOTAL: \$ 845,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 845,000
Engineering/Survey/Testing:		20%	\$ 169,000
Mobilization		5%	\$ 42,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 84,500

**Impact Fee Project Cost TOTAL: \$ 1,141,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.
Name:	Industrial	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	<b>Y-47</b>
Limits:	McCart to 1,005' E of McCart		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	1,005		
Service Area(s):	Y		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	3,294	cy	\$ 17.00	\$ 56,001
233	6" Lime Stabilization (with Lime @ 32#/sy)	6,477	sy	\$ 4.00	\$ 25,907
333	11" Concrete Pavement	6,253	sy	\$ 55.00	\$ 343,933
433	6" Curb and Gutter	2,010	lf	\$ 7.00	\$ 14,070
533	4" Topsoil	3,797	sy	\$ 5.00	\$ 18,983
633	10' Concrete Sidewalk	20,100	sf	\$ 6.00	\$ 120,600
731	Auxiliary Lanes and Median Openings Allotment	171	sf	\$ 59.00	\$ 10,107

**Paving Construction Cost Subtotal: \$ 589,601**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 17,688
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 17,688
✓ Roadway Drainage	Standard Internal System	30%	\$ 176,880
✓ Illumination		2%	\$ 14,661
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 35,376
✓ Sewer	Minor Adjustments	4%	\$ 23,584
✓ Establish Turf / Erosion Control		2%	\$ 11,792
✓ Basic Landscaping		4%	\$ 23,584
Other:			

**Allowance Subtotal: \$ 321,254**

**Paving and Allowance Subtotal: \$ 910,855**

**Construction Contingency: 15% \$ 136,628**

**Construction Cost TOTAL: \$ 1,048,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ <b>1,048,000</b>
<b>Engineering/Survey/Testing:</b>		20%	\$ 209,600
<b>Mobilization</b>		5%	\$ 52,400
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 209,600
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,520,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**Appendix A – Service Area Z**



City of Fort Worth - 2017 Transportation Impact Fee Study  
Transportation Improvements Plan for Transportation Impact Fees  
Appendix A - Summary of Conceptual Level Project Cost Projections

Roadway/Intersection Improvements - Service Area Z

Project No.	IF Class	Street Name	Limits	Status	Percent in SA	Total Cost	Cost in Service Area
X-10, Z-1	NCO-L2-T0-NTMS-P0-BOP (110)	Everman (1)	Butterwick to Cameron Hill	New	50%	\$ 5,459,000	\$ 2,729,500
X-11, Z-2	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Everman (2)	Cameron Hill to 110' E of Sheridan	Widening	50%	\$ 934,000	\$ 467,000
Z-3	NCO-L2-T0-NTMS-P0-BOP (110)	Shelby	Race to Rendon	Widening	50%	\$ 7,055,000	\$ 3,527,500
Z-4	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (4)	FM 731 to Hemphill	Widening	100%	\$ 5,897,000	\$ 5,897,000
Z-5	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (5)	Hemphill to IH-35 W	Widening	100%	\$ 7,042,000	\$ 7,042,000
Z-6	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (6)	IH-35 W to 1,370' W of IH-35 W	Widening	100%	\$ 1,889,000	\$ 1,889,000
Z-7	SYS-L2-T0-NTMS-P0-BOP (110)	Risinger (7)	1,370' W of IH-35 W to Oak Grove	New	100%	\$ 6,019,000	\$ 6,019,000
Z-8	SYS-L2-T0-NTMS-P0-BOP (110)	Oak Grove Shelby (1)	Oak Grove to 1,400' E of Michael	Widening	100%	\$ 4,182,000	\$ 4,182,000
Z-9	SYS-L2-T0-NTMS-P0-BOP (110)	Oak Grove Shelby (2)	1,400' E of Michael to Race	Widening	100%	\$ 3,156,000	\$ 3,156,000
Z-10	NCO-L1-T0-TWLT-P0-BOP (80)	Oak Grove Shelby (3)	Race to Rendon	New	50%	\$ 5,654,000	\$ 2,827,000
Z-11	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (5)	FM 731 to 1,210' W of Deer	New	100%	\$ 10,434,000	\$ 10,434,000
Z-12	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (6)	Bilsky Bay to IH-35 W SBFR	Previous	100%	\$ 458,135	\$ 458,135
Z-13	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (7)	IH-35 W SBFR to IH-35 W NBFR	Previous	100%	\$ 4,061,322	\$ 4,061,322
Z-14	NCO-L2-T0-NTMS-P0-BOP (110)	McPherson (8)	IH-35 W NBFR to Oak Grove	New	100%	\$ 4,975,000	\$ 4,975,000
Z-15	NCO-L2-T0-TWLT-P0-BOP (110)	McPherson (9)	Oak Grove to Forest Hill Everman	Widening	100%	\$ 10,938,000	\$ 10,938,000
Z-16	NCO (E)	McAlister (1)	1,430' W of IH-35 W SBFR to IH-35 W SBFR	Previous	100%	\$ 1,538,879	\$ 1,538,879
Z-17	NCO-L1-T0-TWLT-P0-BOP (80)	McAlister (2)	IH-35 W NBFR to Stone	New	100%	\$ 1,372,000	\$ 1,372,000
Z-18	NCO-L2-T0-TWLT-P0-BOP (110)	Alsbury	IH-35 W NBFR to Stone	Previous	100%	\$ 912,218	\$ 912,218
Z-19	CCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (4)	Everman to Risinger	New	100%	\$ 7,975,000	\$ 7,975,000
Z-20	NCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (5)	3,870' N of McPherson to McPherson	New	100%	\$ 5,469,000	\$ 5,469,000
Z-21	NCO-L2-T0-NTMS-P0-BOP (110)	Hemphill (6)	McPherson to 655' N of Brasenose	New	100%	\$ 8,697,000	\$ 8,697,000
Z-22	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Hemphill (7)	655' N of Brasenose to Nuffield	Widening	100%	\$ 459,000	\$ 459,000
Z-23	NCO-L2-T0-TWLT-P0-BOP (110) (1/2)	Hemphill (8)	240' S of FM 1187 to 130' S of Windy Knoll	Widening	100%	\$ 1,758,000	\$ 1,758,000
Z-24	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Oak Grove (5)	Forum to 605' S of Forum	Widening	100%	\$ 435,000	\$ 435,000
Z-25	CCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (6)	605' S of Forum to Risinger	Widening	100%	\$ 1,947,000	\$ 1,947,000
Z-26	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (7)	Risinger to 1,020' S of Risinger	Widening	100%	\$ 1,554,000	\$ 1,554,000
Z-27	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (8)	1,025' S of Risinger to Buffalo Springs	New	100%	\$ 4,701,000	\$ 4,701,000
Z-28	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (9)	Buffalo Springs to McPherson	Widening	100%	\$ 1,191,000	\$ 1,191,000
Z-29	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove (10)	McPherson to Oak Grove E	Widening	100%	\$ 3,476,000	\$ 3,476,000
Z-30	NCO-L2-T0-NTMS-P0-BOP (110)	Stone (1)	Oak Grove E to Nelson	Widening	100%	\$ 3,696,000	\$ 3,696,000
Z-31	CCO-L2-T0-NTMS-P0-BOP (110)	Stone (2)	Nelson to FM 1187	New	100%	\$ 8,690,000	\$ 8,690,000
Z-32	CCO-L2-T0-TWLT-P0-BOP (110)	Stone (3)	FM 1187 to McAlister	New	100%	\$ 3,597,000	\$ 3,597,000
Z-33	CCO-L2-T0-TWLT-P0-BOP (110)	Stone (4)	McAlister to Alsbury	New	100%	\$ 5,045,000	\$ 5,045,000
Z-34	NCO-L2-T0-NTMS-P0-BOP (110)	Wichita (3)	Shelby to Oak Grove Shelby	New	100%	\$ 3,908,000	\$ 3,908,000
Z-35	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Wichita (4)	Race to 795' W of Race	Widening	100%	\$ 556,000	\$ 556,000
Z-36	NCO-L2-T0-NTMS-P0-BOP (110)	Wichita (5)	795' W of Race to McPherson	New	100%	\$ 6,695,000	\$ 6,695,000
Z-37	NCO-L2-T0-NTMS-P0-BOP (110)	Wichita (6)	McPherson to Nicole	New	100%	\$ 8,211,000	\$ 8,211,000
Z-38	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove S (1)	Nelson to 310' S of Nelson	New	100%	\$ 470,000	\$ 470,000
Z-39	NCO-L2-T0-TWLT-P0-BOP (110)	Oak Grove S (2)	310' S of Nelson to 260' S of Smallwood	Widening	100%	\$ 1,177,000	\$ 1,177,000
Z-40	NCO-L1-T0-TWLT-P0-BOP (80)	Wildcat Way (1)	FM 1187 to Burleson Retta	New	100%	\$ 9,867,000	\$ 9,867,000
Z-41	NCO-L1-T0-TWLT-P0-BOP (80)	Wildcat Way (2)	Burleson Retta to 455' S of Thomas Crossing	Widening	100%	\$ 2,363,000	\$ 2,363,000
Z-42	NCO-L1-T0-TWLT-P0-BOP (80)	Wildcat Way (3)	Abner Lee to 615' S of Abner Lee	New	100%	\$ 661,000	\$ 661,000
Z-43	NCO-L1-T0-TWLT-P0-BOP (80)	Abner Drive	1,195' W of Wildcat Way to 260' W of Wildcat Way	New	100%	\$ 1,006,000	\$ 1,006,000
Z-44	NCO-L2-T0-NTMS-P0-BOP (110)	Forest Hill	645' N of Chambers Creek to Shelby	Widening	50%	\$ 3,213,000	\$ 1,606,500
Z-45	NCO-L2-T0-NTMS-P0-BOP (110)	Rendon	Shelby to Oak Grove Shelby	Widening	50%	\$ 3,428,000	\$ 1,714,000
Intersection Improvements	Type	Road A	Road B	Status	Percent in SA	Total Cost	Cost in Service Area
	Roundabout	Alsbury	Stone	Rebuild	75%	\$ 1,500,000	\$ 1,125,000
	Roundabout	Burleson Retta	Wildcat Way	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Everman	Hemphill	New	50%	\$ 1,000,000	\$ 500,000
	Turn Lane Improvements	Everman	Will Rogers	Retrofit	50%	\$ 295,000	\$ 147,500
	Turn Lane Improvements	Everman	Oak Grove	Rebuild	50%	\$ 800,000	\$ 400,000
	Turn Lane Improvements	Everman	FM 731	Retrofit	25%	\$ 345,000	\$ 86,250
	Roundabout	McAlister	Stone	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	McPherson	Hemphill	New	100%	\$ 1,000,000	\$ 1,000,000
	Roundabout	McPherson	Oak Grove	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	McPherson	Wichita	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Turn Lane Improvements	FM 1187	Stone	Rebuild	100%	\$ 900,000	\$ 900,000
	Turn Lane Improvements	FM 1187	Oak Grove S	Rebuild	75%	\$ 600,000	\$ 450,000
	Turn Lane Improvements	FM 1187	Hemphill	Retrofit	100%	\$ 590,000	\$ 590,000
	Turn Lane Improvements	Risinger	FM 731	Rebuild	50%	\$ 1,000,000	\$ 500,000
	Turn Lane Improvements	Risinger	Hemphill	Rebuild	100%	\$ 900,000	\$ 900,000
	Roundabout	Risinger	Oak Grove	Rebuild	100%	\$ 1,500,000	\$ 1,500,000
	Roundabout	Oak Grove Shelby	Wichita	New	50%	\$ 1,000,000	\$ 500,000
	Roundabout	Shelby	Wichita	Rebuild	50%	\$ 1,500,000	\$ 750,000
	Roundabout	Shelby	Rendon	Rebuild	75%	\$ 1,500,000	\$ 1,125,000

**NOTES:**  
1. These cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.  
2. Intersection Improvements were identified based on impact fee project status, MTP classification, and future model volumes. Turn lane improvements and roundabouts may be substituted for each other if determined more appropriate based further design level evaluation.



**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-10, Z-1
Name:	Everman (1)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	Butterwick to Cameron Hill		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,980		
Service Area(s):	Z, X		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	8,609	cy	\$ 17.00	\$ 146,351
230	6" Lime Stabilization (with Lime @ 32#/sy)	16,556	sy	\$ 4.00	\$ 66,222
330	11" Concrete Pavement	15,231	sy	\$ 55.00	\$ 837,711
430	6" Curb and Gutter	11,920	lf	\$ 7.00	\$ 83,440
530	4" Topsoil	14,569	sy	\$ 5.00	\$ 72,844
630	10' Concrete Sidewalk	59,600	sf	\$ 6.00	\$ 357,600
728	Auxiliary Lanes and Median Openings Allotment	1,197	sf	\$ 59.00	\$ 70,594

**Paving Construction Cost Subtotal: \$ 1,634,763**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 49,043
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 49,043
✓ Roadway Drainage	Standard Internal System	30%	\$ 490,429
✓ Illumination		2%	\$ 40,651
✓ Special Drainage Structures	Minor Stream Crossing(s)	\$ 313,500	\$ 313,500
✓ Water	Minor Adjustments	6%	\$ 98,086
✓ Sewer	Minor Adjustments	4%	\$ 65,391
✓ Establish Turf / Erosion Control		2%	\$ 32,695
✓ Basic Landscaping		4%	\$ 65,391
✓ Other:	Railroad Crossing	\$500,000	\$ 500,000

**Allowance Subtotal: \$ 1,704,228**

**Paving and Allowance Subtotal: \$ 3,338,991**

**Construction Contingency: 15% \$ 425,849**

**Construction Cost TOTAL: \$ 3,765,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,765,000
Engineering/Survey/Testing:		20%	\$ 753,000
Mobilization		5%	\$ 188,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 753,000

**Impact Fee Project Cost TOTAL: \$ 5,459,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. X-11, Z-2
<b>Name:</b>	Everman (2)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided neighborhood connector.</b>	
<b>Limits:</b>	Cameron Hill to 110' E of Sheridan		
<b>Impact Fee Class:</b>	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
<b>Ultimate Class:</b>	4 Lane Divided Neighborhood Connector		
<b>Length (lf):</b>	1,335		
<b>Service Area(s):</b>	Z, X		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	1,928	cy	\$ 17.00	\$ 32,782
231	6" Lime Stabilization (with Lime @ 32#/sy)	3,708	sy	\$ 4.00	\$ 14,833
331	11" Concrete Pavement	3,412	sy	\$ 55.00	\$ 187,642
431	6" Curb and Gutter	2,670	lf	\$ 7.00	\$ 18,690
531	4" Topsoil	3,263	sy	\$ 5.00	\$ 16,317
631	10' Concrete Sidewalk	13,350	sf	\$ 6.00	\$ 80,100
729	Auxiliary Lanes and Median Openings Allotment	536	sf	\$ 59.00	\$ 31,625

**Paving Construction Cost Subtotal: \$ 381,989**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 11,460
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 11,460
✓ Pavement Markings/Markers		3%	\$ 11,460
✓ Roadway Drainage	Standard Internal System	30%	\$ 114,597
✓ Illumination		2%	\$ 9,499
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 22,919
✓ Sewer	Minor Adjustments	4%	\$ 15,280
✓ Establish Turf / Erosion Control		2%	\$ 7,640
✓ Basic Landscaping		4%	\$ 15,280
Other:		\$0	\$ -

**Allowance Subtotal: \$ 219,593**

**Paving and Allowance Subtotal: \$ 601,581**

**Construction Contingency: 15% \$ 90,237**

**Construction Cost TOTAL: \$ 692,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 692,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 138,400
<b>Mobilization</b>		5%	\$ 34,600
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 69,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 934,000</b>

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

The planning level cost projections shall not supersede the City's design standards contained or the determination of the City Engineer for a specific project.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-3
Name:	Shelby	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>		
Limits:	Race to Rendon			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	5,260			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	15,196	cy	\$ 17.00	\$ 258,324
230	6" Lime Stabilization (with Lime @ 32#/sy)	29,222	sy	\$ 4.00	\$ 116,889
330	11" Concrete Pavement	26,884	sy	\$ 55.00	\$ 1,478,644
430	6" Curb and Gutter	21,040	lf	\$ 7.00	\$ 147,280
530	4" Topsoil	25,716	sy	\$ 5.00	\$ 128,578
630	10' Concrete Sidewalk	105,200	sf	\$ 6.00	\$ 631,200
728	Auxiliary Lanes and Median Openings Allotment	2,112	sf	\$ 59.00	\$ 124,606

**Paving Construction Cost Subtotal: \$ 2,885,522**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 86,566
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 86,566
✓ Pavement Markings/Markers		3%	\$ 86,566
✓ Roadway Drainage	Standard Internal System	30%	\$ 865,657
✓ Illumination		2%	\$ 71,753
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 173,131
✓ Sewer	Minor Adjustments	4%	\$ 115,421
✓ Establish Turf / Erosion Control		2%	\$ 57,710
✓ Basic Landscaping		4%	\$ 115,421
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,658,790**

**Paving and Allowance Subtotal: \$ 4,544,312**

**Construction Contingency: 15% \$ 681,647**

**Construction Cost TOTAL: \$ 5,226,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,226,000
Engineering/Survey/Testing:		20%	\$ 1,045,200
Mobilization		5%	\$ 261,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 522,600

**Impact Fee Project Cost TOTAL: \$ 7,055,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-4
Name:	Risinger (4)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided system link.</b>		
Limits:	FM 731 to Hemphill			
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided System Link			
Length (lf):	4,030			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
137	Unclassified Street Excavation	12,090	cy	\$ 17.00	\$ 205,530
237	6" Lime Stabilization (with Lime @ 32#/sy)	23,284	sy	\$ 4.00	\$ 93,138
337	11" Concrete Pavement	21,493	sy	\$ 55.00	\$ 1,182,133
437	6" Curb and Gutter	16,120	lf	\$ 7.00	\$ 112,840
537	4" Topsoil	19,702	sy	\$ 5.00	\$ 98,511
637	10' Concrete Sidewalk	80,600	sf	\$ 6.00	\$ 483,600
735	Auxiliary Lanes and Median Openings Allotment	1,618	sf	\$ 59.00	\$ 95,468

**Paving Construction Cost Subtotal: \$ 2,271,220**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 68,137
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 68,137
✓ Pavement Markings/Markers		3%	\$ 68,137
✓ Roadway Drainage	Standard Internal System	30%	\$ 681,366
✓ Illumination		2%	\$ 56,478
✓ Special Drainage Structures	Minor Stream Crossing(s)	\$ 221,000	\$ 221,000
✓ Water	Minor Adjustments	6%	\$ 136,273
✓ Sewer	Minor Adjustments	4%	\$ 90,849
✓ Establish Turf / Erosion Control		2%	\$ 45,424
✓ Basic Landscaping		4%	\$ 90,849
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,526,649**

**Paving and Allowance Subtotal: \$ 3,797,869**

**Construction Contingency: 15% \$ 569,680**

**Construction Cost TOTAL: \$ 4,368,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,368,000
Engineering/Survey/Testing:		20%	\$ 873,600
Mobilization		5%	\$ 218,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 436,800

**Impact Fee Project Cost TOTAL: \$ 5,897,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-5
Name:	Risinger (5)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided system link.</b>		
Limits:	Hemphill to IH-35 W			
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided System Link			
Length (lf):	4,620			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
137	Unclassified Street Excavation	13,860	cy	\$ 17.00	\$ 235,620
237	6" Lime Stabilization (with Lime @ 32#/sy)	26,693	sy	\$ 4.00	\$ 106,773
337	11" Concrete Pavement	24,640	sy	\$ 55.00	\$ 1,355,200
437	6" Curb and Gutter	18,480	lf	\$ 7.00	\$ 129,360
537	4" Topsoil	22,587	sy	\$ 5.00	\$ 112,933
637	10' Concrete Sidewalk	92,400	sf	\$ 6.00	\$ 554,400
735	Auxiliary Lanes and Median Openings Allotment	1,855	sf	\$ 59.00	\$ 109,445

**Paving Construction Cost Subtotal: \$ 2,603,732**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 78,112
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 78,112
✓ Pavement Markings/Markers		3%	\$ 78,112
✓ Roadway Drainage	Standard Internal System	30%	\$ 781,120
✓ Illumination		2%	\$ 64,746
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 156,224
✓ Sewer	Minor Adjustments	4%	\$ 104,149
✓ Establish Turf / Erosion Control		2%	\$ 52,075
✓ Basic Landscaping		4%	\$ 104,149
✓ Other:	Railroad Crossing	\$500,000	\$ 500,000

**Allowance Subtotal: \$ 1,996,799**

**Paving and Allowance Subtotal: \$ 4,600,530**

**Construction Contingency: 15% \$ 615,080**

**Construction Cost TOTAL: \$ 5,216,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,216,000
Engineering/Survey/Testing:		20%	\$ 1,043,200
Mobilization		5%	\$ 260,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 521,600

**Impact Fee Project Cost TOTAL: \$ 7,042,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-6
Name:	Risinger (6)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided system link.</b>		
Limits:	IH-35 W to 1,370' W of IH-35 W			
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided System Link			
Length (lf):	1,370			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
137	Unclassified Street Excavation	4,110	cy	\$ 17.00	\$ 69,870
237	6" Lime Stabilization (with Lime @ 32#/sy)	7,916	sy	\$ 4.00	\$ 31,662
337	11" Concrete Pavement	7,307	sy	\$ 55.00	\$ 401,867
437	6" Curb and Gutter	5,480	lf	\$ 7.00	\$ 38,360
537	4" Topsoil	6,698	sy	\$ 5.00	\$ 33,489
637	10' Concrete Sidewalk	27,400	sf	\$ 6.00	\$ 164,400
735	Auxiliary Lanes and Median Openings Allotment	550	sf	\$ 59.00	\$ 32,454

**Paving Construction Cost Subtotal: \$ 772,102**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 23,163
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 23,163
✓ Pavement Markings/Markers		3%	\$ 23,163
✓ Roadway Drainage	Standard Internal System	30%	\$ 231,631
✓ Illumination		2%	\$ 19,200
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 46,326
✓ Sewer	Minor Adjustments	4%	\$ 30,884
✓ Establish Turf / Erosion Control		2%	\$ 15,442
✓ Basic Landscaping		4%	\$ 30,884
Other:		\$ -	\$ -

**Allowance Subtotal: \$ 443,856**

**Paving and Allowance Subtotal: \$ 1,215,958**

**Construction Contingency: 15% \$ 182,394**

**Construction Cost TOTAL: \$ 1,399,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,399,000
Engineering/Survey/Testing:		20%	\$ 279,800
Mobilization		5%	\$ 69,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 139,900
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,889,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-7
Name:	Risinger (7)	<b>This project consists of the construction of a new four-lane divided system link.</b>		
Limits:	1,370' W of IH-35 W to Oak Grove			
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided System Link			
Length (lf):	4,145			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
137	Unclassified Street Excavation	12,435	cy	\$ 17.00	\$ 211,395
237	6" Lime Stabilization (with Lime @ 32#/sy)	23,949	sy	\$ 4.00	\$ 95,796
337	11" Concrete Pavement	22,107	sy	\$ 55.00	\$ 1,215,867
437	6" Curb and Gutter	16,580	lf	\$ 7.00	\$ 116,060
537	4" Topsoil	20,264	sy	\$ 5.00	\$ 101,322
637	10' Concrete Sidewalk	82,900	sf	\$ 6.00	\$ 497,400
735	Auxiliary Lanes and Median Openings Allotment	1,664	sf	\$ 59.00	\$ 98,193

**Paving Construction Cost Subtotal: \$ 2,336,032**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 70,081
√ Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers		3%	\$ 70,081
√ Roadway Drainage	Standard Internal System	30%	\$ 700,810
√ Illumination		2%	\$ 58,089
√ Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 140,162
√ Sewer	Minor Adjustments	4%	\$ 93,441
√ Establish Turf / Erosion Control		2%	\$ 46,721
√ Basic Landscaping		4%	\$ 93,441
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,272,826**

**Paving and Allowance Subtotal: \$ 3,608,858**

**Construction Contingency: 15% \$ 541,329**

**Construction Cost TOTAL: \$ 4,151,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,151,000
Engineering/Survey/Testing:		20%	\$ 830,200
Mobilization		5%	\$ 207,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 830,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 6,019,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-8
Name:	Oak Grove Shelby (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided system link.</b>		
Limits:	Oak Grove to 1,400' E of Michael			
Impact Fee Class:	SYS-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided System Link			
Length (lf):	3,035			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
137	Unclassified Street Excavation	9,105	cy	\$ 17.00	\$ 154,785
237	6" Lime Stabilization (with Lime @ 32#/sy)	17,536	sy	\$ 4.00	\$ 70,142
337	11" Concrete Pavement	16,187	sy	\$ 55.00	\$ 890,267
437	6" Curb and Gutter	12,140	lf	\$ 7.00	\$ 84,980
537	4" Topsoil	14,838	sy	\$ 5.00	\$ 74,189
637	10' Concrete Sidewalk	60,700	sf	\$ 6.00	\$ 364,200
735	Auxiliary Lanes and Median Openings Allotment	1,219	sf	\$ 59.00	\$ 71,897

**Paving Construction Cost Subtotal: \$ 1,710,460**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 51,314
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 51,314
✓ Pavement Markings/Markers		3%	\$ 51,314
✓ Roadway Drainage	Standard Internal System	30%	\$ 513,138
✓ Illumination		2%	\$ 42,533
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 102,628
✓ Sewer	Minor Adjustments	4%	\$ 68,418
✓ Establish Turf / Erosion Control		2%	\$ 34,209
✓ Basic Landscaping		4%	\$ 68,418
Other:		\$0	\$ -

**Allowance Subtotal: \$ 983,286**

**Paving and Allowance Subtotal: \$ 2,693,747**

**Construction Contingency: 15% \$ 404,062**

**Construction Cost TOTAL: \$ 3,098,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,098,000
Engineering/Survey/Testing:		20%	\$ 619,600
Mobilization		5%	\$ 154,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 309,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 4,182,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-9
<b>Name:</b>	Oak Grove Shelby (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided system link.</b>		
<b>Limits:</b>	1,400' E of Michael to Race			
<b>Impact Fee Class:</b>	SYS-L2-T0-NTMS-P0-BOP (110)			
<b>Ultimate Class:</b>	4 Lane Divided System Link			
<b>Length (lf):</b>	2,290			
<b>Service Area(s):</b>	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
137	Unclassified Street Excavation	6,870	cy	\$ 17.00	\$ 116,790
237	6" Lime Stabilization (with Lime @ 32#/sy)	13,231	sy	\$ 4.00	\$ 52,924
337	11" Concrete Pavement	12,213	sy	\$ 55.00	\$ 671,733
437	6" Curb and Gutter	9,160	lf	\$ 7.00	\$ 64,120
537	4" Topsoil	11,196	sy	\$ 5.00	\$ 55,978
637	10' Concrete Sidewalk	45,800	sf	\$ 6.00	\$ 274,800
735	Auxiliary Lanes and Median Openings Allotment	919	sf	\$ 59.00	\$ 54,249

**Paving Construction Cost Subtotal: \$ 1,290,594**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 38,718
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 38,718
✓ Pavement Markings/Markers		3%	\$ 38,718
✓ Roadway Drainage	Standard Internal System	30%	\$ 387,178
✓ Illumination		2%	\$ 32,093
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 77,436
✓ Sewer	Minor Adjustments	4%	\$ 51,624
✓ Establish Turf / Erosion Control		2%	\$ 25,812
✓ Basic Landscaping		4%	\$ 51,624
Other:		\$0	\$ -

**Allowance Subtotal: \$ 741,920**

**Paving and Allowance Subtotal: \$ 2,032,514**

**Construction Contingency: 15% \$ 304,877**

**Construction Cost TOTAL: \$ 2,338,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 2,338,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 467,600
<b>Mobilization</b>		5%	\$ 116,900
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 233,800

**Impact Fee Project Cost TOTAL: \$ 3,156,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-10
Name:	Oak Grove Shelby (3)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>	
Limits:	Race to Rendon		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	5,260		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	10,812	cy	\$ 17.00	\$ 183,808
241	6" Lime Stabilization (with Lime @ 32#/sy)	21,040	sy	\$ 4.00	\$ 84,160
341	11" Concrete Pavement	19,871	sy	\$ 55.00	\$ 1,092,911
441	6" Curb and Gutter	10,520	lf	\$ 7.00	\$ 73,640
541	4" Topsoil	15,196	sy	\$ 5.00	\$ 75,978
641	10' Concrete Sidewalk	105,200	sf	\$ 6.00	\$ 631,200
739	Auxiliary Lanes and Median Openings Allotment	897	sf	\$ 59.00	\$ 52,899

**Paving Construction Cost Subtotal: \$ 2,194,596**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 65,838
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 65,838
✓ Roadway Drainage	Standard Internal System	30%	\$ 658,379
✓ Illumination		2%	\$ 54,572
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 131,676
✓ Sewer	Minor Adjustments	4%	\$ 87,784
✓ Establish Turf / Erosion Control		2%	\$ 43,892
✓ Basic Landscaping		4%	\$ 87,784
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,195,762**

**Paving and Allowance Subtotal: \$ 3,390,357**

**Construction Contingency: 15% \$ 508,554**

**Construction Cost TOTAL: \$ 3,899,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,899,000
Engineering/Survey/Testing:		20%	\$ 779,800
Mobilization		5%	\$ 194,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 779,800

**Impact Fee Project Cost TOTAL: \$ 5,654,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-11
Name:	McPherson (5)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	FM 731 to 1,210' W of Deer			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	6,870			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	19,847	cy	\$ 17.00	\$ 337,393
230	6" Lime Stabilization (with Lime @ 32#/sy)	38,167	sy	\$ 4.00	\$ 152,667
330	11" Concrete Pavement	35,113	sy	\$ 55.00	\$ 1,931,233
430	6" Curb and Gutter	27,480	lf	\$ 7.00	\$ 192,360
530	4" Topsoil	33,587	sy	\$ 5.00	\$ 167,933
630	10' Concrete Sidewalk	137,400	sf	\$ 6.00	\$ 824,400
728	Auxiliary Lanes and Median Openings Allotment	2,758	sf	\$ 59.00	\$ 162,746

**Paving Construction Cost Subtotal: \$ 3,768,733**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 113,062
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 113,062
✓ Roadway Drainage	Standard Internal System	30%	\$ 1,130,620
✓ Illumination		2%	\$ 93,716
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 226,124
✓ Sewer	Minor Adjustments	4%	\$ 150,749
✓ Establish Turf / Erosion Control		2%	\$ 75,375
✓ Basic Landscaping		4%	\$ 150,749
✓ Other:	Railroad Crossing	\$500,000	\$ 500,000

**Allowance Subtotal: \$ 2,553,457**

**Paving and Allowance Subtotal: \$ 6,322,190**

**Construction Contingency: 15% \$ 873,328**

**Construction Cost TOTAL: \$ 7,196,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,196,000
Engineering/Survey/Testing:		20%	\$ 1,439,200
Mobilization		5%	\$ 359,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,439,200

**Impact Fee Project Cost TOTAL: \$ 10,434,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*  
 updated: 9/29/2017

Project Information:		Description:	Project No.	Z-12
Name:	McPherson (6)	This project consisted of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector. The contributed \$458,135 overall to this project.		
Limits:	Bilsky Bay to IH-35 W SBFR			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	480			
Service Area(s):	Z			
Impact Fee Project Cost Summary				
Item Description		Notes:	Allowance	Item Cost
Construction:				\$ 381,685
Engineering/Survey/Testing:				\$ 76,450
Impact Fee Project Cost TOTAL:			\$	458,135

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	Z-13
Name:	McPherson (7)	This project consisted of the construction of the northern lanes of the bridge to complete the four-lane divided neighborhood connector. The City contributed \$4,061,322 overall to this project.		
Limits:	IH-35 W SBFR to IH-35 W NBFR			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	680			
Service Area(s):	Z			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	2,987,651
Engineering/Survey/Testing:			\$	818,671
ROW/Easement Acquisition:			\$	255,000
Impact Fee Project Cost TOTAL:			\$	4,061,322

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted contruction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-14
Name:	McPherson (8)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	IH-35 W NBFR to Oak Grove		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	3,520		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	10,169	cy	\$ 17.00	\$ 172,871
230	6" Lime Stabilization (with Lime @ 32#/sy)	19,556	sy	\$ 4.00	\$ 78,222
330	11" Concrete Pavement	17,991	sy	\$ 55.00	\$ 989,511
430	6" Curb and Gutter	14,080	lf	\$ 7.00	\$ 98,560
530	4" Topsoil	17,209	sy	\$ 5.00	\$ 86,044
630	10' Concrete Sidewalk	70,400	sf	\$ 6.00	\$ 422,400
728	Auxiliary Lanes and Median Openings Allotment	1,413	sf	\$ 59.00	\$ 83,387

**Paving Construction Cost Subtotal: \$ 1,930,996**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 57,930
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 57,930
✓ Roadway Drainage	Standard Internal System	30%	\$ 579,299
✓ Illumination		2%	\$ 48,017
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 115,860
✓ Sewer	Minor Adjustments	4%	\$ 77,240
✓ Establish Turf / Erosion Control		2%	\$ 38,620
✓ Basic Landscaping		4%	\$ 77,240
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,052,135**

**Paving and Allowance Subtotal: \$ 2,983,131**

**Construction Contingency: 15% \$ 447,470**

**Construction Cost TOTAL: \$ 3,431,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,431,000
Engineering/Survey/Testing:		20%	\$ 686,200
Mobilization		5%	\$ 171,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 686,200

**Impact Fee Project Cost TOTAL: \$ 4,975,000**

**NOTE:** The planning level cost projections listed in this appendix have been developed for Impact Fee calculations only and should not be used for any future Capital Improvement Planning within the City of Fort Worth.

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-15
Name:	McPherson (9)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
Limits:	Oak Grove to Forest Hill Everman		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	7,625		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	24,993	cy	\$ 17.00	\$ 424,882
233	6" Lime Stabilization (with Lime @ 32#/sy)	49,139	sy	\$ 4.00	\$ 196,556
333	11" Concrete Pavement	47,444	sy	\$ 55.00	\$ 2,609,444
433	6" Curb and Gutter	15,250	lf	\$ 7.00	\$ 106,750
533	4" Topsoil	28,806	sy	\$ 5.00	\$ 144,028
633	10' Concrete Sidewalk	152,500	sf	\$ 6.00	\$ 915,000
731	Auxiliary Lanes and Median Openings Allotment	1,300	sf	\$ 59.00	\$ 76,683

**Paving Construction Cost Subtotal: \$ 4,473,343**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 134,200
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 134,200
✓ Pavement Markings/Markers		3%	\$ 134,200
✓ Roadway Drainage	Standard Internal System	30%	\$ 1,342,003
✓ Illumination		2%	\$ 111,237
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 268,401
✓ Sewer	Minor Adjustments	4%	\$ 178,934
✓ Establish Turf / Erosion Control		2%	\$ 89,467
✓ Basic Landscaping		4%	\$ 178,934
Other:		\$0	\$ -

**Allowance Subtotal: \$ 2,571,576**

**Paving and Allowance Subtotal: \$ 7,044,919**

**Construction Contingency: 15% \$ 1,056,738**

**Construction Cost TOTAL: \$ 8,102,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,102,000
Engineering/Survey/Testing:		20%	\$ 1,620,400
Mobilization		5%	\$ 405,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 810,200

**Impact Fee Project Cost TOTAL: \$ 10,938,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	Z-16
Name:	McAlister (1)	<b>This project consisted of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector. The contributed \$1,538,879 overall to this project.</b>		
Limits:	1,430' W of IH-35 W SBFR to IH-35 W SBFR			
Impact Fee Class:	NCO (E)			
Ultimate Class:	Established Neighborhood Connector			
Length (lf):	1,430			
Service Area(s):	Z			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	1,563,036
Engineering/Survey/Testing:			\$	215,843
Previous City contribution	Transportation Impact Fees Legacy Fund		\$	(240,000)
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$</b>	<b>1,538,879</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted construction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-17
Name:	McAlister (2)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>	
Limits:	IH-35 W NBFR to Stone		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	1,275		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	2,621	cy	\$ 17.00	\$ 44,554
241	6" Lime Stabilization (with Lime @ 32#/sy)	5,100	sy	\$ 4.00	\$ 20,400
341	11" Concrete Pavement	4,817	sy	\$ 55.00	\$ 264,917
441	6" Curb and Gutter	2,550	lf	\$ 7.00	\$ 17,850
541	4" Topsoil	3,683	sy	\$ 5.00	\$ 18,417
641	10' Concrete Sidewalk	25,500	sf	\$ 6.00	\$ 153,000
739	Auxiliary Lanes and Median Openings Allotment	217	sf	\$ 59.00	\$ 12,822

**Paving Construction Cost Subtotal: \$ 531,960**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 15,959
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 15,959
✓ Roadway Drainage	Standard Internal System	30%	\$ 159,588
✓ Illumination		2%	\$ 13,228
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 31,918
✓ Sewer	Minor Adjustments	4%	\$ 21,278
✓ Establish Turf / Erosion Control		2%	\$ 10,639
✓ Basic Landscaping		4%	\$ 21,278
Other:		\$0	\$ -

**Allowance Subtotal: \$ 289,847**

**Paving and Allowance Subtotal: \$ 821,807**

**Construction Contingency: 15% \$ 123,271**

**Construction Cost TOTAL: \$ 946,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 946,000
Engineering/Survey/Testing:		20%	\$ 189,200
Mobilization		5%	\$ 47,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 189,200

**Impact Fee Project Cost TOTAL: \$ 1,372,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

*Kimley-Horn and Associates, Inc.*

updated:

9/29/2017

Project Information:		Description:	Project No.	Z-18
Name:	Alsbury	<b>This project consisted of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector. The contributed \$912,218 overall to this project.</b>		
Limits:	IH-35 W NBFR to Stone			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	1,140			
Service Area(s):	Z			
Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance	Item Cost	
Construction:			\$	1,998,305
Engineering/Survey/Testing:			\$	124,159
Previous City contribution	Transportation Impact Fees Legacy Fund		\$	(1,301,494)
ROW/Easement Acquisition:			\$	91,248
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$</b>	<b>912,218</b>

**NOTE:** The impact free project cost for this completed project is based on actual or budgeted contruction costs provided by the City.

**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-19	
Name:	Hemphill (4)	This project consists of the construction of a new four-lane divided commercial connector.			
Limits:	Everman to Risinger				
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)				
Ultimate Class:	4 Lane Divided Commercial Connector				
Length (lf):	4,525				
Service Area(s):	Z				
Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	13,575	cy	\$ 17.00	\$ 230,775
223	6" Lime Stabilization (with Lime @ 32#/sy)	26,144	sy	\$ 4.00	\$ 104,578
323	11" Concrete Pavement	24,133	sy	\$ 55.00	\$ 1,327,333
423	6" Curb and Gutter	18,100	lf	\$ 7.00	\$ 126,700
523	4" Topsoil	21,117	sy	\$ 5.00	\$ 105,583
623	10' Concrete Sidewalk	90,500	sf	\$ 6.00	\$ 543,000
721	Auxiliary Lanes and Median Openings Allotment	1,817	sf	\$ 59.00	\$ 107,195
Paving Construction Cost Subtotal:					\$ 2,545,164
Major Construction Component Allowances:					
Item Description		Notes	Allowance	Item Cost	
√	Prep ROW	None Anticipated	3%	\$	76,355
	Traffic Control		0%	\$	-
√	Pavement Markings/Markers	Standard Internal System	3%	\$	76,355
√	Roadway Drainage		30%	\$	763,549
√	Illumination		2%	\$	63,290
√	Special Drainage Structures	Drainage Crossing(s)	\$ 850,000	\$	850,000
√	Water	Minor Adjustments	6%	\$	152,710
√	Sewer	Minor Adjustments	4%	\$	101,807
√	Establish Turf / Erosion Control		2%	\$	50,903
√	Basic Landscaping		4%	\$	101,807
	Other:		\$0	\$	-
Allowance Subtotal:					\$ 2,236,775
Paving and Allowance Subtotal:					\$ 4,781,939
Construction Contingency:					15% \$ 717,291
Construction Cost TOTAL:					\$ 5,500,000
Impact Fee Project Cost Summary					
Item Description		Notes:	Allowance	Item Cost	
Construction:			-	\$	5,500,000
Engineering/Survey/Testing:			20%	\$	1,100,000
Mobilization			5%	\$	275,000
Previous City contribution				\$	-
Other					
ROW/Easement Acquisition:		New Roadway Alignment	20%	\$	1,100,000
Impact Fee Project Cost TOTAL:					\$ 7,975,000

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-20
Name:	Hemphill (5)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	3,870' N of McPherson to McPherson			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	3,870			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	11,180	cy	\$ 17.00	\$ 190,060
230	6" Lime Stabilization (with Lime @ 32#/sy)	21,500	sy	\$ 4.00	\$ 86,000
330	11" Concrete Pavement	19,780	sy	\$ 55.00	\$ 1,087,900
430	6" Curb and Gutter	15,480	lf	\$ 7.00	\$ 108,360
530	4" Topsoil	18,920	sy	\$ 5.00	\$ 94,600
630	10' Concrete Sidewalk	77,400	sf	\$ 6.00	\$ 464,400
728	Auxiliary Lanes and Median Openings Allotment	1,554	sf	\$ 59.00	\$ 91,678

**Paving Construction Cost Subtotal: \$ 2,122,998**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 63,690
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 63,690
✓ Roadway Drainage	Standard Internal System	30%	\$ 636,899
✓ Illumination		2%	\$ 52,792
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 127,380
✓ Sewer	Minor Adjustments	4%	\$ 84,920
✓ Establish Turf / Erosion Control		2%	\$ 42,460
✓ Basic Landscaping		4%	\$ 84,920
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,156,751**

**Paving and Allowance Subtotal: \$ 3,279,749**

**Construction Contingency: 15% \$ 491,962**

**Construction Cost TOTAL: \$ 3,772,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,772,000
Engineering/Survey/Testing:		20%	\$ 754,400
Mobilization		5%	\$ 188,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 754,400
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 5,469,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-21
Name:	Hemphill (6)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>		
Limits:	McPherson to 655' N of Brasenose			
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Neighborhood Connector			
Length (lf):	4,820			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	13,924	cy	\$ 17.00	\$ 236,716
230	6" Lime Stabilization (with Lime @ 32#/sy)	26,778	sy	\$ 4.00	\$ 107,111
330	11" Concrete Pavement	24,636	sy	\$ 55.00	\$ 1,354,956
430	6" Curb and Gutter	19,280	lf	\$ 7.00	\$ 134,960
530	4" Topsoil	23,564	sy	\$ 5.00	\$ 117,822
630	10' Concrete Sidewalk	96,400	sf	\$ 6.00	\$ 578,400
728	Auxiliary Lanes and Median Openings Allotment	1,935	sf	\$ 59.00	\$ 114,183

**Paving Construction Cost Subtotal: \$ 2,644,147**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 79,324
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 79,324
✓ Roadway Drainage	Standard Internal System	30%	\$ 793,244
✓ Illumination		2%	\$ 65,751
✓ Special Drainage Structures	Drainage Crossing(s)	\$ 1,130,250	\$ 1,130,250
✓ Water	Minor Adjustments	6%	\$ 158,649
✓ Sewer	Minor Adjustments	4%	\$ 105,766
✓ Establish Turf / Erosion Control		2%	\$ 52,883
✓ Basic Landscaping		4%	\$ 105,766
Other:		\$0	\$ -

**Allowance Subtotal: \$ 2,570,958**

**Paving and Allowance Subtotal: \$ 5,215,105**

**Construction Contingency: 15% \$ 782,266**

**Construction Cost TOTAL: \$ 5,998,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,998,000
Engineering/Survey/Testing:		20%	\$ 1,199,600
Mobilization		5%	\$ 299,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,199,600

**Impact Fee Project Cost TOTAL: \$ 8,697,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-22
Name:	Hemphill (7)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided neighborhood connector.</b>	
Limits:	655' N of Brasenose to Nuffield		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	655		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	946	cy	\$ 17.00	\$ 16,084
231	6" Lime Stabilization (with Lime @ 32#/sy)	1,819	sy	\$ 4.00	\$ 7,278
331	11" Concrete Pavement	1,674	sy	\$ 55.00	\$ 92,064
431	6" Curb and Gutter	1,310	lf	\$ 7.00	\$ 9,170
531	4" Topsoil	1,601	sy	\$ 5.00	\$ 8,006
631	10' Concrete Sidewalk	6,550	sf	\$ 6.00	\$ 39,300
729	Auxiliary Lanes and Median Openings Allotment	263	sf	\$ 59.00	\$ 15,517

**Paving Construction Cost Subtotal: \$ 187,418**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 5,623
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 5,623
✓ Pavement Markings/Markers		3%	\$ 5,623
✓ Roadway Drainage	Standard Internal System	30%	\$ 56,225
✓ Illumination		2%	\$ 4,660
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 11,245
✓ Sewer	Minor Adjustments	4%	\$ 7,497
✓ Establish Turf / Erosion Control		2%	\$ 3,748
✓ Basic Landscaping		4%	\$ 7,497
Other:		\$0	\$ -

**Allowance Subtotal: \$ 107,740**

**Paving and Allowance Subtotal: \$ 295,158**

**Construction Contingency: 15% \$ 44,274**

**Construction Cost TOTAL: \$ 340,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 340,000
Engineering/Survey/Testing:		20%	\$ 68,000
Mobilization		5%	\$ 17,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 34,000
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 459,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-23
<b>Name:</b>	Hemphill (8)	<b>This project consists of the construction of the western lanes to complete the five-lane undivided neighborhood connector.</b>		
<b>Limits:</b>	240' S of FM 1187 to 130' S of Windy Knoll			
<b>Impact Fee Class:</b>	NCO-L2-T0-TWLT-P0-BOP (110) (1/2)			
<b>Ultimate Class:</b>	5 Lane Undivided Neighborhood Connector			
<b>Length (lf):</b>	2,135			
<b>Service Area(s):</b>	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
134	Unclassified Street Excavation	4,151	cy	\$ 17.00	\$ 70,574
234	6" Lime Stabilization (with Lime @ 32#/sy)	8,184	sy	\$ 4.00	\$ 32,737
334	11" Concrete Pavement	7,947	sy	\$ 55.00	\$ 437,082
434	6" Curb and Gutter	2,135	lf	\$ 7.00	\$ 14,945
534	4" Topsoil	2,728	sy	\$ 5.00	\$ 13,640
634	10' Concrete Sidewalk	21,350	sf	\$ 6.00	\$ 128,100
732	Auxiliary Lanes and Median Openings Allotment	364	sf	\$ 59.00	\$ 21,471

**Paving Construction Cost Subtotal: \$ 718,549**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 21,556
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 21,556
✓ Pavement Markings/Markers		3%	\$ 21,556
✓ Roadway Drainage	Standard Internal System	30%	\$ 215,565
✓ Illumination		2%	\$ 17,868
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 43,113
✓ Sewer	Minor Adjustments	4%	\$ 28,742
✓ Establish Turf / Erosion Control		2%	\$ 14,371
✓ Basic Landscaping		4%	\$ 28,742
Other:		\$0	\$ -

**Allowance Subtotal: \$ 413,070**

**Paving and Allowance Subtotal: \$ 1,131,619**

**Construction Contingency: 15% \$ 169,743**

**Construction Cost TOTAL: \$ 1,302,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 1,302,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 260,400
<b>Mobilization</b>		5%	\$ 65,100
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 130,200

**Impact Fee Project Cost TOTAL: \$ 1,758,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-24
<b>Name:</b>	Oak Grove (5)	<b>This project consists of the construction of the eastern lanes to complete the four-lane divided commercial connector.</b>		
<b>Limits:</b>	Forum to 605' S of Forum			
<b>Impact Fee Class:</b>	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)			
<b>Ultimate Class:</b>	4 Lane Divided Commercial Connector			
<b>Length (lf):</b>	605			
<b>Service Area(s):</b>	Z			

Roadway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Unit Price	Item Cost
124	Unclassified Street Excavation	908	cy	\$ 17.00	\$ 15,428
224	6" Lime Stabilization (with Lime @ 32#/sy)	1,748	sy	\$ 4.00	\$ 6,991
324	11" Concrete Pavement	1,613	sy	\$ 55.00	\$ 88,733
424	6" Curb and Gutter	1,210	lf	\$ 7.00	\$ 8,470
524	4" Topsoil	1,412	sy	\$ 5.00	\$ 7,058
624	10' Concrete Sidewalk	6,050	sf	\$ 6.00	\$ 36,300
722	Auxiliary Lanes and Median Openings Allotment	243	sf	\$ 59.00	\$ 14,332

**Paving Construction Cost Subtotal: \$ 177,312**

Major Construction Component Allowances:			
Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 5,319
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 5,319
✓ Pavement Markings/Markers		3%	\$ 5,319
✓ Roadway Drainage	Standard Internal System	30%	\$ 53,194
✓ Illumination		2%	\$ 4,409
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 10,639
✓ Sewer	Minor Adjustments	4%	\$ 7,092
✓ Establish Turf / Erosion Control		2%	\$ 3,546
✓ Basic Landscaping		4%	\$ 7,092
Other:		\$0	\$ -

**Allowance Subtotal: \$ 101,931**

**Paving and Allowance Subtotal: \$ 279,243**  
**Construction Contingency: 15% \$ 41,886**  
**Construction Cost TOTAL: \$ 322,000**

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 322,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 64,400
<b>Mobilization</b>		5%	\$ 16,100
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 32,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 435,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-25
Name:	Oak Grove (6)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided commercial connector.</b>	
Limits:	605' S of Forum to Risinger		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	1,325		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	4,490	cy	\$ 17.00	\$ 76,335
225	6" Lime Stabilization (with Lime @ 32#/sy)	8,833	sy	\$ 4.00	\$ 35,333
325	11" Concrete Pavement	8,539	sy	\$ 55.00	\$ 469,639
425	6" Curb and Gutter	2,650	lf	\$ 7.00	\$ 18,550
525	4" Topsoil	4,711	sy	\$ 5.00	\$ 23,556
625	10' Concrete Sidewalk	26,500	sf	\$ 6.00	\$ 159,000
723	Auxiliary Lanes and Median Openings Allotment	226	sf	\$ 59.00	\$ 13,325

**Paving Construction Cost Subtotal: \$ 795,738**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 23,872
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 23,872
✓ Pavement Markings/Markers		3%	\$ 23,872
✓ Roadway Drainage	Standard Internal System	30%	\$ 238,721
✓ Illumination		2%	\$ 19,787
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 47,744
✓ Sewer	Minor Adjustments	4%	\$ 31,830
✓ Establish Turf / Erosion Control		2%	\$ 15,915
✓ Basic Landscaping		4%	\$ 31,830
Other:		\$0	\$ -

**Allowance Subtotal: \$ 457,443**

**Paving and Allowance Subtotal: \$ 1,253,181**

**Construction Contingency: 15% \$ 187,977**

**Construction Cost TOTAL: \$ 1,442,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,442,000
Engineering/Survey/Testing:		20%	\$ 288,400
Mobilization		5%	\$ 72,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 144,200

**Impact Fee Project Cost TOTAL: \$ 1,947,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-26
Name:	Oak Grove (7)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
Limits:	Risinger to 1,020' S of Risinger		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	1,020		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	3,343	cy	\$ 17.00	\$ 56,837
233	6" Lime Stabilization (with Lime @ 32#/sy)	6,573	sy	\$ 4.00	\$ 26,293
333	11" Concrete Pavement	6,347	sy	\$ 55.00	\$ 349,067
433	6" Curb and Gutter	2,040	lf	\$ 7.00	\$ 14,280
533	4" Topsoil	3,853	sy	\$ 5.00	\$ 19,267
633	10' Concrete Sidewalk	20,400	sf	\$ 6.00	\$ 122,400
731	Auxiliary Lanes and Median Openings Allotment	174	sf	\$ 59.00	\$ 10,258

**Paving Construction Cost Subtotal: \$ 598,401**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 17,952
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 17,952
✓ Pavement Markings/Markers		3%	\$ 17,952
✓ Roadway Drainage	Standard Internal System	30%	\$ 179,520
✓ Illumination		2%	\$ 14,880
✓ Special Drainage Structures	Minor Stream Crossing(s)	\$ 57,750	\$ 57,750
✓ Water	Minor Adjustments	6%	\$ 35,904
✓ Sewer	Minor Adjustments	4%	\$ 23,936
✓ Establish Turf / Erosion Control		2%	\$ 11,968
✓ Basic Landscaping		4%	\$ 23,936
Other:		\$0	\$ -

**Allowance Subtotal: \$ 401,751**

**Paving and Allowance Subtotal: \$ 1,000,152**

**Construction Contingency: 15% \$ 150,023**

**Construction Cost TOTAL: \$ 1,151,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,151,000
Engineering/Survey/Testing:		20%	\$ 230,200
Mobilization		5%	\$ 57,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 115,100
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,554,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-27
Name:	Oak Grove (8)	This project consists of the construction of a new five-lane undivided neighborhood connector.		
Limits:	1,025' S of Risinger to Buffalo Springs			
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)			
Ultimate Class:	5 Lane Undivided Neighborhood Connector			
Length (lf):	3,110			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	10,194	cy	\$ 17.00	\$ 173,296
233	6" Lime Stabilization (with Lime @ 32#/sy)	20,042	sy	\$ 4.00	\$ 80,169
333	11" Concrete Pavement	19,351	sy	\$ 55.00	\$ 1,064,311
433	6" Curb and Gutter	6,220	lf	\$ 7.00	\$ 43,540
533	4" Topsoil	11,749	sy	\$ 5.00	\$ 58,744
633	10' Concrete Sidewalk	62,200	sf	\$ 6.00	\$ 373,200
731	Auxiliary Lanes and Median Openings Allotment	530	sf	\$ 59.00	\$ 31,277

**Paving Construction Cost Subtotal: \$ 1,824,537**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 54,736
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 54,736
✓ Roadway Drainage	Standard Internal System	30%	\$ 547,361
✓ Illumination		2%	\$ 45,370
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 109,472
✓ Sewer	Minor Adjustments	4%	\$ 72,981
✓ Establish Turf / Erosion Control		2%	\$ 36,491
✓ Basic Landscaping		4%	\$ 72,981
Other:		\$0	\$ -

**Allowance Subtotal: \$ 994,130**

**Paving and Allowance Subtotal: \$ 2,818,667**

**Construction Contingency: 15% \$ 422,800**

**Construction Cost TOTAL: \$ 3,242,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,242,000
Engineering/Survey/Testing:		20%	\$ 648,400
Mobilization		5%	\$ 162,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 648,400

**Impact Fee Project Cost TOTAL: \$ 4,701,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-28
Name:	Oak Grove (9)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
Limits:	Buffalo Springs to McPherson		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	830		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	2,721	cy	\$ 17.00	\$ 46,249
233	6" Lime Stabilization (with Lime @ 32#/sy)	5,349	sy	\$ 4.00	\$ 21,396
333	11" Concrete Pavement	5,164	sy	\$ 55.00	\$ 284,044
433	6" Curb and Gutter	1,660	lf	\$ 7.00	\$ 11,620
533	4" Topsoil	3,136	sy	\$ 5.00	\$ 15,678
633	10' Concrete Sidewalk	16,600	sf	\$ 6.00	\$ 99,600
731	Auxiliary Lanes and Median Openings Allotment	141	sf	\$ 59.00	\$ 8,347

**Paving Construction Cost Subtotal: \$ 486,934**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 14,608
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 14,608
✓ Pavement Markings/Markers		3%	\$ 14,608
✓ Roadway Drainage	Standard Internal System	30%	\$ 146,080
✓ Illumination		2%	\$ 12,108
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 29,216
✓ Sewer	Minor Adjustments	4%	\$ 19,477
✓ Establish Turf / Erosion Control		2%	\$ 9,739
✓ Basic Landscaping		4%	\$ 19,477
Other:		\$0	\$ -

**Allowance Subtotal: \$ 279,922**

**Paving and Allowance Subtotal: \$ 766,857**

**Construction Contingency: 15% \$ 115,029**

**Construction Cost TOTAL: \$ 882,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 882,000
Engineering/Survey/Testing:		20%	\$ 176,400
Mobilization		5%	\$ 44,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 88,200

**Impact Fee Project Cost TOTAL: \$ 1,191,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-29
<b>Name:</b>	Oak Grove (10)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
<b>Limits:</b>	McPherson to Oak Grove E		
<b>Impact Fee Class:</b>	NCO-L2-T0-TWLT-P0-BOP (110)		
<b>Ultimate Class:</b>	5 Lane Undivided Neighborhood Connector		
<b>Length (lf):</b>	2,340		
<b>Service Area(s):</b>	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	7,670	cy	\$ 17.00	\$ 130,390
233	6" Lime Stabilization (with Lime @ 32#/sy)	15,080	sy	\$ 4.00	\$ 60,320
333	11" Concrete Pavement	14,560	sy	\$ 55.00	\$ 800,800
433	6" Curb and Gutter	4,680	lf	\$ 7.00	\$ 32,760
533	4" Topsoil	8,840	sy	\$ 5.00	\$ 44,200
633	10' Concrete Sidewalk	46,800	sf	\$ 6.00	\$ 280,800
731	Auxiliary Lanes and Median Openings Allotment	399	sf	\$ 59.00	\$ 23,533

**Paving Construction Cost Subtotal: \$ 1,372,803**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 41,184
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 41,184
✓ Pavement Markings/Markers		3%	\$ 41,184
✓ Roadway Drainage	Standard Internal System	30%	\$ 411,841
✓ Illumination		2%	\$ 34,137
✓ Special Drainage Structures	Minor Stream Crossing(s)	\$ 77,000	\$ 77,000
✓ Water	Minor Adjustments	6%	\$ 82,368
✓ Sewer	Minor Adjustments	4%	\$ 54,912
✓ Establish Turf / Erosion Control		2%	\$ 27,456
✓ Basic Landscaping		4%	\$ 54,912
Other:		\$0	\$ -

**Allowance Subtotal: \$ 866,179**

**Paving and Allowance Subtotal: \$ 2,238,982**

**Construction Contingency: 15% \$ 335,847**

**Construction Cost TOTAL: \$ 2,575,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 2,575,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 515,000
<b>Mobilization</b>		5%	\$ 128,750
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	Existing Alignment	10%	\$ 257,500

**Impact Fee Project Cost TOTAL: \$ 3,476,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-30
Name:	Stone (1)	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:	Oak Grove E to Nelson		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,755		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,959	cy	\$ 17.00	\$ 135,301
230	6" Lime Stabilization (with Lime @ 32#/sy)	15,306	sy	\$ 4.00	\$ 61,222
330	11" Concrete Pavement	14,081	sy	\$ 55.00	\$ 774,461
430	6" Curb and Gutter	11,020	lf	\$ 7.00	\$ 77,140
530	4" Topsoil	13,469	sy	\$ 5.00	\$ 67,344
630	10' Concrete Sidewalk	55,100	sf	\$ 6.00	\$ 330,600
728	Auxiliary Lanes and Median Openings Allotment	1,106	sf	\$ 59.00	\$ 65,264

**Paving Construction Cost Subtotal: \$ 1,511,333**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 45,340
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 45,340
✓ Pavement Markings/Markers		3%	\$ 45,340
✓ Roadway Drainage	Standard Internal System	30%	\$ 453,400
✓ Illumination		2%	\$ 37,582
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 90,680
✓ Sewer	Minor Adjustments	4%	\$ 60,453
✓ Establish Turf / Erosion Control		2%	\$ 30,227
✓ Basic Landscaping		4%	\$ 60,453
Other:		\$0	\$ -

**Allowance Subtotal: \$ 868,815**

**Paving and Allowance Subtotal: \$ 2,380,148**

**Construction Contingency: 15% \$ 357,022**

**Construction Cost TOTAL: \$ 2,738,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,738,000
Engineering/Survey/Testing:		20%	\$ 547,600
Mobilization		5%	\$ 136,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 273,800

**Impact Fee Project Cost TOTAL: \$ 3,696,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-31
Name:	Stone (2)	<b>This project consists of the construction of a new four-lane divided commercial connector.</b>		
Limits:	Nelson to FM 1187			
Impact Fee Class:	CCO-L2-T0-NTMS-P0-BOP (110)			
Ultimate Class:	4 Lane Divided Commercial Connector			
Length (lf):	4,745			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
123	Unclassified Street Excavation	14,235	cy	\$ 17.00	\$ 241,995
223	6" Lime Stabilization (with Lime @ 32#/sy)	27,416	sy	\$ 4.00	\$ 109,662
323	11" Concrete Pavement	25,307	sy	\$ 55.00	\$ 1,391,867
423	6" Curb and Gutter	18,980	lf	\$ 7.00	\$ 132,860
523	4" Topsoil	22,143	sy	\$ 5.00	\$ 110,717
623	10' Concrete Sidewalk	94,900	sf	\$ 6.00	\$ 569,400
721	Auxiliary Lanes and Median Openings Allotment	1,905	sf	\$ 59.00	\$ 112,406

**Paving Construction Cost Subtotal: \$ 2,668,907**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 80,067
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 80,067
✓ Roadway Drainage	Standard Internal System	30%	\$ 800,672
✓ Illumination		2%	\$ 66,367
✓ Special Drainage Structures	Drainage Crossing(s)	\$ 1,088,000	\$ 1,088,000
✓ Water	Minor Adjustments	6%	\$ 160,134
✓ Sewer	Minor Adjustments	4%	\$ 106,756
✓ Establish Turf / Erosion Control		2%	\$ 53,378
✓ Basic Landscaping		4%	\$ 106,756
Other:		\$0	\$ -

**Allowance Subtotal: \$ 2,542,198**

**Paving and Allowance Subtotal: \$ 5,211,105**

**Construction Contingency: 15% \$ 781,666**

**Construction Cost TOTAL: \$ 5,993,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,993,000
Engineering/Survey/Testing:		20%	\$ 1,198,600
Mobilization		5%	\$ 299,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,198,600

**Impact Fee Project Cost TOTAL: \$ 8,690,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-32
Name:	Stone (3)	<b>This project consists of the construction of a new five-lane undivided commercial connector.</b>	
Limits:	FM 1187 to McAlister		
Impact Fee Class:	CCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Commercial Connector		
Length (lf):	2,325		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	7,879	cy	\$ 17.00	\$ 133,946
225	6" Lime Stabilization (with Lime @ 32#/sy)	15,500	sy	\$ 4.00	\$ 62,000
325	11" Concrete Pavement	14,983	sy	\$ 55.00	\$ 824,083
425	6" Curb and Gutter	4,650	lf	\$ 7.00	\$ 32,550
525	4" Topsoil	8,267	sy	\$ 5.00	\$ 41,333
625	10' Concrete Sidewalk	46,500	sf	\$ 6.00	\$ 279,000
723	Auxiliary Lanes and Median Openings Allotment	396	sf	\$ 59.00	\$ 23,382

**Paving Construction Cost Subtotal: \$ 1,396,295**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 41,889
√ Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers		3%	\$ 41,889
√ Roadway Drainage	Standard Internal System	30%	\$ 418,888
√ Illumination		2%	\$ 34,721
√ Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 83,778
√ Sewer	Minor Adjustments	4%	\$ 55,852
√ Establish Turf / Erosion Control		2%	\$ 27,926
√ Basic Landscaping		4%	\$ 55,852
Other:		\$0	\$ -

**Allowance Subtotal: \$ 760,794**

**Paving and Allowance Subtotal: \$ 2,157,089**

**Construction Contingency: 15% \$ 323,563**

**Construction Cost TOTAL: \$ 2,481,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,481,000
Engineering/Survey/Testing:		20%	\$ 496,200
Mobilization		5%	\$ 124,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 496,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,597,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>Z-33</b>
<b>Name:</b>	Stone (4)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
<b>Limits:</b>	McAlister to Alsbury		
<b>Impact Fee Class:</b>	CCO-L2-T0-TWLT-P0-BOP (110)		
<b>Ultimate Class:</b>	5 Lane Undivided Commercial Connector		
<b>Length (lf):</b>	3,260		
<b>Service Area(s):</b>	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
125	Unclassified Street Excavation	11,048	cy	\$ 17.00	\$ 187,812
225	6" Lime Stabilization (with Lime @ 32#/sy)	21,733	sy	\$ 4.00	\$ 86,933
325	11" Concrete Pavement	21,009	sy	\$ 55.00	\$ 1,155,489
425	6" Curb and Gutter	6,520	lf	\$ 7.00	\$ 45,640
525	4" Topsoil	11,591	sy	\$ 5.00	\$ 57,956
625	10' Concrete Sidewalk	65,200	sf	\$ 6.00	\$ 391,200
723	Auxiliary Lanes and Median Openings Allotment	556	sf	\$ 59.00	\$ 32,785

**Paving Construction Cost Subtotal: \$ 1,957,815**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 58,734
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 58,734
✓ Roadway Drainage	Standard Internal System	30%	\$ 587,345
✓ Illumination		2%	\$ 48,684
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 117,469
✓ Sewer	Minor Adjustments	4%	\$ 78,313
✓ Establish Turf / Erosion Control		2%	\$ 39,156
✓ Basic Landscaping		4%	\$ 78,313
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,066,748**

**Paving and Allowance Subtotal: \$ 3,024,563**

**Construction Contingency: 15% \$ 453,685**

**Construction Cost TOTAL: \$ 3,479,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 3,479,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 695,800
<b>Mobilization</b>		5%	\$ 173,950
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 695,800
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 5,045,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-34
Name:	Wichita (3)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	Shelby to Oak Grove Shelby		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,765		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,988	cy	\$ 17.00	\$ 135,792
230	6" Lime Stabilization (with Lime @ 32#/sy)	15,361	sy	\$ 4.00	\$ 61,444
330	11" Concrete Pavement	14,132	sy	\$ 55.00	\$ 777,272
430	6" Curb and Gutter	11,060	lf	\$ 7.00	\$ 77,420
530	4" Topsoil	13,518	sy	\$ 5.00	\$ 67,589
630	10' Concrete Sidewalk	55,300	sf	\$ 6.00	\$ 331,800
728	Auxiliary Lanes and Median Openings Allotment	1,110	sf	\$ 59.00	\$ 65,501

**Paving Construction Cost Subtotal: \$ 1,516,819**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 45,505
√ Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers		3%	\$ 45,505
√ Roadway Drainage	Standard Internal System	30%	\$ 455,046
√ Illumination		2%	\$ 37,718
√ Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 91,009
√ Sewer	Minor Adjustments	4%	\$ 60,673
√ Establish Turf / Erosion Control		2%	\$ 30,336
√ Basic Landscaping		4%	\$ 60,673
Other:		\$0	\$ -

**Allowance Subtotal: \$ 826,464**

**Paving and Allowance Subtotal: \$ 2,343,283**

**Construction Contingency: 15% \$ 351,492**

**Construction Cost TOTAL: \$ 2,695,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,695,000
Engineering/Survey/Testing:		20%	\$ 539,000
Mobilization		5%	\$ 134,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 539,000

**Impact Fee Project Cost TOTAL: \$ 3,908,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-35
Name:	Wichita (4)	<b>This project consists of the construction of the southern lanes to complete the four-lane divided neighborhood connector.</b>	
Limits:	Race to 795' W of Race		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	795		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
131	Unclassified Street Excavation	1,148	cy	\$ 17.00	\$ 19,522
231	6" Lime Stabilization (with Lime @ 32#/sy)	2,208	sy	\$ 4.00	\$ 8,833
331	11" Concrete Pavement	2,032	sy	\$ 55.00	\$ 111,742
431	6" Curb and Gutter	1,590	lf	\$ 7.00	\$ 11,130
531	4" Topsoil	1,943	sy	\$ 5.00	\$ 9,717
631	10' Concrete Sidewalk	7,950	sf	\$ 6.00	\$ 47,700
729	Auxiliary Lanes and Median Openings Allotment	319	sf	\$ 59.00	\$ 18,833

**Paving Construction Cost Subtotal: \$ 227,476**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 6,824
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 6,824
✓ Pavement Markings/Markers		3%	\$ 6,824
✓ Roadway Drainage	Standard Internal System	30%	\$ 68,243
✓ Illumination		2%	\$ 5,657
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 13,649
✓ Sewer	Minor Adjustments	4%	\$ 9,099
✓ Establish Turf / Erosion Control		2%	\$ 4,550
✓ Basic Landscaping		4%	\$ 9,099
Other:		\$0	\$ -

**Allowance Subtotal: \$ 130,769**

**Paving and Allowance Subtotal: \$ 358,245**

**Construction Contingency: 15% \$ 53,737**

**Construction Cost TOTAL: \$ 412,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 412,000
Engineering/Survey/Testing:		20%	\$ 82,400
Mobilization		5%	\$ 20,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 41,200

**Impact Fee Project Cost TOTAL: \$ 556,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-36
Name:	Wichita (5)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
Limits:	795' W of Race to McPherson		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	4,445		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	12,841	cy	\$ 17.00	\$ 218,299
230	6" Lime Stabilization (with Lime @ 32#/sy)	24,694	sy	\$ 4.00	\$ 98,778
330	11" Concrete Pavement	22,719	sy	\$ 55.00	\$ 1,249,539
430	6" Curb and Gutter	17,780	lf	\$ 7.00	\$ 124,460
530	4" Topsoil	21,731	sy	\$ 5.00	\$ 108,656
630	10' Concrete Sidewalk	88,900	sf	\$ 6.00	\$ 533,400
728	Auxiliary Lanes and Median Openings Allotment	1,785	sf	\$ 59.00	\$ 105,299

**Paving Construction Cost Subtotal: \$ 2,438,430**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 73,153
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 73,153
✓ Roadway Drainage	Standard Internal System	30%	\$ 731,529
✓ Illumination		2%	\$ 60,636
✓ Special Drainage Structures	Minor Stream Crossing(s)	\$ 247,500	\$ 247,500
✓ Water	Minor Adjustments	6%	\$ 146,306
✓ Sewer	Minor Adjustments	4%	\$ 97,537
✓ Establish Turf / Erosion Control		2%	\$ 48,769
✓ Basic Landscaping		4%	\$ 97,537
Other:		\$0	\$ -

**Allowance Subtotal: \$ 1,576,119**

**Paving and Allowance Subtotal: \$ 4,014,550**

**Construction Contingency: 15% \$ 602,182**

**Construction Cost TOTAL: \$ 4,617,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,617,000
Engineering/Survey/Testing:		20%	\$ 923,400
Mobilization		5%	\$ 230,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 923,400

**Impact Fee Project Cost TOTAL: \$ 6,695,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>Z-37</b>
<b>Name:</b>	Wichita (6)	<b>This project consists of the construction of a new four-lane divided neighborhood connector.</b>	
<b>Limits:</b>	McPherson to Nicole		
<b>Impact Fee Class:</b>	NCO-L2-T0-NTMS-P0-BOP (110)		
<b>Ultimate Class:</b>	4 Lane Divided Neighborhood Connector		
<b>Length (lf):</b>	5,070		
<b>Service Area(s):</b>	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	14,647	cy	\$ 17.00	\$ 248,993
230	6" Lime Stabilization (with Lime @ 32#/sy)	28,167	sy	\$ 4.00	\$ 112,667
330	11" Concrete Pavement	25,913	sy	\$ 55.00	\$ 1,425,233
430	6" Curb and Gutter	20,280	lf	\$ 7.00	\$ 141,960
530	4" Topsoil	24,787	sy	\$ 5.00	\$ 123,933
630	10' Concrete Sidewalk	101,400	sf	\$ 6.00	\$ 608,400
728	Auxiliary Lanes and Median Openings Allotment	2,036	sf	\$ 59.00	\$ 120,105

**Paving Construction Cost Subtotal: \$ 2,781,292**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 83,439
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 83,439
✓ Roadway Drainage	Standard Internal System	30%	\$ 834,388
✓ Illumination		2%	\$ 69,161
✓ Special Drainage Structures	Drainage Crossing(s)	\$ 627,000	\$ 627,000
✓ Water	Minor Adjustments	6%	\$ 166,878
✓ Sewer	Minor Adjustments	4%	\$ 111,252
✓ Establish Turf / Erosion Control		2%	\$ 55,626
✓ Basic Landscaping		4%	\$ 111,252
Other:		\$0	\$ -

**Allowance Subtotal: \$ 2,142,433**

**Paving and Allowance Subtotal: \$ 4,923,725**

**Construction Contingency: 15% \$ 738,559**

**Construction Cost TOTAL: \$ 5,663,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 5,663,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 1,132,600
<b>Mobilization</b>		5%	\$ 283,150
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 1,132,600

**Impact Fee Project Cost TOTAL: \$ 8,211,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. <b>Z-38</b>
<b>Name:</b>	Oak Grove S (1)	<b>This project consists of the construction of a new five-lane undivided neighborhood connector.</b>	
<b>Limits:</b>	Nelson to 310' S of Nelson		
<b>Impact Fee Class:</b>	NCO-L2-T0-TWLT-P0-BOP (110)		
<b>Ultimate Class:</b>	5 Lane Undivided Neighborhood Connector		
<b>Length (lf):</b>	310		
<b>Service Area(s):</b>	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	1,016	cy	\$ 17.00	\$ 17,274
233	6" Lime Stabilization (with Lime @ 32#/sy)	1,998	sy	\$ 4.00	\$ 7,991
333	11" Concrete Pavement	1,929	sy	\$ 55.00	\$ 106,089
433	6" Curb and Gutter	620	lf	\$ 7.00	\$ 4,340
533	4" Topsoil	1,171	sy	\$ 5.00	\$ 5,856
633	10' Concrete Sidewalk	6,200	sf	\$ 6.00	\$ 37,200
731	Auxiliary Lanes and Median Openings Allotment	53	sf	\$ 59.00	\$ 3,118

**Paving Construction Cost Subtotal: \$ 181,867**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 5,456
Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 5,456
✓ Roadway Drainage	Standard Internal System	30%	\$ 54,560
✓ Illumination		2%	\$ 4,522
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 10,912
✓ Sewer	Minor Adjustments	4%	\$ 7,275
✓ Establish Turf / Erosion Control		2%	\$ 3,637
✓ Basic Landscaping		4%	\$ 7,275
Other:		\$0	\$ -

**Allowance Subtotal: \$ 99,093**

**Paving and Allowance Subtotal: \$ 280,960**

**Construction Contingency: 15% \$ 42,144**

**Construction Cost TOTAL: \$ 324,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
<b>Construction:</b>		-	\$ 324,000
<b>Engineering/Survey/Testing:</b>		20%	\$ 64,800
<b>Mobilization</b>		5%	\$ 16,200
<b>Previous City contribution</b>			\$ -
<b>Other</b>			
<b>ROW/Easement Acquisition:</b>	New Roadway Alignment	20%	\$ 64,800

**Impact Fee Project Cost TOTAL: \$ 470,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-39
Name:	Oak Grove S (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a five-lane undivided neighborhood connector.</b>	
Limits:	310' S of Nelson to 260' S of Smallwood		
Impact Fee Class:	NCO-L2-T0-TWLT-P0-BOP (110)		
Ultimate Class:	5 Lane Undivided Neighborhood Connector		
Length (lf):	820		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
133	Unclassified Street Excavation	2,688	cy	\$ 17.00	\$ 45,692
233	6" Lime Stabilization (with Lime @ 32#/sy)	5,284	sy	\$ 4.00	\$ 21,138
333	11" Concrete Pavement	5,102	sy	\$ 55.00	\$ 280,622
433	6" Curb and Gutter	1,640	lf	\$ 7.00	\$ 11,480
533	4" Topsoil	3,098	sy	\$ 5.00	\$ 15,489
633	10' Concrete Sidewalk	16,400	sf	\$ 6.00	\$ 98,400
731	Auxiliary Lanes and Median Openings Allotment	140	sf	\$ 59.00	\$ 8,247

**Paving Construction Cost Subtotal: \$ 481,068**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 14,432
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 14,432
✓ Pavement Markings/Markers		3%	\$ 14,432
✓ Roadway Drainage	Standard Internal System	30%	\$ 144,320
✓ Illumination		2%	\$ 11,963
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 28,864
✓ Sewer	Minor Adjustments	4%	\$ 19,243
✓ Establish Turf / Erosion Control		2%	\$ 9,621
✓ Basic Landscaping		4%	\$ 19,243
Other:		\$0	\$ -

**Allowance Subtotal: \$ 276,550**

**Paving and Allowance Subtotal: \$ 757,617**

**Construction Contingency: 15% \$ 113,643**

**Construction Cost TOTAL: \$ 872,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 872,000
Engineering/Survey/Testing:		20%	\$ 174,400
Mobilization		5%	\$ 43,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 87,200
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 1,177,000</b>

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-40
Name:	Wildcat Way (1)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>	
Limits:	FM 1187 to Burleson Retta		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	8,165		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	16,784	cy	\$ 17.00	\$ 285,321
241	6" Lime Stabilization (with Lime @ 32#/sy)	32,660	sy	\$ 4.00	\$ 130,640
341	11" Concrete Pavement	30,846	sy	\$ 55.00	\$ 1,696,506
441	6" Curb and Gutter	16,330	lf	\$ 7.00	\$ 114,310
541	4" Topsoil	23,588	sy	\$ 5.00	\$ 117,939
641	10' Concrete Sidewalk	163,300	sf	\$ 6.00	\$ 979,800
739	Auxiliary Lanes and Median Openings Allotment	1,392	sf	\$ 59.00	\$ 82,114

**Paving Construction Cost Subtotal: \$ 3,406,630**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 102,199
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 102,199
✓ Roadway Drainage	Standard Internal System	30%	\$ 1,021,989
✓ Illumination		2%	\$ 84,712
✓ Special Drainage Structures	Drainage Crossing(s)	\$ 654,500	\$ 654,500
✓ Water	Minor Adjustments	6%	\$ 204,398
✓ Sewer	Minor Adjustments	4%	\$ 136,265
✓ Establish Turf / Erosion Control		2%	\$ 68,133
✓ Basic Landscaping		4%	\$ 136,265
Other:		\$0	\$ -

**Allowance Subtotal: \$ 2,510,659**

**Paving and Allowance Subtotal: \$ 5,917,289**

**Construction Contingency: 15% \$ 887,593**

**Construction Cost TOTAL: \$ 6,805,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,805,000
Engineering/Survey/Testing:		20%	\$ 1,361,000
Mobilization		5%	\$ 340,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,361,000

**Impact Fee Project Cost TOTAL: \$ 9,867,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-41
Name:	Wildcat Way (2)	<b>This project consists of the reconstruction of the existing asphalt facility as a three-lane undivided neighborhood connector.</b>	
Limits:	Burleson Retta to 455' S of Thomas Crossing		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	2,315		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	4,759	cy	\$ 17.00	\$ 80,896
241	6" Lime Stabilization (with Lime @ 32#/sy)	9,260	sy	\$ 4.00	\$ 37,040
341	11" Concrete Pavement	8,746	sy	\$ 55.00	\$ 481,006
441	6" Curb and Gutter	4,630	lf	\$ 7.00	\$ 32,410
541	4" Topsoil	6,688	sy	\$ 5.00	\$ 33,439
641	10' Concrete Sidewalk	46,300	sf	\$ 6.00	\$ 277,800
739	Auxiliary Lanes and Median Openings Allotment	395	sf	\$ 59.00	\$ 23,282

**Paving Construction Cost Subtotal: \$ 965,872**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 28,976
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 28,976
✓ Pavement Markings/Markers		3%	\$ 28,976
✓ Roadway Drainage	Standard Internal System	30%	\$ 289,762
✓ Illumination		2%	\$ 24,018
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 57,952
✓ Sewer	Minor Adjustments	4%	\$ 38,635
✓ Establish Turf / Erosion Control		2%	\$ 19,317
✓ Basic Landscaping		4%	\$ 38,635
Other:		\$0	\$ -

**Allowance Subtotal: \$ 555,248**

**Paving and Allowance Subtotal: \$ 1,521,120**

**Construction Contingency: 15% \$ 228,168**

**Construction Cost TOTAL: \$ 1,750,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,750,000
Engineering/Survey/Testing:		20%	\$ 350,000
Mobilization		5%	\$ 87,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 175,000

**Impact Fee Project Cost TOTAL: \$ 2,363,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-42
Name:	Wildcat Way (3)	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>	
Limits:	Abner Lee to 615' S of Abner Lee		
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)		
Ultimate Class:	3 Lane Undivided Neighborhood Connector		
Length (lf):	615		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	1,264	cy	\$ 17.00	\$ 21,491
241	6" Lime Stabilization (with Lime @ 32#/sy)	2,460	sy	\$ 4.00	\$ 9,840
341	11" Concrete Pavement	2,323	sy	\$ 55.00	\$ 127,783
441	6" Curb and Gutter	1,230	lf	\$ 7.00	\$ 8,610
541	4" Topsoil	1,777	sy	\$ 5.00	\$ 8,883
641	10' Concrete Sidewalk	12,300	sf	\$ 6.00	\$ 73,800
739	Auxiliary Lanes and Median Openings Allotment	105	sf	\$ 59.00	\$ 6,185

**Paving Construction Cost Subtotal: \$ 256,592**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 7,698
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 7,698
✓ Roadway Drainage	Standard Internal System	30%	\$ 76,978
✓ Illumination		2%	\$ 6,381
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 15,396
✓ Sewer	Minor Adjustments	4%	\$ 10,264
✓ Establish Turf / Erosion Control		2%	\$ 5,132
✓ Basic Landscaping		4%	\$ 10,264
Other:		\$0	\$ -

**Allowance Subtotal: \$ 139,809**

**Paving and Allowance Subtotal: \$ 396,401**

**Construction Contingency: 15% \$ 59,460**

**Construction Cost TOTAL: \$ 456,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 456,000
Engineering/Survey/Testing:		20%	\$ 91,200
Mobilization		5%	\$ 22,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 91,200

**Impact Fee Project Cost TOTAL: \$ 661,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No.	Z-43
Name:	Abner Drive	<b>This project consists of the construction of a new three-lane undivided neighborhood connector.</b>		
Limits:	1,195' W of Wildcat Way to 260' W of Wildcat Way			
Impact Fee Class:	NCO-L1-T0-TWLT-P0-BOP (80)			
Ultimate Class:	3 Lane Undivided Neighborhood Connector			
Length (lf):	935			
Service Area(s):	Z			

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
141	Unclassified Street Excavation	1,922	cy	\$ 17.00	\$ 32,673
241	6" Lime Stabilization (with Lime @ 32#/sy)	3,740	sy	\$ 4.00	\$ 14,960
341	11" Concrete Pavement	3,532	sy	\$ 55.00	\$ 194,272
441	6" Curb and Gutter	1,870	lf	\$ 7.00	\$ 13,090
541	4" Topsoil	2,701	sy	\$ 5.00	\$ 13,506
641	10' Concrete Sidewalk	18,700	sf	\$ 6.00	\$ 112,200
739	Auxiliary Lanes and Median Openings Allotment	159	sf	\$ 59.00	\$ 9,403

**Paving Construction Cost Subtotal: \$ 390,104**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 11,703
✓ Traffic Control	None Anticipated	0%	\$ -
✓ Pavement Markings/Markers		3%	\$ 11,703
✓ Roadway Drainage	Standard Internal System	30%	\$ 117,031
✓ Illumination		2%	\$ 9,701
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 23,406
✓ Sewer	Minor Adjustments	4%	\$ 15,604
✓ Establish Turf / Erosion Control		2%	\$ 7,802
✓ Basic Landscaping		4%	\$ 15,604
Other:		\$0	\$ -

**Allowance Subtotal: \$ 212,555**

**Paving and Allowance Subtotal: \$ 602,659**

**Construction Contingency: 15% \$ 90,399**

**Construction Cost TOTAL: \$ 694,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 694,000
Engineering/Survey/Testing:		20%	\$ 138,800
Mobilization		5%	\$ 34,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 138,800

**Impact Fee Project Cost TOTAL: \$ 1,006,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-44
Name:	Forest Hill	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:	645' N of Chambers Creek to Shelby		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,395		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	6,919	cy	\$ 17.00	\$ 117,621
230	6" Lime Stabilization (with Lime @ 32#/sy)	13,306	sy	\$ 4.00	\$ 53,222
330	11" Concrete Pavement	12,241	sy	\$ 55.00	\$ 673,261
430	6" Curb and Gutter	9,580	lf	\$ 7.00	\$ 67,060
530	4" Topsoil	11,709	sy	\$ 5.00	\$ 58,544
630	10' Concrete Sidewalk	47,900	sf	\$ 6.00	\$ 287,400
728	Auxiliary Lanes and Median Openings Allotment	962	sf	\$ 59.00	\$ 56,736

**Paving Construction Cost Subtotal: \$ 1,313,845**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 39,415
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 39,415
✓ Pavement Markings/Markers		3%	\$ 39,415
✓ Roadway Drainage	Standard Internal System	30%	\$ 394,153
✓ Illumination		2%	\$ 32,671
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 78,831
✓ Sewer	Minor Adjustments	4%	\$ 52,554
✓ Establish Turf / Erosion Control		2%	\$ 26,277
✓ Basic Landscaping		4%	\$ 52,554
Other:		\$0	\$ -

**Allowance Subtotal: \$ 755,286**

**Paving and Allowance Subtotal: \$ 2,069,131**

**Construction Contingency: 15% \$ 310,370**

**Construction Cost TOTAL: \$ 2,380,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,380,000
Engineering/Survey/Testing:		20%	\$ 476,000
Mobilization		5%	\$ 119,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 238,000

**Impact Fee Project Cost TOTAL: \$ 3,213,000**

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**City of Fort Worth**  
**2017 Transportation Impact Fee Study**  
**Conceptual Level Project Cost Projection**

Kimley-Horn and Associates, Inc.

updated: 9/29/2017

Project Information:		Description:	Project No. Z-45
Name:	Rendon	<b>This project consists of the reconstruction of the existing asphalt facility as a four-lane divided neighborhood connector.</b>	
Limits:	Shelby to Oak Grove Shelby		
Impact Fee Class:	NCO-L2-T0-NTMS-P0-BOP (110)		
Ultimate Class:	4 Lane Divided Neighborhood Connector		
Length (lf):	2,555		
Service Area(s):	Z		

**Roadway Construction Cost Projection**

No.	Item Description	Quantity	Unit	Unit Price	Item Cost
130	Unclassified Street Excavation	7,381	cy	\$ 17.00	\$ 125,479
230	6" Lime Stabilization (with Lime @ 32#/sy)	14,194	sy	\$ 4.00	\$ 56,778
330	11" Concrete Pavement	13,059	sy	\$ 55.00	\$ 718,239
430	6" Curb and Gutter	10,220	lf	\$ 7.00	\$ 71,540
530	4" Topsoil	12,491	sy	\$ 5.00	\$ 62,456
630	10' Concrete Sidewalk	51,100	sf	\$ 6.00	\$ 306,600
728	Auxiliary Lanes and Median Openings Allotment	1,026	sf	\$ 59.00	\$ 60,526

**Paving Construction Cost Subtotal: \$ 1,401,618**

**Major Construction Component Allowances:**

Item Description	Notes	Allowance	Item Cost
✓ Prep ROW		3%	\$ 42,049
✓ Traffic Control	Construction Phase Traffic Control	3%	\$ 42,049
✓ Pavement Markings/Markers		3%	\$ 42,049
✓ Roadway Drainage	Standard Internal System	30%	\$ 420,485
✓ Illumination		2%	\$ 34,854
Special Drainage Structures	None Anticipated	\$ -	\$ -
✓ Water	Minor Adjustments	6%	\$ 84,097
✓ Sewer	Minor Adjustments	4%	\$ 56,065
✓ Establish Turf / Erosion Control		2%	\$ 28,032
✓ Basic Landscaping		4%	\$ 56,065
Other:		\$0	\$ -

**Allowance Subtotal: \$ 805,743**

**Paving and Allowance Subtotal: \$ 2,207,361**

**Construction Contingency: 15% \$ 331,104**

**Construction Cost TOTAL: \$ 2,539,000**

**Impact Fee Project Cost Summary**

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,539,000
Engineering/Survey/Testing:		20%	\$ 507,800
Mobilization		5%	\$ 126,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 253,900
<b>Impact Fee Project Cost TOTAL:</b>			<b>\$ 3,428,000</b>

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## **Appendix B – Transportation Impact Fee TIP Service Units of Supply**

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area A

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL <sup>1</sup>	VEH-MI TOTAL DEMAND PK-HR <sup>2</sup>	EXCESS CAPACITY PK-HR VEH-MI <sup>3</sup>	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
A-1	Litsey (1)	IH-35 W to 2,620' E of IH-35 W	0.50	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,300	0	1,300	\$ 4,054,000	\$ 4,054,000
A-2	Litsey (2)	2,435' W of Cleaveland Gibbs of Cleveland Gibbs	0.27	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	81	100%	650	702	22	680	\$ 2,107,000	\$ 2,107,000
A-3	Litsey (3)	1,300' W of Cleveland Gibbs to Cleveland Gibbs	0.25	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	82	100%	650	650	21	630	\$ 1,866,000	\$ 1,866,000
A-4	Litsey (4)	Cleveland Gibbs to 875' E of Bluffdale	0.80	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	445	100%	700	2,240	356	1,884	\$ 3,264,432	\$ 3,264,432
A-5	Eagle (3)	Beach to 955' E of Beach	0.18	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	504	0	504	\$ 1,385,000	\$ 1,385,000
A-6	Henrietta Creek (1)	2545' W of Park Vista to 330' E of Park Vista	0.54	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,404	0	1,404	\$ 4,449,000	\$ 4,449,000
A-7	Henrietta Creek (2)	90' W of Seventeen Lakes to Independence Pkwy	0.31	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	259	100%	700	868	80	788	\$ 1,172,000	\$ 1,172,000
A-8	Westport (1)	IH-35 W NBFR to 640' E of IH-35 W NBFR	0.00	4	CCO-L2-T0-NTMS-P0-BOP (110)	Widening	1	100%	700	0	0	0	\$ 1,620,000	\$ 1,620,000
A-9	Westport (2)	640' E of IH-35 W NBFR to Old Denton	0.62	4	CCO-L2-T0-NTMS-P0-BOP (110)	Widening	1,476	100%	700	1,736	915	821	\$ 4,505,000	\$ 4,505,000
A-10	Westport (3)	Old Denton to Beach	0.49	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	827	100%	650	1,274	405	869	\$ 3,833,000	\$ 3,833,000
A-11	Westport (4)	Beach to Alta Vista	0.41	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,066	0	1,066	\$ 3,342,000	\$ 3,342,000
A-12	Westport (5)	495' W of SH 170 WBFR to SH 170 WBFR	0.09	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	234	0	234	\$ 767,000	\$ 767,000
A-13	Westport (6)	SH 170 EBFR to 625' W of Park Vista	0.40	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,040	0	1,040	\$ 3,257,000	\$ 3,257,000
A-14	Westport (7)	400' E of Park Vista to 1370' W of Independence	0.37	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	503	100%	700	1,036	186	850	\$ 1,388,000	\$ 1,388,000
A-15, D-1	Timberland (1)	485 E of Lilybrook to N Caylor	0.29	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	514	50%	700	406	75	331	\$ 2,086,000	\$ 1,043,000
A-16, D-2	Timberland (2)	N Caylor to 375' E of N Caylor	0.07	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	515	50%	700	98	18	80	\$ 504,000	\$ 252,000
A-17, D-3	Timberland (3)	375' E of N Caylor to Park Vista	0.22	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	516	50%	700	308	57	251	\$ 5,241,058	\$ 2,620,529
A-18, D-4	Timberland (4)	Park Vista to 355' E of Park Vista	0.07	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	87	50%	700	98	3	95	\$ 1,703,344	\$ 851,672
A-19, D-5	Timberland (5)	355' E of Park Vista to 425' E of Harvest Oaks	0.46	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	88	50%	700	644	20	624	\$ 1,694,000	\$ 847,000
A-20, D-6	Timberland (6)	425' E of Harvest Oaks to Main	0.10	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	50%	700	140	0	140	\$ 1,447,000	\$ 723,500
A-21	Old Denton (1)	Westport to 1095' S of Westport	0.21	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	870	100%	650	546	183	363	\$ 1,608,000	\$ 1,608,000
A-22	Old Denton (2)	1095' S of Westport to SH 170 WBFR	0.31	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	871	100%	700	868	270	598	\$ 1,176,000	\$ 1,176,000
A-23	Beach (1)	(Future) Litsey to 730' S of (Future) Litsey	0.14	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	364	0	364	\$ 1,130,000	\$ 1,130,000
A-24	Beach (2)	730' S of (Future) Litsey to 2,010' S of (Future) Litsey	0.24	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	233	100%	650	624	56	568	\$ 1,881,000	\$ 1,881,000
A-25	Beach (3)	Eagle to 800' S of Eagle	0.15	4	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)	Widening	234	100%	700	420	35	385	\$ 599,000	\$ 599,000
A-26	Beach (4)	800' S of Henrietta Creek to 1,830' S of Henrietta Creek	0.19	4	CCO-L2-T0-NTMS-P0-BLC (110)	New	New	100%	700	532	0	532	\$ 1,562,000	\$ 1,562,000
A-27	Beach (5)	1,350' N of Westport to Westport	0.26	4	CCO-L2-T0-NTMS-P0-BLC (110)	New	New	100%	700	728	0	728	\$ 2,047,000	\$ 2,047,000
A-28	Beach (6)	Westport to SH 170 WBFR	0.21	4	CCO-L2-T0-NTMS-P0-BLC (110)	New	New	100%	700	588	0	588	\$ 1,698,000	\$ 1,698,000
A-29, D-32	Beach (7)	SH 170 EBFR to 2,045' S of SH 170 EBFR	0.39	4	CCO-L3-T0-NTMS-P0-BLB (130) (W)	New	New	50%	700	546	0	546	\$ 3,415,000	\$ 1,707,500
A-30, D-33	Beach (8)	410' N of Saratoga Downs to Timberland	0.70	6	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Median	1,417	50%	700	1,470	496	974	\$ 1,285,000	\$ 642,500
A-31	Park Vista (1)	995' S of Henrietta Creek to 1,480' S of Henrietta Creek	0.09	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	117	0	117	\$ 522,000	\$ 522,000
A-32	Park Vista (2)	Keller Haslet to 415' N of Timberland	0.48	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	453	100%	700	1,344	217	1,127	\$ 1,781,000	\$ 1,781,000
A-33	Park Vista (3)	415' N of Timberland to Timberland	0.08		NCO-L2-T0-NTMS-P0-BOP (110)	Previous	454	100%	700	0	36	-36	\$ 1,701,548	\$ 1,701,548
A-34	Independence	Litsey to Henrietta Creek	1.15	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	2,990	0	2,990	\$ 10,147,000	\$ 10,147,000
SUBTOTAL										26,885	3,451	23,434	80,237,382	\$ 71,549,681

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA A \$ 71,573,456

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area AA

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
AA-1	Eagle	2,190' N of Eagle to Eagle	0.41	4	CCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	1,148	0	1,148	\$ 4,079,000	\$ 4,079,000
AA-2	Intermodal	FM 156 to Old Blue Mound	0.70	4	CCO-L3-T0-NTMS-P0-BOP (130) (W) (1/2	Widening	675	100%	700	1,960	473	1,488	\$ 2,804,000	\$ 2,804,000
AA-3, B-5	Keller Haslet (1)	965' E of John Day to 3,485' E of John Day	0.48	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	525	50%	700	672	126	546	\$ 4,055,000	\$ 2,027,500
AA-4	Keller Haslet (2)	2,825' W of FM 156 to Keller Haslet	0.09	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	525	100%	650	234	47	187	\$ 668,000	\$ 668,000
AA-5	Keller Haslet (3)	Keller Haslet to 125' W of FM 156	0.42	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,092	0	1,092	\$ 3,379,000	\$ 3,379,000
SUBTOTAL										5,106	646	4,460	14,985,000	\$ 12,957,500

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775  
TOTAL ROADWAY COST IN SERVICE AREA AA \$ 12,981,275

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area B

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
B-1	Eagle (1)	330' E of Graben to Sendera Ranch	0.84	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	50%	650	1,089	0	1,089	\$ 6,689,000	\$ 3,344,500
B-2	Eagle (2)	Sendera Ranch to 4,510' E of Sendera Ranch	0.85	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	50%	650	1,110	0	1,110	\$ 6,816,000	\$ 3,408,000
B-3	Rancho Canyon (1)	Sendera Ranch to Skytop	1.50	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	3,912	0	3,912	\$ 12,007,000	\$ 12,007,000
B-4	Rancho Canyon (2)	Cabo to John Day	0.19	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	538	0	538	\$ 1,436,000	\$ 1,436,000
AA-3, B-5	Keller Haslet (1)	965' E of John Day to 3,485' E of John Day	0.48	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	525	50%	700	668	125	543	\$ 4,055,000	\$ 2,027,500
B-6	Avondale Haslet (1)	US 287 NBFR to 1,715' E of US 287 NBFR	0.32	4	CCO-L2-T0-TWLT-P0-BOP (110)	Previous	1,070	100%	650	845	348	497	\$ 2,004,784	\$ 2,004,784
B-7	Avondale Haslet (2)	1,715' E of US 287 NBFR to Bates Aston	0.47	4	CCO (E) (4U)	Previous	1,070	100%	650	1,234	508	726	\$ 3,007,176	\$ 3,007,176
B-8	Avondale Haslet (3)	455' W of Willow Ranch to Willow Springs	0.35	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	846	100%	700	984	297	686	\$ 2,488,000	\$ 2,488,000
B-9	Avondale Haslet (4)	Willow Springs to Sendera Ranch	0.60	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	856	100%	700	1,673	511	1,162	\$ 4,232,000	\$ 4,232,000
B-10	Avondale Haslet (5)	Sendera Ranch to 1,015' E of Sendera Ranch	0.19	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	722	100%	700	538	139	399	\$ 1,362,000	\$ 1,362,000
B-11	Avondale Haslet (6)	1,015' E of Sendera Ranch to 1,360' W of John Day	0.68	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	722	100%	700	1,904	491	1,413	\$ 4,815,000	\$ 4,815,000
B-12	Blue Mound (1)	Blue Mound (Existing) to Willow Springs	1.30	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	3,627	0	3,627	\$ 9,667,000	\$ 9,667,000
B-13	Blue Mound (2)	Willow Springs to US 287 SBFM	0.35	4	CCO-L2-T0-NTMS-P0-BOP (110)	Widening	687	100%	700	992	243	748	\$ 2,572,000	\$ 2,572,000
B-14	Blue Mound (3)	US 287 NBFM to Wagley Robertson	0.65	4	CCO-L2-T0-NTMS-P0-BOP (110)	Widening	687	100%	700	1,816	446	1,371	\$ 4,710,000	\$ 4,710,000
B-15	Willow Springs (1)	Avondale Haslet to 200' S of Velda Kay	0.30	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	173	100%	650	793	53	740	\$ 2,310,000	\$ 2,310,000
B-16	Willow Springs (2)	200' S of Velda Kay to 1235' S of Singleton	0.51	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	173	100%	700	1,419	88	1,331	\$ 3,588,000	\$ 3,588,000
B-17	Willow Springs (3)	1235' S of Singleton to US 287 NBFR	0.47	4	CCO-L2-T0-NTMS-P0-BOP (110)	Widening	173	100%	700	1,315	81	1,234	\$ 4,761,000	\$ 4,761,000
B-18	Willow Springs (4)	US 287 NBFR to Blue Mound	0.27	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	173	100%	700	753	47	707	\$ 4,605,000	\$ 4,605,000
B-19	Willow Springs (5)	Blue Mound to 510' S of Twisting Star	0.94	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	731	100%	700	2,620	684	1,936	\$ 6,627,000	\$ 6,627,000
B-20	Sendera Ranch (1)	Eagle to Rancho Canyon	0.92	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	2,383	0	2,383	\$ 7,315,000	\$ 7,315,000
B-21	Sendera Ranch (2)	Rancho Canyon to Suncatcher	0.53	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	50%	650	686	0	686	\$ 4,209,000	\$ 2,104,500
B-22	Sendera Ranch (3)	Suncatcher to 275' S of Suncatcher	0.05	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	463	100%	700	146	24	122	\$ 193,000	\$ 193,000
B-23	Sendera Ranch (4)	Diamondback to 450' N of Cactus Spine	0.58	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	657	100%	700	1,636	384	1,252	\$ 2,159,000	\$ 2,159,000
B-24	Sendera Ranch (5)	450' N of Cactus Spine to Avondale Haslet	0.46	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	657	100%	700	1,283	301	982	\$ 3,421,000	\$ 3,421,000
B-25	Wagley Robertson (1)	Avondale Haslet to 5,220' S of Avondale Haslet	0.99	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,768	0	2,768	\$ 7,378,000	\$ 7,378,000
B-26	Wagley Robertson (2)	5,220' S of Avondale Haslet to Blue Mound	0.62	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,742	0	1,742	\$ 4,643,000	\$ 4,643,000
B-27, C-21	Wagley Robertson (3)	245' N of US 287 to 725' S of US 287	0.18	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	50%	700	257	0	257	\$ 1,407,000	\$ 703,500
B-28	John Day (1)	985' S of Eagle to 1,360' S of Eagle	0.07	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	185	0	185	\$ 567,000	\$ 567,000
B-29	John Day (2)	1,360' S of Eagle to 4,515' S of Eagle	0.60	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	149	100%	700	1,673	89	1,584	\$ 2,207,000	\$ 2,207,000
B-30	John Day (3)	4,515' S of Eagle to Keller Haslet	0.78	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	149	100%	700	2,180	116	2,064	\$ 2,946,000	\$ 2,946,000
B-31	John Day (4)	Keller Haslet to Rancho Canyon	0.33	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	936	0	936	\$ 3,012,000	\$ 3,012,000
B-32	John Day (5)	Rancho Canyon to 990' S of Rancho Canyon	0.19	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	488	0	488	\$ 1,496,000	\$ 1,496,000
B-33	John Day (6)	990' S of Rancho Canyon to Avondale-Haslet Rd	1.10	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	50%	650	1,434	0	1,434	\$ 8,804,000	\$ 4,402,000
SUBTOTAL										45,627	4,974	40,653	137,508,959	\$ 121,518,959

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA B \$ 121,542,734

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].



City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area C

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
C-1	Keller Hicks (1)	Harmon to Harmon (Future)	0.22	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	1,018	50%	650	288	113	175	\$ 1,719,000	\$ 859,500
C-2	Keller Hicks (2)	Harmon (Future) to IH-35 W SBFR	0.33	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	1,018	50%	700	465	169	296	\$ 2,354,000	\$ 1,177,000
C-3	Bonds Ranch (1)	Wagley Robertson to 625' E of Wagley Robertson	0.12	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	1,229	50%	700	166	73	93	\$ 888,000	\$ 444,000
C-4	Bonds Ranch (2)	625' E Wagley Robertson to US 287 SBFR	0.87	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	1,229	100%	700	2,431	1,067	1,364	\$ 8,790,000	\$ 8,790,000
C-5	Bonds Ranch (3)	US 287 SBFR to FM 156	0.52	4	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	841	100%	700	1,469	441	1,028	\$ 4,026,000	\$ 4,026,000
C-6	Bonds Ranch (4)	FM 156 to Harmon	1.00	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	988	100%	700	2,808	991	1,817	\$ 7,515,000	\$ 7,515,000
C-7	Golden Triangle (1)	470' E of Misty Redwood to Golden Heights	0.25	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	827	100%	700	708	209	499	\$ 1,181,000	\$ 1,181,000
C-8	Golden Triangle (2)	Golden Heights to Harmon (Future)	0.11	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	827	100%	700	316	93	222	\$ 863,000	\$ 863,000
C-9	Golden Triangle (3)	Harmon (Future) to 615' E of Harmon	0.12	4	CCO-L3-T0-NTMS-P0-BOP (130) (W)	New	1,800	100%	700	326	210	116	\$ 943,000	\$ 943,000
C-10	Golden Triangle (4)	615' E of Harmon to IH-35W	0.27	6	CCO-L3-T0-NTMS-P0-BOP (130)	Widening	1,800	100%	700	1,134	486	648	\$ 2,531,000	\$ 2,531,000
C-11	Heritage Trace (6)	Wagley Robertson to Wagley Robertson (Future)	0.08	4	CCO-L3-T0-NTMS-P0-BLB (130) (W)	New	New	100%	700	215	0	215	\$ 677,000	\$ 677,000
C-12	Heritage Trace (7)	Wagley Robertson (Future) to Copper Crossing	1.08	4	NCO-L3-T0-NTMS-P0-BLS (130) (W)	New	New	100%	700	3,020	0	3,020	\$ 10,508,000	\$ 10,508,000
C-13	Heritage Trace (8)	Copper Crossing to FM 156	0.36	6	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Median	174	100%	700	1,503	62	1,441	\$ 658,000	\$ 658,000
C-14	Heritage Trace (9)	Blue Mound to US 287 SBFR	0.53	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	1,477	0	1,477	\$ 6,290,000	\$ 6,290,000
C-15	Heritage Trace (10)	US 287 to 1,145' E of US 287	0.22	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	607	0	607	\$ 4,612,000	\$ 4,612,000
C-16	Heritage Trace (11)	135' W of Creosote to Harmon	0.39	6	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	264	100%	700	1,655	104	1,551	\$ 724,000	\$ 724,000
C-17	N. Tarrant (1)	US 287 SBFR to US 287 NBFR	0.15	4	NCO-L2-T0-NTMS-P0-BLS (110)	New	New	100%	700	416	0	416	\$ 5,482,000	\$ 5,482,000
C-18	N. Tarrant (2)	US 287 NBFR to 335' E of US 287 NBFR	0.06	6	CCO-L3-T0-NTMS-P0-BLB (130)	Widening	472	100%	700	266	30	237	\$ 640,000	\$ 640,000
C-19	Bailey Boswell (4)	FM 156 to Horseman	0.69	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,944	0	1,944	\$ 7,450,000	\$ 7,450,000
C-20, F-1	Basswood	Candler to IH-35 W	0.31	6	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,728	50%	700	652	268	384	\$ 571,000	\$ 285,500
C-21, B-27	Wagley Robertson (3)	245' N of US 287 to 725' S of US 287	0.18	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	50%	700	257	0	257	\$ 5,757,000	\$ 2,878,500
C-22	Wagley Robertson (4)	565' N of Hawks Landing to Hawks Landing	0.11	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	100	100%	700	300	11	289	\$ 405,000	\$ 405,000
C-23	Wagley Robertson (5)	Hawks Landing to 310' N of Bonds Ranch	0.41	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	100	100%	700	1,138	41	1,097	\$ 1,501,000	\$ 1,501,000
C-24, E-18	Wagley Robertson (6)	690' N of Quicksilver to 1795' S of Bent Oak	0.63	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	465	50%	650	815	146	669	\$ 4,748,000	\$ 2,374,000
C-25	Wagley Robertson (7)	735' N of Heritage Trace to Heritage Trace	0.14	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	390	0	390	\$ 1,040,000	\$ 1,040,000
C-26	Wagley Robertson (8)	Heritage Trace to 1465' S of Heritage Trace	0.28	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	361	0	361	\$ 1,575,000	\$ 1,575,000
C-27, E-19	Wagley Robertson (9)	145' N of Mystic River to 715' S of Mystic River	0.16	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	200	50%	650	106	16	90	\$ 878,000	\$ 439,000
C-28	Harmon (1)	Keller Hicks to 2,475' S of Keller Hicks	0.47	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	1,104	100%	650	609	518	92	\$ 2,749,000	\$ 2,749,000
C-29	Harmon (2)	2,475' S of Keller Hicks to 640' N of Golden Triangle	0.16	2	CCO-L1-T0-TWLT-P0-BOP (80)	Widening	1,104	50%	650	105	89	16	\$ 902,000	\$ 451,000
C-30	Harmon (3)	640' N of Golden Triangle to Golden Triangle	0.12	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	1,104	100%	650	158	134	24	\$ 712,000	\$ 712,000
C-31	Harmon (4)	Bonds Ranch to Heritage Trace	0.65	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	655	100%	700	1,824	427	1,398	\$ 2,407,000	\$ 2,407,000
C-32	Harmon (5)	Heritage Trace to US 287 NBFR	0.99	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	995	100%	650	2,580	987	1,593	\$ 7,846,000	\$ 7,846,000
C-33	Harmon (6)	US 287 NBFR to US 287 SBFR	0.14	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	374	0	374	\$ 5,500,000	\$ 5,500,000
C-34	Harmon (7)	US 287 SBFR to Harmon	0.15	4	NCO-L2-T0-NTMS-P0-BLS (110)	New	New	100%	700	419	0	419	\$ 1,140,000	\$ 1,140,000
C-35	Harmon (8)	330' W of Bailey Boswell to Bailey Boswell	0.06	4	NCO-L2-T0-NTMS-P0-BLS (110)	New	New	100%	700	175	0	175	\$ 477,000	\$ 477,000
C-36	Bailey Boswell (5)	Harmon to Horseman	0.81	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	2,117	0	2,117	\$ 6,499,000	\$ 6,499,000
SUBTOTAL										33,594	6,685	26,910	112,558,000	\$ 103,649,500

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA C \$ 103,673,275

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area D

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
A-15, D-1	Timberland (1)	485' E of Lilybrook to N Caylor	0.29	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	513	50%	700	406	74	332	\$ 2,086,000	\$ 1,043,000
A-16, D-2	Timberland (2)	N Caylor to 375' E of N Caylor	0.07	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	513	50%	700	98	18	80	\$ 504,000	\$ 252,000
A-17, D-3	Timberland (3)	375' E of N Caylor to Park Vista	0.22	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	513	50%	700	308	56	252	\$ 5,241,058	\$ 2,620,529
A-18, D-4	Timberland (4)	Park Vista to 355' E of Park Vista	0.07	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	83	50%	700	98	3	95	\$ 1,703,344	\$ 851,672
A-19, D-5	Timberland (5)	355' E of Park Vista to 425' E of Harvest Oaks	0.46	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	83	50%	700	644	19	625	\$ 1,694,000	\$ 847,000
A-20, D-6	Timberland (6)	425' E of Harvest Oaks to US 377	0.10	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	50%	700	140	0	140	\$ 1,447,000	\$ 723,500
D-7	Keller Hicks (1)	Old Denton to 600' W of Ridgeview	1.03	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	192	100%	650	1,339	198	1,141	\$ 5,530,000	\$ 5,530,000
D-8	Keller Hicks (2)	600' W of Ridgeview to Alta Vista	0.44	4	NCO (E)	Previous	192	100%	700	1,232	84	1,148	\$ 1,071,577	\$ 1,071,577
D-9	Keller Hicks (3)	Alta Vista to Park Vista	0.52	4	CCO (E)	Previous	1,511	100%	700	1,456	786	670	\$ 5,763,683	\$ 5,763,683
D-10	Keller Hicks (4)	Park Vista to Katy	1.00	2	CCO-L1-T0-TWLT-P0-BOP (80)	Widening	1,073	100%	650	1,300	1,073	227	\$ 5,577,000	\$ 5,577,000
D-11	Golden Triangle (5)	IH-35 W to Old Denton	0.50	6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,800	100%	700	2,100	900	1,200	\$ 2,042,000	\$ 2,042,000
D-12	Golden Triangle (6)	Old Denton to Beach	1.05	6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,990	100%	700	4,410	2,090	2,321	\$ 4,259,000	\$ 4,259,000
D-13	Golden Triangle (7)	Beach to Park Vista	0.99	6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,897	100%	700	4,158	1,878	2,280	\$ 4,078,000	\$ 4,078,000
D-14	Golden Triangle (8)	Park Vista to 2,130' E of Park Vista	0.40	6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,897	100%	700	1,680	759	921	\$ 1,629,000	\$ 1,629,000
D-15	Golden Triangle (9)	2,130' E of Park Vista to Katy	0.63	6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,897	100%	700	2,646	1,195	1,451	\$ 2,607,000	\$ 2,607,000
D-16	Kroger	1,650' E of Ray White to US 377	0.65	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	1,677	100%	650	1,690	1,090	600	\$ 5,748,000	\$ 5,748,000
D-17	N. Tarrant (3)	IH-35 W to Riverside	0.65	6	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	Median	2,460	100%	700	2,730	1,599	1,131	\$ 1,194,000	\$ 1,194,000
D-18	N. Tarrant (4)	Riverside to Beach	1.02	6	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Median	2,176	100%	700	4,284	2,220	2,064	\$ 1,880,000	\$ 1,880,000
D-19	N. Tarrant (5)	Beach to Park Vista	1.05	6	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Median	2,436	100%	700	4,410	2,558	1,852	\$ 1,920,000	\$ 1,920,000
D-20	N. Tarrant (6)	Park Vista to US 377	0.81	6	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	Median	2,687	100%	700	3,402	2,176	1,226	\$ 1,485,000	\$ 1,485,000
D-21	Summerfields	Riverside to Cannonwood	0.18	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	280	100%	700	504	50	454	\$ 651,000	\$ 651,000
D-22	Riverside (1)	SH 170 EBFR to 180' N of Hidden Valley	0.18	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	869	100%	700	504	156	348	\$ 699,000	\$ 699,000
D-23	Riverside (2)	180' N of Hidden Valley to 135' S of San Fernando	0.17	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,080	100%	700	476	184	292	\$ 628,000	\$ 628,000
D-24	Riverside (3)	135' S of San Fernando to 325' N of Sawtimber	0.17	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,080	100%	700	476	184	292	\$ 628,000	\$ 628,000
D-25	Riverside (4)	Keller Hicks to 800' N of Golden Triangle	0.31	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,283	100%	700	868	398	470	\$ 1,172,000	\$ 1,172,000
D-26	Riverside (5)	800' N of Golden Triangle to Golden Triangle	0.15	4	CCO-L2-T0-NTMS-P0-BOP (110)	Widening	1,283	100%	700	420	192	228	\$ 1,100,000	\$ 1,100,000
D-27	Riverside (6)	Prairie Vista to Shiver	0.46	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	1,061	100%	700	1,288	488	800	\$ 1,378,007	\$ 1,378,007
D-28	Riverside (7)	Shiver to N. Tarrant	0.52	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	1,061	100%	700	1,456	552	904	\$ 3,710,000	\$ 3,710,000
D-29	Riverside (8)	N. Tarrant to Thompson	0.36	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	1,085	100%	650	936	391	545	\$ 2,691,000	\$ 2,691,000
D-30	Riverside (9)	Thompson to Summerfields	0.36	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,121	100%	700	1,008	404	604	\$ 2,307,628	\$ 2,307,628
D-31	Riverside (10)	Summerfields to Old Denton Rd	0.29	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,121	100%	700	812	325	487	\$ 1,126,000	\$ 1,126,000
A-29, D-32	Beach (7)	SH 170 EBFR to 2,045' S of SH 170 EBFR	0.39	4	CCO-L3-T0-NTMS-P0-BLB (130) (W)	New	New	50%	700	546	0	546	\$ 3,415,000	\$ 1,707,500
A-30, D-33	Beach (8)	410' N of Saratoga Downs to Timberland	0.70	6	NCO-L3-T0-NTMS-P0-BLS (130) (1/3)	Median	1,409	50%	700	1,470	493	977	\$ 1,285,000	\$ 642,500
D-34	Beach (9)	Timberland to Keller Hicks	1.04	4	NCO-L2-T0-NTMS-P0-BLS (110)	Previous	1,617	100%	700	2,912	1,682	1,230	\$ 1,684,794	\$ 1,684,794
D-35	Beach (10)	Keller Hicks to Golden Triangle	0.75	4	NCO-L2-T0-NTMS-P0-BLS (110)	Previous	2,088	100%	700	2,100	1,566	534	\$ 4,539,651	\$ 4,539,651
D-36	Beach (11)	Vista Meadows to Heritage Trace	0.40	4	NCO-L2-T0-NTMS-P0-BLS (110)	Previous	2,361	100%	700	1,120	944	176	\$ 6,344,578	\$ 6,344,578
D-37	Beach (12)	Heritage Trace to 155' S of Springview Ln	1.11	4	NCO-L2-T0-NTMS-P0-BLS (110)	Previous	2,500	100%	700	3,108	2,775	333	\$ 2,346,625	\$ 2,346,625
D-38	Park Vista (4)	Timberland to Caylor	0.17	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	460	100%	700	476	78	398	\$ 4,323,873	\$ 4,323,873
D-39	Park Vista (5)	Keller Hicks to Golden Triangle	0.51	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,326	0	1,326	\$ 457,671	\$ 457,671
D-40	Park Vista (6)	Golden Triangle to Ray White	0.51	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,326	0	1,326	\$ 6,089,000	\$ 6,089,000
D-41	Park Vista (7)	Wyndbrook to Mirage	0.76	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	1,189	100%	650	1,976	904	1,072	\$ 5,752,000	\$ 5,752,000
D-42	Park Vista (8)	Shiver to N. Tarrant	0.49	4	NCO (E)	Previous	1,549	100%	700	1,372	759	613	\$ 2,059,673	\$ 2,059,673
SUBTOTAL										65,011	31,300	33,711	111,848,162	\$ 103,160,461

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775  
TOTAL ROADWAY COST IN SERVICE AREA D \$ 103,184,236

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area E

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
E-1	Eagle Mountain (1)	6,390' W of Fleming Ranch to Fleming Ranch	1.21	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	3,146	0	3,146	\$ 9,658,000	\$ 9,658,000
E-2	Eagle Mountain (2)	Fleming Ranch to BUS 287	1.10	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	3,080	0	3,080	\$ 8,233,000	\$ 8,233,000
E-3	Boat Club	1,555' W of Fleming Ranch to Fleming Ranch	0.29	4	NCO-L2-T0-NTMS-P0-BLS (110)	New	New	100%	700	812	0	812	\$ 2,242,000	\$ 2,242,000
E-4	Heritage Trace (1)	Fleming Ranch to 5,790' E of Fleming Ranch	1.10	4	NCO-L3-T0-NTMS-P0-BLS (130) (W)	New	New	100%	700	3,080	0	3,080	\$ 8,820,000	\$ 8,820,000
E-5	Heritage Trace (2)	Old Decatur to BUS 287	0.06	4	CCO-L3-T0-NTMS-P0-BLB (130) (W)	Widening	258	100%	700	168	15	153	\$ 516,000	\$ 516,000
E-6	Heritage Trace (3)	BUS 287 to Willow Springs	0.19	4	CCO-L3-T0-NTMS-P0-BLB (130) (W)	New	New	100%	700	532	0	532	\$ 2,395,000	\$ 2,395,000
E-7	Heritage Trace (4)	Willow Springs to 3,005' E of Willow Springs	0.57	4	CCO-L3-T0-NTMS-P0-BLB (130) (W)	New	New	100%	700	1,596	0	1,596	\$ 5,017,000	\$ 5,017,000
E-8	Heritage Trace (5)	3,005' E of Willow Springs to 275' W of Wagley Robertson	0.56	4	CCO-L3-T0-NTMS-P0-BLB (130) (W)	New	New	50%	700	784	0	784	\$ 4,968,000	\$ 2,484,000
E-9	Bailey Boswell (1)	FM 1220 to 2,020' E of FM 1220	0.38	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	964	50%	700	532	183	349	\$ 2,709,000	\$ 1,354,500
E-10	Bailey Boswell (2)	35' W of Bowman Roberts to 440' E of Wind River	1.21	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	964	100%	700	3,388	1,166	2,222	\$ 8,578,000	\$ 8,578,000
E-11, G-1	WJ Boaz	FM 1220 to Old Decatur Rd	2.05	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	931	50%	700	2,870	954	1,916	\$ 14,507,000	\$ 7,253,500
E-12	Robertson	680' W of Lake Country to Boat Club	0.87	4	NCO (E)	Previous	518	100%	700	2,436	451	1,985	\$ 6,105,868	\$ 6,105,868
E-13	Fleming Ranch	Bonds Ranch to 1,670' S of Heritage Trace	2.68	4	NCO-L3-T0-NTMS-P0-BLS (130) (W)	New	New	100%	700	7,504	0	7,504	\$ 21,595,000	\$ 21,595,000
E-14	Edward Green	Robertson to 1,995' S of Robertson	0.38	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	494	0	494	\$ 2,145,000	\$ 2,145,000
E-15	Willow Springs (6)	1,725' S of Bonds Ranch to 3,290' S of Bonds Ranch	0.30	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	840	0	840	\$ 2,213,000	\$ 2,213,000
E-16	Willow Springs (7)	6570' N of Heritage Trace to Heritage Trace	1.24	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	3,472	0	3,472	\$ 9,521,000	\$ 9,521,000
E-17	Old Decatur (1)	680' N of Milo to 195' S of Millstone	0.17	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	1,222	100%	650	221	208	13	\$ 898,000	\$ 898,000
C-24, E-18	Wagley Robertson (6)	690' N of Quicksilver to 1,795' S of Bent Oak	0.63	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	465	50%	650	819	146	673	\$ 4,748,000	\$ 2,374,000
C-27, E-19	Wagley Robertson (9)	145' N of Mystic River to 715' S of Mystic River	0.16	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	200	50%	650	104	16	88	\$ 878,000	\$ 439,000
SUBTOTAL										35,878	3,140	32,738	115,746,868	\$ 101,841,868

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA E \$ 101,865,643

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area F

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
C-20, F-1	Basswood	Candler to IH-35 W	0.31	6	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,728	50%	700	651	268	383	\$ 571,000	\$ 285,500
F-2	Western Center (1)	FM 156 to 430' E of FM 156	0.08	4	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	1,737	100%	700	224	139	85	\$ 625,000	\$ 625,000
F-3	Western Center (2)	430' E of FM 156 to Robert W Downing	0.51	6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,737	100%	700	2,142	886	1,256	\$ 951,000	\$ 951,000
F-4	Western Center (3)	Riverside to 980' E of Riverside	0.19	6	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,981	100%	700	798	376	422	\$ 341,000	\$ 341,000
F-5	Western Center (4)	590' W of Bayberry to Spoonwood	0.42	6	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,981	100%	700	1,764	832	932	\$ 780,000	\$ 780,000
F-6	Western Center (5)	Spoonwood to Beach	0.19	6	CCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	1,981	100%	700	798	376	422	\$ 360,000	\$ 360,000
F-7	Cantrell Sansom (1)	455' W of Nafex to 610' E of Nafex	0.20	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	307	100%	700	560	61	499	\$ 1,430,000	\$ 1,430,000
F-8	Cantrell Sansom (2)	610' E of Nafex to 190' E of Deerfoot	0.22	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	307	100%	700	616	68	548	\$ 805,000	\$ 805,000
F-9	Cantrell Sansom (3)	470' E of Mark IV to Old Denton	0.22	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	715	100%	700	616	157	459	\$ 1,536,000	\$ 1,536,000
F-10	Cantrell Sansom (4)	Old Denton to IH-35 W SBFR	0.19	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	532	0	532	\$ 1,443,000	\$ 1,443,000
F-11	Northeast	Superior to Mark IV	0.20	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	260	0	260	\$ 1,595,000	\$ 1,595,000
F-12	Meacham (1)	635' E of FM 156 to RR Bridge	0.40	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	1,351	100%	650	1,040	540	500	\$ 3,128,000	\$ 3,128,000
F-13	Meacham (2)	Deen to Mark IV	0.26	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,343	100%	700	728	349	379	\$ 975,000	\$ 975,000
F-14	Meacham (3)	Mark IV to 1335' E of Mark IV	0.25	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,993	100%	700	700	498	202	\$ 957,000	\$ 957,000
F-15	Lone Star (1)	400' S of Northeast to 555' N of Franklin	0.69	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	897	0	897	\$ 5,471,000	\$ 5,471,000
F-16	Lone Star (2)	145' N of Meacham to Meacham	0.03	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	39	0	39	\$ 162,000	\$ 162,000
F-17	Riverside (11)	Stone Creek to 180' N of Redwood Creek	0.19	4	NCO (E)	Previous	1,694	100%	700	532	322	210	\$ 1,377,102	\$ 1,377,102
F-18	Sylvania	Melody Hills to Quorum	0.32	2	CCO-L1-T0-TWLT-P0-BOP (80)	Widening	619	100%	650	416	198	218	\$ 1,793,000	\$ 1,793,000
F-19	Beach (13)	Fossil Creek to IH-820 WBFR	0.68	6	CCO-L3-T0-NTMS-P0-BLB (130)	Previous	1,618	100%	700	2,856	1,100	1,756	\$ 7,598,454	\$ 7,598,454
SUBTOTAL										16,169	6,172	9,997	31,898,556	\$ 31,613,056

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA F \$ 31,636,831

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area G

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
E-11, G-1	WJ Boaz	FM 1220 to Old Decatur Rd	2.05	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	931	50%	700	2,870	954	1,916	\$ 14,507,000	\$ 7,253,500
G-2	Old Decatur (1)	Marine Creek to Old Decatur	0.04	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	1,239	100%	650	104	50	54	\$ 306,298	\$ 306,298
G-3	Cromwell Marine Creek (1)	FM 1220 to Huffines	0.87	4	CCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	735	100%	700	2,436	639	1,797	\$ 6,700,000	\$ 6,700,000
G-4	Cromwell Marine Creek (2)	Huffines to Chesterfield	0.34	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	1,050	100%	700	952	357	595	\$ 2,562,000	\$ 2,562,000
G-5	Cromwell Marine Creek (3)	360' E of Crystal Lake to Stonewater Bend	0.20	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	1,050	100%	700	560	210	350	\$ 1,477,000	\$ 1,477,000
G-6	Cromwell Marine Creek (4)	Stonewater Bend to Marine Creek	0.58	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	1,624	0	1,624	\$ 4,426,000	\$ 4,426,000
G-7	Longhorn	Marine Creek to Old Decatur	0.24	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	395	100%	700	672	95	577	\$ 1,810,000	\$ 1,810,000
G-8	Ten Mile Bridge (1)	3,075' W of Hodgkins to Hodgkins	0.58	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	340	100%	650	754	197	557	\$ 3,137,000	\$ 3,137,000
G-9	Ten Mile Bridge (2)	Hodgkins to FM 1220	0.49	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	460	100%	700	1,372	225	1,147	\$ 3,495,000	\$ 3,495,000
G-10	Ten Mile Bridge (3)	FM 1220 to Bowman Roberts	0.55	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	335	100%	650	715	184	531	\$ 2,990,000	\$ 2,990,000
G-11	Ten Mile Bridge (4)	Westgate to Huffines	0.41	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	12	100%	650	533	5	528	\$ 2,194,000	\$ 2,194,000
G-12	Edward Geren (2)	4,570' N of Ten Mile Bridge to Ten Mile Bridge	0.87	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	1,131	0	1,131	\$ 4,913,000	\$ 4,913,000
G-13	Hodgkins	Ten Mile Bridge to Hatch	1.00	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	284	100%	650	1,300	284	1,016	\$ 5,403,000	\$ 5,403,000
G-14	Marine Creek (1)	Old Decatur to 620' S of Old Decatur	0.12	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	1,239	100%	700	336	149	187	\$ 765,744	\$ 765,744
G-15	Marine Creek (2)	620' S of Old Decatur Rd to Cromwell Marine Creek	0.23	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	644	0	644	\$ 1,531,489	\$ 1,531,489
G-16	Marine Creek (3)	Cromwell Marine Creek to Longhorn	0.25	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	947	100%	700	700	237	463	\$ 1,608,063	\$ 1,608,063
G-17	Marine Creek (4)	Longhorn to 410' S of Goodland	0.52	4	CCO (E)	Widening	1,306	100%	700	1,456	679	777	\$ 3,445,850	\$ 3,445,850
G-18	Marine Creek (5)	Angle to FM 1220	1.01	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	1,313	0	1,313	\$ 6,029,000	\$ 6,029,000
G-19	Old Decatur (2)	River Rock to IH-820 WBFR	0.30	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,403	100%	700	840	421	419	\$ 1,096,000	\$ 1,096,000
G-20	Old Decatur (3)	IH-820 EBFR to 890' N Of Angle	0.63	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	754	100%	700	1,764	475	1,289	\$ 4,481,000	\$ 4,481,000
SUBTOTAL										22,076	5,161	16,915	72,877,444	\$ 65,623,944

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA G \$ 65,647,719

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area L

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
L-1	1st (1)	Beach to 1,345' E of Beach	0.25	4	NCO (E)	Previous	573	100%	700	700	143	557	\$ 457,890	\$ 457,890
L-2	1st (2)	1,345' E of Beach to 5,290' E of Beach	0.75	4	NCO (E)	Previous	573	100%	700	2,100	430	1,670	\$ 1,343,143	\$ 1,343,143
L-3	1st (3)	3,630' W of Oakland to Oakland	0.69	4	NCO (E)	Previous	582	100%	700	1,932	402	1,530	\$ 1,251,565	\$ 1,251,565
SUBTOTAL										4,732	975	3,757	3,052,598	3,052,598

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775  
TOTAL ROADWAY COST IN SERVICE AREA L \$ 3,076,373

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area M

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
M-1	Pipeline (1)	SH 10 to Raider	0.28	2	CCO-L1-T0-TWLT-P0-BOP (80)	Widening	205	100%	650	364	57	307	\$ 1,550,000	\$ 1,550,000
M-2	Trinity (1)	IH-820 NBFR to 1,550' W of Precinct Line	1.35	4	CMU-L2-T0-TWLT-P0-BLC (110)	Widening	1,444	100%	650	3,510	1,949	1,561	\$ 11,416,000	\$ 11,416,000
M-3	Trinity (2)	1,550' W of Precinct Line to Precinct Line	0.29	4	CMU-L2-T0-NTMS-P0-BLC (110)	Previous	1,444	100%	650	754	419	335	\$ 647,647	\$ 647,647
M-4	Trinity (3)	Precinct Line to 545' E of Precinct Line	0.10	4	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Previous	1,381	100%	700	280	138	142	\$ 215,882	\$ 215,882
M-5	Trinity (4)	545' E of Precinct Line to Norwood	0.75	4	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Widening	1,419	100%	700	2,100	1,064	1,036	\$ 8,238,000	\$ 8,238,000
M-6	Trinity (5)	Norwood to 1,500' E of Norwood	0.28	4	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Widening	1,430	100%	700	784	400	384	\$ 3,231,000	\$ 3,231,000
M-7	Trinity (6)	1,565' W of Bell Spur to Bell Spur	0.30	4	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Widening	1,430	100%	700	840	429	411	\$ 2,319,000	\$ 2,319,000
M-8	Trinity (7)	Bell Spur to 2,950' E of Bell Spur	0.56	4	SYS-L3-T0-NTMW-P0-BLS (130) (W)	Widening	1,885	100%	700	1,568	1,056	512	\$ 6,714,000	\$ 6,714,000
M-9	Randol Mill (1)	Stoneview to Sandy	0.95	2	NCO-L1-T0-TWLT-P0-BLC (80)	Widening	460	100%	650	1,235	437	798	\$ 6,413,000	\$ 6,413,000
M-10	Randol Mill (2)	Sandy to Cooks	0.55	2	NCO-L1-T0-TWLT-P0-BLC (80)	Widening	460	100%	650	715	253	462	\$ 3,571,000	\$ 3,571,000
M-11	Randol Mill (3)	Cooks to Lowery	1.02	4	NCO-L2-T0-NTMS-P0-BLS (110)	New	460	100%	700	2,856	469	2,387	\$ 7,798,000	\$ 7,798,000
M-12	Randol Mill (4)	Lowery to 880' E of Lowery	0.17	4	NCO-L2-T0-NTMS-P0-BLS (110)	Widening	898	100%	700	476	153	323	\$ 1,204,000	\$ 1,204,000
M-13	Randol Mill (5)	880' E of Lowery to Racquet Club	0.25	4	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)	Widening	898	100%	700	700	225	476	\$ 942,000	\$ 942,000
M-14	Sandy (1)	Randol Mill to 370' S of Randol Mill	0.07	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	91	0	91	\$ 639,000	\$ 639,000
M-15	Sandy (2)	370' S of Randol Mill to John T White	0.98	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	321	100%	650	1,274	315	959	\$ 5,289,000	\$ 5,289,000
M-16	Sandy (3)	John T. White to IH-30	0.45	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	419	100%	650	1,170	189	981	\$ 5,396,000	\$ 5,396,000
M-17	Precinct Line (1)	1825' N of Trinity to Trinity	0.35	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	1,309	100%	700	980	458	522	\$ 743,594	\$ 743,594
M-18	Precinct Line (2)	Trinity to 1,955' S of Trinity	0.37	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	1,246	100%	700	1,036	461	575	\$ 791,568	\$ 791,568
M-19	Precinct Line (3)	1,955' S of Trinity to Randol Mill	1.36	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	1,246	100%	700	3,808	1,695	2,113	\$ 11,987,000	\$ 11,987,000
M-20	Precinct Line (4)	Randol Mill (Existing) to 1,815' S of Randol Mill (Existing)	0.34	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	1,246	100%	700	952	424	528	\$ 2,938,000	\$ 2,938,000
M-21	Cooks (1)	1,815' S of Randol Mill to 690' S of Lowery	0.54	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	486	100%	650	702	262	440	\$ 3,058,000	\$ 3,058,000
M-22	Norwood (1)	SH 10 to Railroad	0.24	2	CCO-L1-T0-TWLT-P0-BOP (80)	Widening	389	100%	650	312	93	219	\$ 1,993,000	\$ 1,993,000
M-23	Norwood (2)	Railroad to Trinity	0.23	2	CCO-L1-T0-TWLT-P0-BOP (80)	Previous	389	100%	650	299	89	210	\$ 1,000,000	\$ 1,000,000
M-24	Greenbelt Rd	Trinity to 8885' S of Trinity	1.68	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	1,666	100%	700	4,704	2,799	1,905	\$ 14,247,000	\$ 14,247,000
SUBTOTAL										31,510	13,834	17,676	102,341,691	\$ 102,341,691

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA M \$ 102,365,466

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].



City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area N

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
N-1	Pipeline (2)	Raider to House Anderson	0.69	2	CCO-L1-T0-TWLT-P0-BOP (80)	Widening	205	100%	650	897	141	756	\$ 3,827,000	\$ 3,827,000
N-2	Pipeline (3)	House Anderson to 1,755' E of House Anderson	0.33	2	CCO-L1-T0-TWLT-P0-BOP (80)	Widening	236	100%	650	429	78	351	\$ 1,851,000	\$ 1,851,000
N-3	Pipeline (4)	1,665' W of FM 157 to FM 157	0.32	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	422	100%	650	416	135	281	\$ 1,700,000	\$ 1,700,000
N-4	Pipeline (5)	FM 157 to S. Main	1.01	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	422	100%	650	1,313	426	887	\$ 5,960,000	\$ 5,960,000
N-5	Pipeline (6)	S. Main to American	0.68	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	502	100%	650	884	341	543	\$ 3,642,000	\$ 3,642,000
N-6	House Anderson	Pipeline to Trinity	0.27	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	631	100%	650	351	170	181	\$ 1,470,000	\$ 1,470,000
N-7	S. Main	Pipeline to Trinity	0.19	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	513	100%	650	247	97	150	\$ 1,021,000	\$ 1,021,000
SUBTOTAL										4,537	1,390	3,147	19,471,000	\$ 19,471,000

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA N \$ 19,494,775

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area O

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
O-1	Sandy (4)	IH-30 to Ederville	0.16	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	358	100%	650	416	57	359	\$ 3,274,000	\$ 3,274,000
O-2	Cooks (2)	Brentwood Stair to 140' N of Bermejo	0.78	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	567	100%	700	2,184	442	1,742	\$ 6,352,000	\$ 6,352,000
O-3	Cooks (3)	140' N of Bermejo to Maegan	0.23	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	567	100%	700	644	130	514	\$ 851,000	\$ 851,000
O-4	Cooks (4)	Maegan to Dottie Lynn	0.27	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	513	100%	700	756	139	617	\$ 2,036,000	\$ 2,036,000
SUBTOTAL										4,000	768	3,232	12,513,000	\$ 12,513,000

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775  
TOTAL ROADWAY COST IN SERVICE AREA O \$ 12,536,775

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area PI

11/8/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
PI-1	White Settlement	Henderson to Main	0.54	4	CMU-L2-TO-UNDIV-PO-BLC (110)	New	New	100%	650	1,404	0	1,404	\$ 7,514,598	\$ 7,514,598
SUBTOTAL										1,404	0	1,404	7,514,598	7,514,598

Transportation Impact Fee Study Cost (Per Service Area) \$ 4,000  
TOTAL ROADWAY COST IN SERVICE AREA PI \$ 7,518,598

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area S

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
S-1	Silver Creek (1)	4,220' W of Silver Creek (Existing) to Silver Creek (Existing)	0.80	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,240	0	2,240	\$ 7,566,000	\$ 7,566,000
S-2	Silver Creek (2)	Silver Creek (Future) to 595' S of Verna	0.81	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	94	100%	700	2,268	76	2,192	\$ 5,708,000	\$ 5,708,000
S-3	Silver Creek (3)	595' S of Verna to Academy (Future)	0.16	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	448	0	448	\$ 1,195,000	\$ 1,195,000
S-4	Silver Creek (4)	Academy (Future) to 1465 feet E of Academy (Future)	0.28	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	784	0	784	\$ 2,071,000	\$ 2,071,000
S-5	Silver Creek (5)	1,465' E of Academy (Future) to IH-820	0.34	4	NCO (E)	Previous	94	100%	700	952	32	920	\$ 1,329,510	\$ 1,329,510
S-6	White Settlement (1)	600' E of Haywire Ranch to Silver Ridge	1.14	4	SYS-L3-T0-NTMS-P0-BLS (130) (W)	Widening	693	50%	700	1,596	395	1,201	\$ 8,917,000	\$ 4,458,500
S-7	White Settlement (2)	Silver Ridge to 890' E of Silver Ridge	0.17	4	SYS-L3-T0-NTMS-P0-BLS (130) (W)	Widening	835	50%	700	238	71	167	\$ 1,318,000	\$ 659,000
S-8	White Settlement (3)	890' E of Silver Ridge to Chapel Creek	0.75	4	SYS-L3-T0-NTMS-P0-BLS (130) (W)	Widening	835	100%	700	2,100	626	1,474	\$ 5,831,000	\$ 5,831,000
S-9	White Settlement (4)	Chapel Creek to Academy	0.50	6	SYS-L3-T0-NTMW-P0-BLS (130) (1/3)	Median	207	100%	700	2,100	104	1,997	\$ 925,000	\$ 925,000
S-10	White Settlement (5)	Academy to Legacy	0.39	6	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	Median	634	100%	700	1,638	247	1,391	\$ 714,000	\$ 714,000
S-11	White Settlement (6)	Legacy to White Settlement	0.12	6	CCO-L3-T0-NTMS-P0-BLB (130) (1/3)	Median	1,888	100%	700	504	227	277	\$ 213,000	\$ 213,000
S-12	Westpoint (1)	3,525' W of Basset Locke to Basset Locke	0.67	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,876	0	1,876	\$ 4,982,000	\$ 4,982,000
S-13	Westpoint (2)	Basset Locke to American Flyer	0.30	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	114	100%	700	840	34	806	\$ 1,112,000	\$ 1,112,000
S-14	Westpoint (3)	Academy to IH-820 SBFR	0.69	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	Widening	422	100%	700	1,932	291	1,641	\$ 5,145,000	\$ 5,145,000
S-15	Old Weatherford (3)	3,510' W of Hickory Bend to 100' E of Hickory Bend	0.68	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	192	100%	700	1,904	131	1,773	\$ 4,842,000	\$ 4,842,000
S-16	Old Weatherford (4)	100' E of Hickory Bend to Chapel Creek	0.49	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	192	100%	700	1,372	94	1,278	\$ 3,448,000	\$ 3,448,000
S-17	Amber Ridge (1)	Chapel Creek to Wind Star	0.26	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	95	100%	700	728	25	703	\$ 973,000	\$ 973,000
S-18	Amber Ridge (2)	Wind Star to Academy (Future)	0.24	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	672	0	672	\$ 1,775,000	\$ 1,775,000
S-19	Amber Ridge (3)	Academy (Future) to 920' E of Academy (Future)	0.17	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	221	0	221	\$ 989,000	\$ 989,000
S-20	Amber Ridge (4)	920' E of Academy (Future) to Settlement Plaza (Future)	0.12	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	156	0	156	\$ 712,000	\$ 712,000
S-21	Amber Ridge (5)	Settlement Plaza (Future) to IH 820 SBFR	0.49	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	637	0	637	\$ 2,849,000	\$ 2,849,000
S-22	Chapin (1)	3,155' W of Whitetail Chase to 1,370' W of Whitetail Chase	0.34	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	345	100%	650	442	117	325	\$ 1,821,000	\$ 1,821,000
S-23	Chapin (2)	1,370' W of Whitetail Chase to 130' W of Whitetail Chase	0.23	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	299	0	299	\$ 1,334,000	\$ 1,334,000
S-24	WR #7	3,635' N of Old Weatherford to Old Weatherford	0.69	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,932	0	1,932	\$ 5,137,000	\$ 5,137,000
S-25	Silver Ridge	135' S of Broken Arrow to 110' N of Fandor	0.51	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,428	0	1,428	\$ 3,787,000	\$ 3,787,000
S-26	Chapel Creek	Chapin to IH-30	0.17	4	NCO (E)	Previous	1,458	100%	700	476	248	228	\$ 967,698	\$ 967,698
S-27	Academy (1)	Silver Creek (Future) to 125' N of Sparrow Hawk	0.57	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,596	0	1,596	\$ 4,227,000	\$ 4,227,000
S-28	Academy (2)	300' S of Westpoint to Amber Ridge (Future)	0.36	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,008	0	1,008	\$ 2,714,000	\$ 2,714,000
S-29	Academy (3)	Amber Ridge (Future) to IH-30 WBFR	0.51	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,428	0	1,428	\$ 3,906,000	\$ 3,906,000
S-30	Settlement Plaza	Westpoint to Amber Ridge (Future)	0.26	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	338	0	338	\$ 1,501,000	\$ 1,501,000
SUBTOTAL										34,153	2,718	31,435	88,009,208	\$ 82,891,708

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA S \$ 82,915,483

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area T

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
T-1	Chapin (3)	Camp Bowie to Longvue	0.61	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	793	0	793	\$ 3,439,000	\$ 3,439,000
T-2	Chapin (4)	Longvue to 965' W of Alemda	0.50	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	66	100%	700	1,400	33	1,367	\$ 3,575,000	\$ 3,575,000
T-3	Chapin (5)	965' W of Alemda to Alemeda	0.18	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	504	0	504	\$ 1,364,000	\$ 1,364,000
T-4	Chapin (6)	Alemeda to IH-820	0.25	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	87	100%	650	650	22	628	\$ 1,975,000	\$ 1,975,000
T-5	Alemeda (1)	Camp Bowie West to 545' S of Camp Bowie West	0.10	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	130	0	130	\$ 606,000	\$ 606,000
T-6	Alemeda (2)	545' S of Camp Bowie West to Chapin	0.34	2	CCO-L1-T0-TWLT-P0-BOP (80)	Widening	45	100%	650	442	15	427	\$ 1,882,000	\$ 1,882,000
SUBTOTAL										3,919	70	3,849	12,841,000	\$ 12,841,000

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775  
TOTAL ROADWAY COST IN SERVICE AREA T \$ 12,864,775

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area U

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
U-1	Old Weatherford (1)	3,500' W of Walsh Ranch to Walsh Ranch	0.66	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	56	100%	650	1,716	37	1,679	\$ 5,021,000	\$ 5,021,000
U-2	Old Weatherford (2)	Walsh Ranch to 1,355' E of Walsh Ranch	0.26	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	56	100%	700	728	15	713	\$ 1,818,000	\$ 1,818,000
U-3	Quail Meadow (1)	FM 3325 to WR #5	1.01	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,828	0	2,828	\$ 7,731,000	\$ 7,731,000
U-4	Quail Meadow (2)	WR #5 to 240' W of Walsh Ranch	1.62	4	CCO-L2-T0-NTMS-P0-BLC (110)	New	New	100%	700	4,536	0	4,536	\$ 12,930,000	\$ 12,930,000
U-5	Quail Meadow (3)	610' E of Walsh Ranch to WR #7	0.99	4	CCO-L2-T0-NTMS-P0-BLC (110)	New	New	100%	700	2,772	0	2,772	\$ 7,927,000	\$ 7,927,000
U-6	Quail Meadow (4)	WR #7 to IH-30	0.36	4	CCO-L2-T0-NTMS-P0-BLC (110)	New	New	100%	700	1,008	0	1,008	\$ 2,888,000	\$ 2,888,000
U-7	WR #1 (1)	1,880' W of WR #5 to WR #5	0.36	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	936	0	936	\$ 2,909,000	\$ 2,909,000
U-8	WR #1 (2)	WR #5 to WR #6	0.51	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,326	0	1,326	\$ 4,163,000	\$ 4,163,000
U-9	WR #1 (3)	WR #6 to Walsh Ranch	1.41	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	3,666	0	3,666	\$ 11,535,000	\$ 11,535,000
U-10	WR #1 (4)	Walsh Ranch to WR #7	1.67	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	4,676	0	4,676	\$ 12,759,000	\$ 12,759,000
U-11	WR #1 (5)	WR #7 to 2745' E of WR #7	0.52	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,456	0	1,456	\$ 3,979,000	\$ 3,979,000
U-12	WR #2 (1)	3,645' W of Walsh Ranch to Walsh Ranch	0.69	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,932	0	1,932	\$ 5,152,000	\$ 5,152,000
U-13	WR #2 (2)	Walsh Ranch to WR #1	0.57	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,482	0	1,482	\$ 4,572,000	\$ 4,572,000
U-14	WR #3 (1)	2,685' W of Walsh Ranch to Walsh Ranch	0.51	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,326	0	1,326	\$ 4,059,000	\$ 4,059,000
U-15	WR #3 (2)	Walsh Ranch to WR #7	1.39	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	3,614	0	3,614	\$ 11,116,000	\$ 11,116,000
U-16	WR #3 (3)	WR #7 to 3,590' E of WR #7	0.68	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,768	0	1,768	\$ 5,426,000	\$ 5,426,000
U-17	Aledo Rd	WR #3 to 515' E of WR #3	0.10	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	200	100%	650	260	20	240	\$ 740,000	\$ 740,000
U-18	WR #4	1,295' W of Walsh Ranch to Walsh Ranch	0.25	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	325	0	325	\$ 1,392,000	\$ 1,392,000
U-19	WR #5 (1)	Old Weatherford to 1,960' S of Old Weatherford	0.37	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	105	100%	700	1,036	39	997	\$ 2,841,000	\$ 2,841,000
U-20	WR #5 (2)	1,960' S of Old Weatherford to Quail Meadow	0.64	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,792	0	1,792	\$ 4,891,000	\$ 4,891,000
U-21	WR #5 (3)	Quail Meadow to IH-20	0.25	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	650	0	650	\$ 2,027,000	\$ 2,027,000
U-22	WR #5 (4)	IH-20 to WR #1	0.61	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,586	0	1,586	\$ 4,966,000	\$ 4,966,000
U-23	WR #6	IH-20 to WR #1	0.30	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	390	0	390	\$ 1,756,000	\$ 1,756,000
U-24	Walsh Ranch (1)	Old Weatherford to Marys Ridge	0.13	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	364	0	364	\$ 1,032,000	\$ 1,032,000
U-25	Walsh Ranch (2)	Marys Ridge to Walsh	0.45	4	NCO-L3-T0-NTMS-P0-BOP (130) (W) (1/2)	Widening	109	100%	700	1,260	49	1,211	\$ 1,774,000	\$ 1,774,000
U-26	Walsh Ranch (3)	Walsh to Walsh Creek	0.36	6	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Widening	109	100%	700	1,512	39	1,473	\$ 968,000	\$ 968,000
U-27	Walsh Ranch (4)	Walsh Creek to Quail Meadow	0.50	6	NCO-L3-T0-NTMS-P0-BOP (130) (1/3)	Median	109	100%	700	2,100	55	2,046	\$ 916,000	\$ 916,000
U-28	Walsh Ranch (5)	IH-30 EBFR to IH-20	0.69	4	CCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	1,932	0	1,932	\$ 5,604,000	\$ 5,604,000
U-29	Walsh Ranch (6)	IH-20 to WR #1	0.37	4	CCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	1,036	0	1,036	\$ 3,025,000	\$ 3,025,000
U-30	Walsh Ranch (7)	WR #1 to WR #2	0.54	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	1,512	0	1,512	\$ 4,240,000	\$ 4,240,000
U-31	Walsh Ranch (8)	WR #2 to WR #3	0.70	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	1,960	0	1,960	\$ 5,526,000	\$ 5,526,000
U-32	Walsh Ranch (9)	WR #3 to WR #4	0.64	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	1,792	0	1,792	\$ 5,055,000	\$ 5,055,000
U-33	Walsh Ranch (10)	WR #4 to 760' S of WR #4	0.14	4	NCO-L3-T0-NTMS-P0-BOP (130) (W)	New	New	100%	700	392	0	392	\$ 1,137,000	\$ 1,137,000
U-34	WR #7 (1)	4,830' N of Quail Meadow to Quail Meadow	0.92	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	2,392	0	2,392	\$ 7,301,000	\$ 7,301,000
U-35	WR #7 (2)	Quail Meadow to IH-30 EBFR	0.22	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	616	0	616	\$ 1,669,000	\$ 1,669,000
U-36	WR #7 (3)	4,680' N of IH-20 to IH-20	0.89	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	2,314	0	2,314	\$ 7,073,000	\$ 7,073,000
U-37	WR #7 (4)	IH-20 to WR #1	0.31	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	806	0	806	\$ 2,435,000	\$ 2,435,000
U-38	WR #7 (5)	WR #1 to WR #3	0.41	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,148	0	1,148	\$ 3,054,000	\$ 3,054,000
U-39	WR #7 (6)	WR #3 to Aledo Road	0.34	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	884	0	884	\$ 2,743,000	\$ 2,743,000
SUBTOTAL										63,829	253	63,576	176,150,000	\$ 176,150,000

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775  
TOTAL ROADWAY COST IN SERVICE AREA U \$ 176,173,775

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area V

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
V-1	Dean Ranch (1)	140' E of Markum Ranch to 2,460' E of Markum Ranch	0.44	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,232	0	1,232	\$ 3,280,000	\$ 3,280,000
V-2	Dean Ranch (2)	2,445' W of FM 2871 to FM 2871	0.46	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	0	100%	700	1,288	0	1,288	\$ 1,712,000	\$ 1,712,000
V-3	Bear Creek (1)	Walsh Ranch Major #2 to Markum Ranch	0.66	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,848	0	1,848	\$ 4,904,000	\$ 4,904,000
V-4	Bear Creek (2)	Markum Ranch to US 377	0.42	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,176	0	1,176	\$ 3,110,000	\$ 3,110,000
V-5	Markum Ranch (1)	705' S of Dean Ranch to 4,090' S of Dean Ranch	0.64	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	50%	650	832	0	832	\$ 5,117,000	\$ 2,558,500
V-6	Markum Ranch (2)	4,090' S of Dean Ranch to Bear Creek	1.05	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	2,730	0	2,730	\$ 8,388,000	\$ 8,388,000
SUBTOTAL										9,106	0	9,106	26,511,000	\$ 23,952,500

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775  
TOTAL ROADWAY COST IN SERVICE AREA V \$ 23,976,275

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].



City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area W

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
W-1	Lakeside/Altamesa	145' W of Pecan Valley to Bryant Irvin	1.38	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	1,046	100%	650	1,794	1,443	351	\$ 7,457,000	\$ 7,457,000
W-2, Y-1	Altamesa (1)	Bryant Irvin to Harris	0.52	6	NCO-L3-T0-NTMS-P0-BOP (130)	Previous	1,205	50%	700	1,092	313	779	\$ 7,673,507	\$ 3,836,753
W-3, Y-2	Altamesa (2)	Harris to Chisholm Trail SBFR	0.16	6	NCO-L3-T0-NTMS-P0-BOP (130)	Previous	1,520	50%	700	336	122	214	\$ 2,285,725	\$ 1,142,863
W-4, Y-3	Altamesa (3)	Chisholm Trail SBFR to Granbury	0.43	6	NCO-L3-T0-NTMS-P0-BOP (130)	Previous	1,520	50%	700	903	327	576	\$ 6,367,378	\$ 3,183,689
W-5, Y-23	Bryant Irvin (1)	Altamesa to 2,280' S of Altamesa	0.43	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	50%	700	602	0	602	\$ 3,223,000	\$ 1,611,500
W-6	Harris	Dutch Branch to Altamesa	0.49	4	NCO (E) (4U)	Previous	551	100%	650	1,274	270	1,004	\$ 1,256,097	\$ 1,256,097
SUBTOTAL										6,001	2,475	3,526	28,262,707	\$ 18,487,902

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775  
TOTAL ROADWAY COST IN SERVICE AREA W \$ 18,511,677

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area X

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
X-1	Altamesa (3)	Oak Grove to Wichita	1.31	2	CCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	1,703	0	1,703	\$ 8,394,000	\$ 8,394,000
X-2	Altamesa (4)	Lana to 600' E of Lana	0.11	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	143	0	143	\$ 645,000	\$ 645,000
X-3	Altamesa (5)	600' E of Lana to 650' W of Forest Hill	0.34	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	50%	650	221	0	221	\$ 1,940,000	\$ 970,000
X-4	Altamesa (6)	650' W of Forest Hill to Forest Hill	0.12	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	156	0	156	\$ 699,000	\$ 699,000
X-5	Joel East	Oak Grove to Wichita	1.10	2	CCO-L1-T0-TWLT-P0-BOP (80)	Widening	238	100%	650	1,430	262	1,168	\$ 6,120,000	\$ 6,120,000
X-6	Everman Kennedale (1)	Anglin to 190' E of Anglin	0.04	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	165	100%	650	52	7	45	\$ 763,000	\$ 763,000
X-7	Everman Kennedale (2)	2,670' E of Anglin to 3,645' E of Anglin	0.18	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	165	100%	650	234	30	204	\$ 1,952,000	\$ 1,952,000
X-8	Everman Kennedale (3)	3,645' E of Anglin to 5,350' W of Anglin	0.32	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	165	100%	650	416	53	363	\$ 1,740,000	\$ 1,740,000
X-9	Enon	2,635' W of Anglin to Anglin	0.50	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	161	100%	650	650	81	570	\$ 2,689,000	\$ 2,689,000
X-10, Z-1	Everman (1)	Butterwick to Cameron Hill	0.56	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	50%	700	784	0	784	\$ 5,459,000	\$ 2,729,500
X-11, Z-2	Everman (2)	Cameron Hill to 110' E of Sheridan	0.25	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,310	50%	700	350	164	186	\$ 934,000	\$ 467,000
X-12	Hemphill (1)	Sunderland to Sycamore School	0.79	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	296	100%	700	2,212	234	1,978	\$ 2,904,000	\$ 2,904,000
X-13	Hemphill (2)	360' S of Sycamore School to 815' N of Everman	0.41	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	309	100%	700	1,148	127	1,021	\$ 1,530,000	\$ 1,530,000
X-14	Hemphill (3)	815' N of Everman to Everman	0.15	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	420	0	420	\$ 1,153,000	\$ 1,153,000
X-15	Oak Grove (1)	Englad to Campus	0.35	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	285	100%	700	980	100	880	\$ 2,456,000	\$ 2,456,000
X-16	Oak Grove (2)	470' S of Alta Mesa to Railroad	0.10	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	689	100%	700	280	69	211	\$ 714,000	\$ 714,000
X-17	Oak Grove (3)	Railroad to Joel East	0.34	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	689	100%	700	952	234	718	\$ 1,613,000	\$ 1,613,000
X-18	Oak Grove (4)	Joel East to Everman	1.25	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	530	100%	650	3,250	663	2,588	\$ 9,937,000	\$ 9,937,000
X-19	Wichita (1)	345' N of Altamesa to Joel East	0.20	4	CCO-L2-T0-NTMS-P0-BOP (110)	Widening	1,165	100%	700	560	233	327	\$ 1,431,000	\$ 1,431,000
X-20	Wichita (2)	Joel East to 960' S of Joel East	0.18	4	CCO-L2-T0-NTMS-P0-BOP (110)	Widening	1,165	100%	700	504	210	294	\$ 1,320,000	\$ 1,320,000
X-21	Forest Hill	Lon Stephenson to 905' S of Hanna Ranch	0.72	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	876	100%	700	2,016	631	1,385	\$ 5,084,000	\$ 5,084,000
X-22	Anglin	Lon Stephenson to Enon	1.00	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	440	100%	650	1,300	440	860	\$ 5,825,000	\$ 5,825,000
X-23	Dick Price	1,935' N of Shadey Ln to 310' S of Shadey Ln	0.43	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	573	100%	650	559	246	313	\$ 2,291,000	\$ 2,291,000
SUBTOTAL										20,320	3,781	16,539	67,593,000	\$ 63,426,500

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA X \$ 63,450,275

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area Y

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
W-2, Y-1	Altamesa (1)	Bryant Irvin to Harris	0.52	6	NCO-L3-T0-NTMS-P0-BOP (130)	Previous	1,205	50%	700	1,092	313	779	\$ 7,673,507	\$ 3,836,753
W-3, Y-2	Altamesa (2)	Harris to Chisholm Trail	0.16	6	NCO-L3-T0-NTMS-P0-BOP (130)	Previous	1,520	50%	700	336	122	214	\$ 2,285,725	\$ 1,142,863
W-4, Y-3	Altamesa (3)	Chisholm Trail to Granbury	0.43	6	NCO-L3-T0-NTMS-P0-BOP (130)	Previous	1,520	50%	700	903	327	576	\$ 6,367,378	\$ 3,183,689
Y-4	Columbus Trail (1)	Bryant Irvin (Future) to Old Granbury	0.22	4	CMU-L2-T0-TWLT-P0-BLC (110)	New	New	100%	650	572	0	572	\$ 1,881,000	\$ 1,881,000
Y-5	Columbus Trail (2)	Old Granbury to Brewer (Future)	0.16	4	CMU-L2-T0-TWLT-P0-BLC (110)	Widening	200	100%	650	416	32	384	\$ 1,963,000	\$ 1,963,000
Y-6	Sycamore School (1)	Brewer (Future) to Chisholm Trail	0.14	4	CCO-L2-T0-NTMS-P0-BOP (110)	Widening	200	100%	700	392	28	364	\$ 1,004,000	\$ 1,004,000
Y-7	Sycamore School (2)	Summer Creek to Creek Meadows	0.13	4	CCO (E)	Previous	617	100%	700	364	80	284	\$ 182,692	\$ 182,692
Y-8	Risinger (1)	760' E of McCart to Poynter	0.28	4	SYS-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	370	100%	700	784	104	680	\$ 1,025,000	\$ 1,025,000
Y-9	Risinger (2)	Poynter to 275' E of Carolina	0.39	4	SYS-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,092	0	1,092	\$ 2,984,000	\$ 2,984,000
Y-10	Risinger (3)	275' E of Carolina to FM 731	0.45	4	SYS-L2-T0-NTMS-P0-BOP (110)	Widening	56	100%	700	1,260	25	1,235	\$ 3,949,000	\$ 3,949,000
Y-11	McPherson (1)	Risinger to 795' E of Risinger	0.15	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	64	100%	700	420	10	410	\$ 570,000	\$ 570,000
Y-12	McPherson (2)	795' E of Risinger to Chisholm Trail SBFR	0.89	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	64	100%	700	2,492	57	2,435	\$ 3,386,000	\$ 3,386,000
Y-13	McPherson (3)	Summer Creek to Willow Branch	0.42	4	NCO-L2-T0-NTMS-P0-BLS (110)	Previous	671	100%	700	1,176	282	894	\$ 1,357,532	\$ 1,357,532
Y-14	McPherson (4)	Cleburne to 3970' E of Cleburne	0.75	4	NCO-L2-T0-NTMS-P0-BLS (110)	New	New	100%	700	2,100	0	2,100	\$ 5,722,000	\$ 5,722,000
Y-15	Stewart Feltz (1)	Brewer to Chisholm Trail	0.35	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	910	0	910	\$ 2,816,000	\$ 2,816,000
Y-16	Stewart Feltz (2)	Chisholm Trail to Cleburne Crowley	0.23	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	598	0	598	\$ 1,850,000	\$ 1,850,000
Y-17	Summer Creek (1)	2,515' S of Stewart Feltz (Future) to 3,055' S of Stewart Feltz	0.10	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	9	100%	650	260	1	259	\$ 794,000	\$ 794,000
Y-18	Summer Creek (2)	Stewart Feltz (Future) to 2,515' S of Stewart Feltz	0.48	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,248	0	1,248	\$ 3,892,000	\$ 3,892,000
Y-19	Cleburne Crowley (1)	Stewart Feltz (Future) to Cleburne Crowley (Existing)	0.77	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	2,002	0	2,002	\$ 6,267,000	\$ 6,267,000
Y-20	Cleburne Crowley (2)	Cleburne Crowley (Existing) to 480' W of Cleburne	0.22	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	174	100%	650	572	38	534	\$ 1,658,000	\$ 1,658,000
Y-21	Cleburne Crowley (3)	480' W of Cleburne to Cleburne	0.09	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	174	100%	650	234	16	218	\$ 690,000	\$ 690,000
Y-22	Cleburne Crowley (4)	Cleburne to 945' E of Cleburne	0.18	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	177	100%	650	234	32	202	\$ 965,000	\$ 965,000
W-5, Y-23	Bryant Irvin (1)	Altamesa to 2,280' S of Altamesa	0.43	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	50%	700	602	0	602	\$ 3,223,000	\$ 1,611,500
Y-24	Bryant Irvin (2)	2,280' S of Altamesa to Columbus (Future)	0.82	4	CMU-L2-T0-TWLT-P0-BLC (110)	New	New	100%	650	2,132	0	2,132	\$ 7,028,000	\$ 7,028,000
Y-25	Bryant Irvin (3)	Columbus Trail (Future) to McPherson	1.83	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	4,758	0	4,758	\$ 14,593,000	\$ 14,593,000
Y-26	Brewer (1)	Columbus Trail to 2,740' S of Columbus Trail	0.52	4	CMU-L2-T0-TWLT-P0-BLC (110)	New	New	100%	650	1,352	0	1,352	\$ 4,423,000	\$ 4,423,000
Y-27	Brewer (2)	Risinger to Rockrose	0.47	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,316	0	1,316	\$ 3,624,000	\$ 3,624,000
Y-28	Brewer (3)	Rockrose to McPherson	0.16	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	100	100%	700	448	16	432	\$ 859,000	\$ 859,000
Y-29	Brewer (4)	Mcpherson to Stewart Feltz (Future)	2.00	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	5,600	0	5,600	\$ 14,952,000	\$ 14,952,000
Y-30	Brewer (5)	Stewart Feltz (Future) to 4,935' S of Stewart Feltz	0.93	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	1,209	0	1,209	\$ 5,306,000	\$ 5,306,000
Y-31	Granbury	445' S of Altamesa to 275' S of Mesa Springs	0.23	4	NCO (E)	Previous	1,552	100%	700	644	357	287	\$ 1,807,652	\$ 1,807,652
Y-32	Granbury/Summer Creek	Summer Meadows to Sycamore School	0.33	4	NCO (E)	Previous	1,552	100%	700	924	512	412	\$ 465,526	\$ 465,526
Y-33	Summer Creek (3)	Sycamore School to Columbus	0.20	4	NCO (E)	Previous	1,852	100%	700	560	370	190	\$ 290,954	\$ 290,954
Y-34	Summer Creek (4)	145' N of Summer Park to Risinger	0.42	4	NCO (E)	Previous	1,852	100%	700	1,176	778	398	\$ 1,357,532	\$ 1,357,532
Y-35	Summer Creek (5)	Risinger to McPherson	0.66	4	NCO (E)	Previous	333	100%	700	1,848	220	1,628	\$ 2,133,265	\$ 2,133,265
Y-36	Summer Creek (6)	McPherson to Sunflower Ridge	0.45	4	CCO-L2-T0-NTMS-P0-BLC (110) (1/2)	Widening	113	100%	700	1,260	51	1,209	\$ 1,759,000	\$ 1,759,000
Y-37	Summer Creek (7)	Sunflower Ridge to 710' N of Cleburne Crowley	0.81	4	NCO-L2-T0-NTMS-P0-BLS (110)	New	New	100%	700	2,268	0	2,268	\$ 6,197,000	\$ 6,197,000
Y-38	Cleburne (1)	Cleburne Crowley to 3,185' S of Cleburne Crowley	0.60	4	NCO-L2-T0-NTMS-P0-BLS (110)	Widening	29	100%	700	1,680	17	1,663	\$ 4,358,000	\$ 4,358,000
Y-39	Cleburne (2)	3,185' S of Cleburne Crowley to Longhorn Trail	0.33	4	NCO-L2-T0-NTMS-P0-BLS (110)	New	29	100%	700	924	10	914	\$ 2,516,000	\$ 2,516,000
Y-40	Hulen	Winnipeg to 335' N of Rancho Verde	0.28	2	NCO-L1-T0-TWLT-P0-BOP (80) (1/2)	Previous	242	100%	650	364	68	296	\$ 1,083,941	\$ 1,083,941
Y-41	Cleburne (3)	335' N of Rancho Verde to 330' S of Rancho Verde	0.13	2	NCO-L1-T0-TWLT-P0-BOP (80)	Previous	242	100%	650	169	31	138	\$ 486,988	\$ 486,988
Y-42	Cleburne (4)	330' S of Rancho Verde to 2,295' S of Rancho Verde	0.37	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	242	100%	650	481	90	391	\$ 2,005,000	\$ 2,005,000
Y-43	McCart (1)	590' S of Risinger to 120' S of Cayman	0.31	4	SYS-L2-T0-NTMS-P0-BLS (110) (1/2)	Widening	161	100%	700	868	50	818	\$ 1,127,000	\$ 1,127,000
Y-44	McCart (2)	120' S of Cayman to McPherson (Future)	0.57	4	SYS-L2-T0-NTMS-P0-BLS (110)	New	New	100%	700	1,596	0	1,596	\$ 4,485,000	\$ 4,485,000
Y-45	McCart (3)	McPherson (Future) to 140' N of Twinleaf	0.60	4	NCO-L2-T0-NTMS-P0-BLS (110)	New	New	100%	700	1,680	0	1,680	\$ 4,554,000	\$ 4,554,000
Y-46	McCart (4)	Mountain Meadow to 1,600' S of Mountain Meadow	0.30	4	NCO-L2-T0-NTMS-P0-BLS (110) (1/2)	Widening	94	100%	700	840	28	812	\$ 1,141,000	\$ 1,141,000
Y-47	Industrial	McCart to 1,005' E of McCart	0.19	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	494	0	494	\$ 1,520,000	\$ 1,520,000
SUBTOTAL										54,650	4,064	50,586	150,578,691	\$ 140,803,887

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775  
TOTAL ROADWAY COST IN SERVICE AREA Y \$ 140,827,662

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]  
2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]  
3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]  
Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

City of Fort Worth - 2017 Transportation Impact Fee Study

TIP Service Units of Supply

Service Area Z

9/29/2017

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	Status	PEAK HOUR VOLUME	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI TOTAL DEMAND PK-HR	EXCESS CAPACITY PK-HR VEH-MI	TOTAL PROJECT COST	TOTAL PROJECT COST IN SERVICE AREA
X-10, Z-1	Everman (1)	Butterwick to Cameron Hill	0.56	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	50%	700	784	0		\$ 5,459,000	\$ 2,729,500
X-11, Z-2	Everman (2)	Cameron Hill to 110' E of Sheridan	0.25	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	1,310	50%	700	350	164	186	\$ 934,000	\$ 467,000
Z-3	Shelby	Race to Rendon	1.00	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	471	50%	700	1,400	236	1,165	\$ 7,055,000	\$ 3,527,500
Z-4	Risinger (4)	FM 731 to Hemphill	0.76	4	SYS-L2-T0-NTMS-P0-BOP (110)	Widening	492	100%	700	2,128	374	1,754	\$ 5,897,000	\$ 5,897,000
Z-5	Risinger (5)	Hemphill to IH-35 W	0.87	4	SYS-L2-T0-NTMS-P0-BOP (110)	Widening	949	100%	700	2,436	826	1,610	\$ 7,042,000	\$ 7,042,000
Z-6	Risinger (6)	IH-35 W to 1,370' W of IH-35 W	0.26	4	SYS-L2-T0-NTMS-P0-BOP (110)	Widening	949	100%	700	728	247	481	\$ 1,889,000	\$ 1,889,000
Z-7	Risinger (7)	1,370' W of IH-35 W to Oak Grove	0.78	4	SYS-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,184	0	2,184	\$ 6,019,000	\$ 6,019,000
Z-8	Oak Grove Shelby (1)	Oak Grove to 1,400' E of Michael	0.58	4	SYS-L2-T0-NTMS-P0-BOP (110)	Widening	108	100%	700	1,624	63	1,561	\$ 4,182,000	\$ 4,182,000
Z-9	Oak Grove Shelby (2)	1,400' E of Michael to Race	0.43	4	SYS-L2-T0-NTMS-P0-BOP (110)	Widening	108	100%	700	1,204	46	1,158	\$ 3,156,000	\$ 3,156,000
Z-10	Oak Grove Shelby (3)	Race to Rendon	1.00	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	50%	650	650	0	650	\$ 5,654,000	\$ 2,827,000
Z-11	McPherson (5)	FM 731 to 1,210' W of Deer	1.30	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	3,640	0	3,640	\$ 10,434,000	\$ 10,434,000
Z-12	McPherson (6)	Bilsky Bay to IH-35 W SBFR	0.09	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	986	100%	700	252	89	163	\$ 458,135	\$ 458,135
Z-13	McPherson (7)	IH-35 W SBFR to IH-35 W NBFR	0.13	4	NCO-L2-T0-NTMS-P0-BOP (110)	Previous	986	100%	700	364	128	236	\$ 4,061,322	\$ 4,061,322
Z-14	McPherson (8)	IH-35 W NBFR to Oak Grove	0.67	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,876	0	1,876	\$ 4,975,000	\$ 4,975,000
Z-15	McPherson (9)	Oak Grove to Forest Hill Everman	1.44	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	332	100%	650	3,744	478	3,266	\$ 10,938,000	\$ 10,938,000
Z-16	McAlister (1)	1,430' W of IH-35 W SBFR to IH-35 W SBFR	0.27	4	NCO (E)	Previous	827	100%	700	756	223	533	\$ 1,538,879	\$ 1,538,879
Z-17	McAlister (2)	IH-35 W NBFR to Stone	0.24	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	312	0	312	\$ 1,372,000	\$ 1,372,000
Z-18	Alsbury	IH-35 W NBFR to Stone	0.22	4	NCO-L2-T0-TWLT-P0-BOP (110)	Previous	540	100%	650	572	119	453	\$ 912,218	\$ 912,218
Z-19	Hemphill (4)	Everman to Risinger	0.86	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,408	0	2,408	\$ 7,975,000	\$ 7,975,000
Z-20	Hemphill (5)	3,870' N of McPherson to McPherson	0.73	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,044	0	2,044	\$ 5,469,000	\$ 5,469,000
Z-21	Hemphill (6)	McPherson to 655' N of Brasenose	0.91	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,548	0	2,548	\$ 8,697,000	\$ 8,697,000
Z-22	Hemphill (7)	655' N of Brasenose to Nuffield	0.12	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	254	100%	700	336	30	306	\$ 459,000	\$ 459,000
Z-23	Hemphill (8)	240' S of FM 1187 to 130' S of Windy Knoll	0.40	4	NCO-L2-T0-TWLT-P0-BOP (110) (1/2)	Widening	130	100%	650	1,040	52	988	\$ 1,758,000	\$ 1,758,000
Z-24	Oak Grove (5)	Forum to 605' S of Forum	0.11	4	CCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	421	100%	700	308	46	262	\$ 435,000	\$ 435,000
Z-25	Oak Grove (6)	605' S of Forum to Risinger	0.25	4	CCO-L2-T0-TWLT-P0-BOP (110)	Widening	421	100%	650	650	105	545	\$ 1,947,000	\$ 1,947,000
Z-26	Oak Grove (7)	Risinger to 1,020' S of Risinger	0.19	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	411	100%	650	494	78	416	\$ 1,554,000	\$ 1,554,000
Z-27	Oak Grove (8)	1,025' S of Risinger to Buffalo Springs	0.59	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	422	100%	650	1,534	249	1,285	\$ 4,701,000	\$ 4,701,000
Z-28	Oak Grove (9)	Buffalo Springs to McPherson	0.16	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	422	100%	650	416	68	348	\$ 1,191,000	\$ 1,191,000
Z-29	Oak Grove (10)	McPherson to Oak Grove E	0.44	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	546	100%	650	1,144	240	904	\$ 3,476,000	\$ 3,476,000
Z-30	Stone (1)	Oak Grove E to Nelson	0.52	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	546	100%	700	1,456	284	1,172	\$ 3,696,000	\$ 3,696,000
Z-31	Stone (2)	Nelson to FM 1187	0.90	4	CCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,520	0	2,520	\$ 8,690,000	\$ 8,690,000
Z-32	Stone (3)	FM 1187 to McAlister	0.44	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,144	0	1,144	\$ 3,597,000	\$ 3,597,000
Z-33	Stone (4)	McAlister to Alsbury	0.62	4	CCO-L2-T0-TWLT-P0-BOP (110)	New	New	100%	650	1,612	0	1,612	\$ 5,045,000	\$ 5,045,000
Z-34	Wichita (3)	Shelby to Oak Grove Shelby	0.52	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	1,456	0	1,456	\$ 3,908,000	\$ 3,908,000
Z-35	Wichita (4)	Race to 795' W of Race	0.15	4	NCO-L2-T0-NTMS-P0-BOP (110) (1/2)	Widening	100	100%	700	420	15	405	\$ 556,000	\$ 556,000
Z-36	Wichita (5)	795' W of Race to McPherson	0.84	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,352	0	2,352	\$ 6,695,000	\$ 6,695,000
Z-37	Wichita (6)	McPherson to Nicole	0.96	4	NCO-L2-T0-NTMS-P0-BOP (110)	New	New	100%	700	2,688	0	2,688	\$ 8,211,000	\$ 8,211,000
Z-38	Oak Grove S (1)	Nelson to 310' S of Nelson	0.06	4	NCO-L2-T0-TWLT-P0-BOP (110)	New	407	100%	650	156	24	132	\$ 470,000	\$ 470,000
Z-39	Oak Grove S (2)	310' S of Nelson to 260' S of Smallwood	0.15	4	NCO-L2-T0-TWLT-P0-BOP (110)	Widening	407	100%	650	390	61	329	\$ 1,177,000	\$ 1,177,000
Z-40	Wildcat Way (1)	FM 1187 to Burleson Retta	1.55	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	2,015	0	2,015	\$ 9,867,000	\$ 9,867,000
Z-41	Wildcat Way (2)	Burleson Retta to 455' S of Thomas Crossing	0.44	2	NCO-L1-T0-TWLT-P0-BOP (80)	Widening	531	100%	650	572	234	338	\$ 2,363,000	\$ 2,363,000
Z-42	Wildcat Way (3)	Abner Lee to 615' S of Abner Lee	0.12	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	156	0	156	\$ 661,000	\$ 661,000
Z-43	Abner Drive	1,195' W of Wildcat Way to 260' W of Wildcat Way	0.18	2	NCO-L1-T0-TWLT-P0-BOP (80)	New	New	100%	650	234	0	234	\$ 1,006,000	\$ 1,006,000
Z-44	Forest Hill	645' N of Chambers Creek to Shelby	0.45	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	679	50%	700	630	153	477	\$ 3,213,000	\$ 1,606,500
Z-45	Rendon	Shelby to Oak Grove Shelby	0.48	4	NCO-L2-T0-NTMS-P0-BOP (110)	Widening	714	50%	700	672	171	501	\$ 3,428,000	\$ 1,714,000
SUBTOTAL										56,399	4,803	51,596	182,221,554	\$ 169,350,054

Transportation Impact Fee Study Cost (Per Service Area) \$ 23,775

TOTAL ROADWAY COST IN SERVICE AREA Z \$ 169,373,829

1. Veh-Mi Supply Pk-Hr Total = [Length (mi)] \* [Exist Lanes] \* [Veh-Mi Capacity Pk-Hr Per Ln] \* [% in Service Area]

2. Veh-Mi Demand Pk-Hr Total = [ Length (mi)] \* [PM Peak Hour Vol] \* [% In Service Area]

3. Excess Capacity Pk-Hr Veh-Mi = [Veh-Mi Supply Pk-Hr Total] - [Veh-Mi Demand Pk-Hr Total]

Note: Mileage lengths are shown as rounded to the nearest 0.01. Actual calculations were performed using exact mileage length [Length (ft) / 5,280].

## **Appendix C – Existing Roadway Facilities Inventory**

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area A**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Beach	410' N of Saratoga Downs	Timberland	3,696	0.70	4D	724	685	50%	700	980	493	487	
Beach	2010' N of Eagle	Eagle	2,011	0.38	4D	69	162	100%	700	1,066	88	978	
Beach	380' S of Litsey	1660' S of Litsey	1,278	0.24	2U-R	69	162	100%	150	73	56	17	
Beach	N Alliance Gateway	S Alliance Gateway	399	0.08	6D	25	25	50%	700	159	2	157	
Beach	Eagle	800' S of Eagle	802	0.15	2U-CG	69	162	100%	425	65	35	29	
Cleveland-Gibbs	Litsey	4723' N of Litsey	4,723	0.89	4D	265	141	100%	700	2,505	363	2,141	
Eagle	1720' W of Beach	Beach	1,719	0.33	4D	69	162	100%	700	912	75	836	
Eagle	I-35W N	1566' E of I-35W N	1,566	0.30	6D	703	429	100%	700	1,246	336	910	
Henrietta Creek	90' W of Seventeen Lakes	Independence	1,634	0.31	2U-CG	97	160	100%	425	132	80	52	
Independence	Westport	Alliance Gateway	4,873	0.92	4D	44	236	100%	700	2,584	258	2,326	
Independence	Alliance Gateway	Henrietta Creek	2,908	0.55	4D	182	263	100%	700	1,542	245	1,297	
Litsey	2620' E of IH-35W	1300' W of Cleveland Gibbs	1,434	0.27	2U-R	27	52	100%	150	81	21	60	
Litsey	1300' W of Cleveland Gibbs	Cleveland Gibbs	1,299	0.25	2U	27	52	100%	425	209	19	190	
Litsey	Cleveland Gibbs	875' E of Bluffdale	4,244	0.80	4D	146	295	100%	700	2,251	355	1,896	
Old Denton	1095' S of Westport	Alliance Gateway	1,640	0.31	2U-CG	56	813	100%	425	132	270	-138	138
Old Denton	Westport	1095' S of Westport	1,095	0.21	2U	56	813	100%	425	176	180	-4	4
Park Vista	Keller Haslet	415' N of Timberland	2,547	0.48	2U-CG	113	338	100%	425	205	218	-13	13
Park Vista	589' S of Westport	Westport	589	0.11	4D	113	338	100%	700	312	50	262	
Park Vista	Westport	Alliance Gateway	2,881	0.55	4D	619	375	100%	700	1,528	542	986	
Park Vista	Keller Haslet	589' S of Westport	2,665	0.50	4D	113	338	100%	700	1,413	228	1,186	
Park Vista	3444' N of Alliance Gateway	Alliance Gateway	3,444	0.65	2U-CG	5	36	100%	425	277	27	250	
Park Vista	415' N of Timberland	Timberland	415	0.08	4D	113	338	100%	700	220	35	185	
Timberland	Beach	2110' E of Beach	2,111	0.40	4D	64	449	50%	700	560	103	457	
Timberland	355' E of Park Vista	425' E of Harvest Oaks	2,422	0.46	2U-CG	54	29	50%	425	97	19	78	
Timberland	485 E of Lilybrook	N Caylor	1,555	0.29	2U-R	64	449	50%	150	44	76	-31	31
Timberland	375' E of N Caylor	Park Vista	1,138	0.22	4D	64	449	50%	700	302	55	246	
Timberland	N Caylor	375' E of N Caylor	375	0.07	2U	64	449	50%	425	30	18	12	
Timberland	Park Vista	355' E of Park Vista	355	0.07	4D	54	29	50%	700	94	3	91	
Westport	640' E of IH-35W NBFR	Old Denton	2,636	0.50	2U	321	1,153	100%	425	424	736	-311	311
Westport	Old Denton	Beach	2,609	0.49	2U	238	586	100%	425	420	407	13	
Westport	Independence	Main	1,555	0.29	4D	382	253	100%	700	825	187	638	
Westport	400' E of Park Vista	1370' W of Independence	1,937	0.37	2U-CG	157	339	100%	425	156	182	-26	26
Westport	1370' W of Independence	Independence	1,370	0.26	4D	157	339	100%	700	727	129	598	
Westport	Alta Vista	High Mesa	1,165	0.22	4D	50	50	100%	700	618	22	596	
Westport	N Alliance Gateway	S Alliance Gateway	431	0.08	6D	25	25	100%	700	343	4	339	
Westport	624' W of Park Vista	Park Vista	624	0.12	4D	100	100	100%	700	331	24	307	
Westport	Park Vista	398' E of Park Vista	398	0.08	4D	157	339	100%	700	211	37	174	
Westport	IH-35W NBFR	640' E of IH-35W NBFR	640	0.12	2U-CG	321	1,153	100%	425	52	179	-127	127
<b>SUBTOTAL</b>			<b>69,183</b>	<b>13</b>							<b>6,157</b>	<b>17,144</b>	<b>650</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area AA**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Dale Earnhardt	Cleveland-Gibbs	IH-35W	1,420	0.27	4U	140	185	100%	650	699	87	612	
Eagle	Heritage	IH-35W	1,411	0.27	6D	703	429	100%	700	1122	303	820	
Eagle	1861 Ft E of Old FM Rd 156	Heritage	5,843	1.11	6D	578	352	100%	700	4647	1,029	3618	
FM 156	6739' N of Intermodal	Intermodal	6,739	1.28	2U-H	132	205	50%	700	893	215	678	
FM 156	2384' N of Old FM Rd 156	905' S of Highway 114	1,141	0.22	3U	744	1085	100%	650	281	395	-114	114
FM 156	12232' S of Sam Reynolds	Sam Reynolds	5,244	0.99	2U-H	812	848	50%	700	695	824	-129	129
FM 156	Keller Haslet	Intermodal	1,879	0.36	2U-H	138	118	100%	700	498	91	407	
FM 156	905' S of Highway 114	Highway 114	905	0.17	2U-H	744	1085	100%	700	240	314	-74	74
Heritage	Westport	Eagle	11,829	2.24	4D	121	238	100%	700	6273	804	5469	
Intermodal	FM 156	Old Blue Mound	3,708	0.70	2U-CG	201	474	100%	425	298	474	-176	176
Keller Haslet	965' E of John Day	3485' E of John Day	2,519	0.48	2U	148	377	50%	425	203	125	78	
Keller Haslet	2825' W of FM 156	Keller Haslet	464	0.09	2U	148	377	100%	425	75	46	29	
Westport	1418' W of Heritage	Heritage	1,421	0.27	4D	633	1299	50%	700	377	260	117	
Westport	Heritage	IH-35W	1,039	0.20	5D	321	1153	50%	700	344	145	199	
<b>SUBTOTAL</b>			<b>45,563</b>	<b>8.63</b>							<b>5,113</b>	<b>11,534</b>	<b>493</b>



**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area B**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Avondale Haslet	1015' East of Sendera Ranch	1360' West of John Day	3,590	0.68	2U	276	446	100%	425	578	491	87	
Avondale Haslet	Sendera Ranch	1015' East of Sendera Ranch	1,015	0.19	2U	276	446	100%	425	163	139	25	
Avondale Haslet	Willow Springs	Sendera Ranch	3,155	0.60	2U	374	482	100%	425	508	511	-4	4
Avondale Haslet	455' W of Willow Ranch	Willow Springs	1,855	0.35	2U	364	482	100%	425	299	297	1	
Avondale Haslet	1715' E of US 287 NBFR	Bates Aston	2,505	0.47	4U	612	458	100%	650	1234	508	726	
Avondale Haslet	US 287 NBFR	1715' E of US 287 NBFR	1,715	0.32	5U	612	458	100%	700	909	348	562	
Blue Mound	US 287	Wagley Robertson	3,425	0.65	2U	337	350	100%	425	551	446	106	
Blue Mound	Willow Springs	US 287	1,870	0.35	2U	337	350	100%	425	301	243	58	
Diamondback	Rancho Canyon	Sendera Ranch	4,845	0.92	4U	188	376	100%	650	2386	518	1868	
John Day	4515' S of Eagle	Keller Haslet	4,110	0.78	2U-CG	83	66	100%	425	331	116	215	
John Day	1360' S of Eagle	4515' S of Eagle	3,155	0.60	2U-CG	83	66	100%	425	254	89	165	
Keller Haslet	965' E of John Day	3485' E of John Day	2,520	0.48	2U	148	377	50%	425	203	125	78	
Keller Haslet	John Day	965' E of John Day	965	0.18	4U	148	377	100%	650	475	96	379	
Rancho Canyon	Diamondback	Salida	1,375	0.26	4U	94	102	100%	650	677	51	626	
Rancho Canyon	Diamondback	Cabo	1,150	0.22	4U	147	341	100%	650	566	106	460	
Rancho Canyon	Skytop	Salida	1,690	0.32	4U	94	102	100%	650	832	63	769	
Sendera Ranch	Diamondback	450' N of Cactus Spine	3,085	0.58	2U-CG	353	304	100%	425	248	384	-136	136
Sendera Ranch	Suncatcher	275' S of Suncatcher	275	0.05	2U-CG	275	188	100%	425	22	24	-2	2
Sendera Ranch	275' S of Suncatcher	Diamondback	5,875	1.11	4D	275	188	100%	700	3116	515	2600	
Willow Springs	Blue Mound	510' S of Twisting Star	4,940	0.94	2U	396	335	100%	425	795	684	111	
Willow Springs	US 287	Blue Mound	1,420	0.27	2U	61	112	100%	425	229	47	182	
Willow Springs	1235' S of Singleton	US 287	2,480	0.47	2U	61	112	100%	425	399	81	318	
Willow Springs	Avondale Haslet	200' S of Velda Kay	1,610	0.30	2U	61	112	100%	425	259	53	206	
Willow Springs	200' S of Velda Kay	1235' S of Singleton	2,675	0.51	2U	61	112	100%	425	431	88	343	
<b>SUBTOTAL</b>			<b>61,300</b>	<b>11.61</b>							<b>6,022</b>	<b>9,745</b>	<b>141</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area C**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Basswood	FM 156	Robert W Downing	2,880	0.55	4D	387	441	100%	700	1527	452	1076	
Basswood	Robert W Downing	Bridge	975	0.18	4D	642	643	100%	700	517	237	280	
Basswood	Horseman	Candler	1,535	0.29	4D	726	1,002	100%	700	814	502	312	
Basswood	Bridge	Horseman	925	0.18	4U	642	643	100%	650	455	225	230	
Basswood	Candler	I-35W	1,640	0.31	4D	726	1,002	100%	700	870	537	333	
FM 156	1003' N of Bailey Boswell Rd	1123' S of Harmon	2,155	0.41	2U	648	955	100%	425	347	654	-307	307
FM 156	Harmon	Heritage Trace	4,560	0.86	2U	409	536	100%	425	734	816	-82	82
FM 156	Heritage Trace	985' S of Hwy 287 & 81	2,230	0.42	2U	389	536	100%	425	359	391	-32	32
FM 156	2312' S of Bonds Ranch	Bonds Ranch	2,315	0.44	2U	337	376	100%	425	373	313	60	
FM 156	1123' S of Harmon	Harmon	1,125	0.21	2U	648	955	100%	425	181	342	-160	160
FM 156	985' S of Hwy 287 & 81	2312' S of Bonds Ranch	1,775	0.34	4D	337	376	100%	700	941	240	702	
Bonds Ranch	625' E Wagley Robertson	US 287	4,585	0.87	2U	563	666	50%	425	369	534	-165	165
Bonds Ranch	Hwy 287 & 81	FM 156	2,770	0.52	2U	370	471	100%	425	446	441	5	
Bonds Ranch	FM 156	Harmon	5,295	1.00	2U	509	479	100%	425	852	991	-138	138
Bonds Ranch	Wagley Robertson	625' E of Wagley Robertson	625	0.12	3U	563	666	100%	650	154	145	8	
Golden Triangle	Harmon	2243' E of Harmon	2,245	0.43	4D	374	453	100%	700	1191	352	839	
Golden Triangle	Misty Redwood	470' E of Misty Redwood	470	0.09	4D	374	453	100%	700	249	74	176	
Golden Triangle	615' E of Harmon	I-35W	1,425	0.27	4D	1,090	710	100%	700	756	486	270	
Golden Triangle	470' E of Misty Redwood	Golden Heights	1,335	0.25	2U-CG	374	453	100%	425	107	209	-102	102
Harmon	FM 156	Harmon B	4,420	0.84	4U	336	491	100%	650	2177	692	1484	
Harmon	Harmon B	Desperado	685	0.13	4U	336	491	100%	650	337	107	230	
Harmon	Heritage Trace	US 287 NBFR	5,240	0.99	2U	469	526	100%	425	844	987	-144	144
Harmon	Bonds Ranch	Heritage Trace	3,440	0.65	2U-CG	259	396	100%	425	277	427	-150	150
Harmon	2475' S of Keller Hicks	640' N of Golden Triangle	855	0.16	2U	663	441	100%	425	138	179	-41	41
Heritage Trace	Harmon	2743' E of Harmon	2,745	0.52	4D	595	612	100%	700	1456	628	828	
Heritage Trace	1645' W of North	North	1,645	0.31	4D	595	612	100%	700	872	376	496	
Heritage Trace	1145' E of Hwy 287 & 81	Harmon	3,085	0.58	4D	119	145	100%	700	1636	154	1482	
Heritage Trace	Copper Crossing	FM 156	3,325	0.63	4D	59	115	100%	700	1763	110	1654	
Horseman	Basswood	2421' N of Basswood	2,420	0.46	3U	611	336	100%	650	596	434	162	
Horseman	Bailey Boswell	500' N of Canchim	2,080	0.39	3U	611	336	100%	650	512	373	139	
Keller Hicks	Harmon (Future)	IH-35W SBFR	1,755	0.33	2U	411	607	100%	425	283	338	-56	56
Keller Hicks	Harmon	Harmon (Future)	1,170	0.22	2U	411	607	100%	425	188	226	-37	37
N. Tarrant	US 287 NBFR	335' E of US 287 NBFR	335	0.06	2U	109	363	100%	425	54	30	24	
N. Tarrant Pkwy	1211' W of Bailey Boswell-Tp	2095' E of 35	1,210	0.23	6D	109	363	100%	700	963	108	854	
N. Tarrant Pkwy	Bailey Boswell-Tp	Tarrant	2,095	0.40	6D	109	363	100%	700	1666	187	1479	
Wagley Robertson	245' N of US 287	565' N of Hawks Landing	1,195	0.23	4D	50	50	100%	700	634	23	611	
Wagley Robertson	690' N of Quicksilver	1795' S of Bent Oak	3,310	0.63	2U	192	273	100%	425	533	292	241	
Wagley Robertson	Hawks Landing	310' N of Bonds Ranch	2,145	0.41	2U-CG	50	50	100%	425	173	41	132	
Wagley Robertson	565' N of Hawks Landing	Hawks Landing	565	0.11	2U-CG	50	50	100%	425	45	11	35	
Wagley Robertson	145' N of Mystic River	715' S of Mystic River	860	0.16	2U	100	100	100%	425	138	33	106	
<b>SUBTOTAL</b>			<b>85,445</b>	<b>16.18</b>							<b>13,694</b>	<b>12,833</b>	<b>1,414</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area D**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Basswood	North	Sandshell	2,140	0.41	4D	1,220	1,368	50%	700	567	524	43	
Basswood	Sandshell	Riverside	2,215	0.42	4D	1,220	1,368	50%	700	587	543	44	
Basswood	Beach	2253' E of Beach	2,255	0.43	4D	840	1,240	50%	700	598	444	154	
Basswood	978' W of Beach	Beach	980	0.19	4D	1,034	1,142	50%	700	260	202	58	
Basswood	Riverside	2913' E of Riverside	2,915	0.55	4D	1,034	1,142	50%	700	773	601	172	
Basswood	4595' W of Park Vista	Park Vista	4,595	0.87	4D	840	1,240	50%	700	1,218	905	313	
Basswood	Park Vista	Parkwood Hill	1,325	0.25	4D	846	1,115	50%	700	351	246	105	
Basswood	Parkwood Hill	720' E of Parkwood Hill	775	0.15	4D	846	1,115	50%	700	205	144	62	
Beach	Basswood	2197' N of Basswood	2,195	0.42	6D	1,527	1,805	100%	700	1,746	1,385	361	
Beach	2587' S of Summerfields	Summerfields	2,585	0.49	6D	1,527	1,805	100%	700	2,056	1,631	425	
Beach	Summerfields	Tarrant	3,025	0.57	6D	1,567	1,907	100%	700	2,406	1,990	416	
Beach	Heritage Trace	155' S of Springview Ln	5,845	1.11	4D	1,000	1,500	100%	700	3,100	2,768	332	
Beach	Golden Triangle	Vista Meadows	3,925	0.74	4D	814	1,547	100%	700	2,081	1,755	326	
Beach	Keller Hicks	Golden Triangle	3,935	0.75	4D	684	1,404	100%	700	2,087	1,556	531	
Beach	Timberland	Keller Hicks	5,465	1.04	4D	738	879	100%	700	2,898	1,674	1,224	
Beach	410' N of Saratoga Downs	Timberland	3,695	0.70	4D	724	685	50%	700	980	493	487	
Beach	N Alliance Gateway	S Alliance Gateway	400	0.08	6D	25	25	50%	700	159	2	157	
Beach	380' S of Spring Mist Cir	Tarrant	945	0.18	4D	1,000	1,500	100%	700	501	447	54	
Beach	Vista Meadows	Heritage Trace	2,110	0.40	4D	814	1,547	100%	700	1,119	944	175	
Beach	155' S of Springview Ln	380' S of Spring Mist Cir	820	0.16	4D	1,000	1,500	100%	700	435	388	47	
Denton	1173' N of Kroger	1702' N of Kroger	765	0.14	7U	1,510	1,890	50%	700	304	246	58	
Denton	Kroger	1173' N of Kroger	1,175	0.22	7U	1,510	1,890	50%	700	467	378	89	
Denton	2928' S of Main	979' S of Main	1,950	0.37	7U	1,900	1,602	50%	700	776	647	129	
Denton	979' S of Main	Main	980	0.19	7U	1,900	1,602	50%	700	390	325	65	
Denton	5296' S of Main	2928' S of Main	2,370	0.45	7U	1,900	1,602	50%	700	943	786	157	
Denton	7616' S of Main	5296' S of Main	2,320	0.44	7U	1,900	1,602	50%	700	923	769	153	
Golden Triangle	Beach	Park Vista	5,235	0.99	4D	937	960	100%	700	2,776	1,881	895	
Golden Triangle	Old Denton	Beach	5,520	1.05	4D	1,101	889	100%	700	2,927	2,080	847	
Golden Triangle	Ih-35W	Old Denton	2,625	0.50	4D	1,090	710	100%	700	1,392	895	497	
Golden Triangle	2130' E of Park Vista	Katy	3,325	0.63	4D	937	960	50%	700	882	597	284	
Golden Triangle	Park Vista	2130' E of Park Vista	2,130	0.40	4D	937	960	100%	700	1,130	765	364	
Heritage Trace	764' W of Kroger	Kroger	765	0.14	4D	1,016	1,037	100%	700	406	297	108	
Heritage Trace	Old Denton	724' E of Old Denton	725	0.14	4D	1,328	1,086	100%	700	384	331	53	
Heritage Trace	North Freeway	Old Denton	3,190	0.60	6D	1,519	1,115	100%	700	2,538	1,591	946	
Heritage Trace	Beach	5131' E of Beach	5,130	0.97	4D	1,016	1,037	100%	700	2,720	1,995	726	
Heritage Trace	4690' W of Beach	Beach	4,690	0.89	4D	1,328	1,086	100%	700	2,487	2,144	343	
Keller Hicks	Old Denton	600' W of Ridgeview	5,420	1.03	2U	79	113	100%	425	873	197	675	
Keller Hicks	Alta Vista	Park Vista	2,730	0.52	4U	590	921	100%	650	1,344	781	563	
Keller Hicks	Park Vista	Katy	5,290	1.00	2U	437	636	100%	425	852	1,075	-223	223
Keller Hicks	Ih-35W Sbfr	Riverside	1,990	0.38	4D	411	607	100%	700	1,055	384	672	
Keller Hicks	600' W of Ridgeview	Alta Vista	2,330	0.44	5U	79	113	100%	700	1,236	85	1,151	
Kroger	1650' E of Ray White	Main	3,455	0.65	2U	861	816	100%	425	556	1,097	-541	541
Kroger	Ray White	1650' E of Ray White	1,650	0.31	4D	861	816	100%	700	875	524	351	
Main	Kroger	Denton	6,065	1.15	7U	1,502	1,775	50%	700	2,412	1,882	530	
N. Tarrant Pkwy	Beach	Park Vista	5,520	1.05	4D	1,207	1,229	100%	700	2,927	2,547	381	
N. Tarrant Pkwy	Park Vista	Main	4,270	0.81	4D	1,239	1,448	100%	700	2,264	2,173	91	
N. Tarrant Pkwy	Riverside	Beach	5,405	1.02	4D	1,142	1,034	100%	700	2,866	2,228	639	
N. Tarrant Pkwy	Ih-35W	Riverside	3,430	0.65	4D	1,290	1,170	100%	700	1,819	1,598	221	
Old Denton	Alliance Gateway	2190' N of Alliance Gateway	550	0.10	4U	56	813	100%	650	271	91	180	
Park Vista	Basswood	Tarrant	7,855	1.49	4D	718	813	100%	700	4,166	2,278	1,888	
Park Vista	Tarrant	Kroger	3,495	0.66	4D	652	897	100%	700	1,853	1,025	828	

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area D**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Park Vista	Wyndbrook	Mirage	4,010	0.76	2U	492	697	100%	425	646	903	-257	257
Park Vista	Caylor	Keller Hicks	5,825	1.10	4D	483	353	100%	700	3,089	922	2,167	
Park Vista	Timberland	Caylor	910	0.17	4D	134	326	100%	700	483	79	403	
Park Vista	Kroger	603' N of Kroger	605	0.11	4D	492	697	100%	700	321	136	185	
Park Vista	Shiver	Tarrant	2,600	0.49	4D	652	897	100%	700	1,379	763	616	
Riverside	Basswood	3597' N of Basswood	3,595	0.68	4D	644	630	100%	700	1,906	867	1,039	
Riverside	Thompson	Summerfields	1,875	0.36	2U-CG	461	660	100%	425	151	398	-247	247
Riverside	Shiver	Tarrant	2,765	0.52	2U	470	591	100%	425	445	556	-110	110
Riverside	Heritage Trace	5276' N of Heritage Trace	5,275	1.00	4D	526	865	100%	700	2,797	1,390	1,408	
Riverside	1544' S of Golden Triangle	Golden Triangle	1,545	0.29	4D	526	865	100%	700	819	407	412	
Riverside	Keller Hicks	800' N of Golden Triangle	1,635	0.31	2U-CG	647	636	100%	425	132	397	-266	266
Riverside	Timberland	Keller Hicks	1,070	0.20	4D	539	689	100%	700	567	249	319	
Riverside	Timberland	5819' N of Timberland	5,820	1.10	4D	267	813	100%	700	3,086	1,190	1,896	
Riverside	180' N of Hidden Valley	130' S of San Fernando	875	0.17	2U-CG	267	813	100%	425	70	179	-109	109
Riverside	1327' S of Heritage Trace	Heritage Trace	1,325	0.25	4D	470	591	100%	700	703	266	436	
Riverside	800' N of Golden Triangle	Golden Triangle	800	0.15	2U	647	636	100%	425	129	194	-66	66
Riverside	Prairie Vista	Shiver	2,425	0.46	4D	470	591	100%	700	1,286	487	799	
Riverside	Tarrant	Thompson	1,875	0.36	2U	451	634	100%	425	302	385	-83	83
Riverside	Sh 170 Ebfr	180' N of Hidden Valley	975	0.18	2U-CG	56	813	100%	425	78	160	-82	82
Riverside	135' S of San Fernando	325' N of Sawtimber	875	0.17	2U-CG	267	813	100%	425	70	179	-109	109
Riverside	Summerfields	Old Denton Rd	1,535	0.29	2U-CG	461	660	100%	425	124	326	-202	202
Summerfields	Cannonwood	Beach	4,370	0.83	6D	179	101	100%	700	3,476	232	3,244	
Summerfields	Riverside	Cannonwood	930	0.18	2U-CG	179	101	100%	425	75	49	26	
Timberland	Beach	2110' E of Beach	2,110	0.40	4D	64	449	50%	700	559	103	457	
Timberland	355' E of Park Vista	425' E of Harvest Oaks	2,420	0.46	2U-CG	54	29	50%	425	97	19	78	
Timberland	485 E of Lilybrook	N Caylor	1,555	0.29	2U-R	64	449	50%	150	44	76	-31	31
Timberland	375' E of N Caylor	Park Vista	1,140	0.22	4D	64	449	50%	700	302	55	247	
Timberland	N Caylor	375' E of N Caylor	375	0.07	2U	64	449	50%	425	30	18	12	
Timberland	Park Vista	355' E of Park Vista	355	0.07	4D	54	29	50%	700	94	3	91	
<b>SUBTOTAL</b>			<b>215,965</b>	<b>40.90</b>							<b>63,326</b>	<b>30,878</b>	<b>2,327</b>

# **City of Fort Worth - 2017 Transportation Impact Fee Study** **Existing Roadway Facilities Inventory**

## **Service Area E**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Bailey Boswell	FM 1220	2020' E of FM 1220	2,140	0.41	4U	418	546	50%	650	527	195	332	
Bailey Boswell	35' W of Bowman Roberts	440' E of Wind River	2,215	0.42	4U	418	546	100%	650	1091	404	686	
Bailey Boswell	440' E of Wind River	Old Decatur	2,255	0.43	4D	418	546	100%	700	1196	412	784	
Boat Club	Cromwell Marine Crk	Robertson	980	0.19	5U	1344	915	50%	700	260	210	50	
Boat Club	Robertson	W J Boaz	2,915	0.55	5U	1160	1111	50%	700	773	627	146	
Boat Club	W J Boaz	Lake Country	4,595	0.87	5U	827	1028	100%	700	2437	1,614	822	
Boat Club	Lake Country	Bailey Boswell	1,325	0.25	5U	827	1028	100%	700	703	466	237	
Boat Club	Cape Royale	3686' E of Cape Royale	775	0.15	2U-CG	581	547	100%	425	62	166	-103	103
Boat Club	Bailey Boswell	1075' N of Bailey Boswell	2,195	0.42	5U	581	547	50%	700	582	234	348	
Boat Club	858' W of La Frontera	Cape Royale	2,585	0.49	2U	581	547	100%	425	416	552	-136	136
Eagle Ranch	W J Boaz	Lake Country	3,025	0.57	2U-CG	250	205	100%	425	243	261	-17	17
Heritage Trace	Old Decatur	BUS 287	5,845	1.11	2U	223	35	100%	425	941	286	655	
Lake Country	Eagle Ranch	Robertson	3,925	0.74	4U	18	7	100%	650	1933	19	1914	
Old Decatur	Bailey Boswell	W J Boaz	3,935	0.75	4D	550	672	50%	700	1043	455	588	
Old Decatur	680' N of Milo	195' S of Millstone	5,465	1.04	2U	550	672	100%	425	880	1,265	-385	385
Robertson	680' W of Lake Country	Boat Club	3,695	0.70	4U	202	316	100%	650	1820	363	1457	
Saginaw	Heritage Trace	S City Limits	400	0.08	4D	786	1100	100%	700	212	143	69	
Saginaw	260' S of Bonds Ranch	1523' S of Bonds Ranch	945	0.18	2U-H	853	1035	50%	700	125	169	-44	44
Saginaw	1523' S of Bonds Ranch	2169' S of Bonds Ranch	2,110	0.40	4D	853	1035	50%	700	559	377	182	
Saginaw	2169' S of Bonds Ranch	Heritage Trace	820	0.16	4D	853	1035	100%	700	435	293	142	
Wagley Robertson	690' N of Quicksilver	1795' S of Bent Oak	765	0.14	2U	192	273	50%	425	62	34	28	
Wagley Robertson	145' N of Mystic River	715' S of Mystic River	1,175	0.22	2U	100	100	50%	425	95	22	72	
Wj Boaz	FM 1220	Old Decatur Rd	1,950	0.37	2U	498	433	50%	425	157	172	-15	15
<b>SUBTOTAL</b>			<b>56,035</b>	<b>10.61</b>							<b>8,738</b>	<b>7,813</b>	<b>700</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area F**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
28th	Deen	North	1,265	0.24	5U	911	924	50%	700	335	220	116	
28th	North	2660' E of North	2,660	0.50	4U	800	800	50%	650	655	403	252	
28th	Sylvania	Mercantile	2,020	0.38	5U	776	697	50%	700	536	282	254	
28th	Mercantile	State Hwy 183	3,480	0.66	5U	776	697	50%	700	923	485	437	
28th	1390' W of Sylvania	Sylvania	1,390	0.26	5U	800	800	50%	700	369	211	158	
Atlee	Northeast	Northeast Loop 820	785	0.15	2U-CG	15	44	100%	425	63	9	54	
Basswood	FM 156	Robert W Downing	2,880	0.55	4D	387	441	50%	700	764	226	538	
Basswood	Robert W Downing	Bridge	975	0.18	4D	642	643	50%	700	259	119	140	
Basswood	Candler	IH-35W	1,640	0.31	4D	726	1,002	50%	700	435	268	166	
Basswood	North	Sandshell	2,140	0.41	4D	1,220	1,368	50%	700	567	524	43	
Basswood	Sandshell	Riverside	2,215	0.42	4D	1,220	1,368	50%	700	587	543	44	
Basswood	Beach	2253' E of Beach	2,255	0.43	4D	840	1,240	50%	700	598	444	154	
Basswood	978' W of Beach	Beach	980	0.19	4D	1,034	1,142	50%	700	260	202	58	
Basswood	Riverside	2913' E of Riverside	2,915	0.55	4D	1,034	1,142	50%	700	773	601	172	
Basswood	4595' W of Park Vista	Park Vista	4,595	0.87	4D	840	1,240	50%	700	1218	905	313	
Basswood	Park Vista	Parkwood Hill	1,325	0.25	4D	846	1,115	50%	700	351	246	105	
Basswood	Parkwood Hill	720' E of Parkwood Hill	775	0.15	4D	846	1,115	50%	700	205	144	62	
Basswood	Horseman	Candler	1,535	0.29	4D	726	1,002	50%	700	407	251	156	
Basswood	Bridge	Horseman	925	0.18	4U	642	643	50%	650	228	113	115	
Beach	28th	3304' N of 28th	3,305	0.63	5U	1,299	1,098	50%	700	876	750	126	
Beach	2025' S of Long	Long	2,025	0.38	5U	1,299	1,098	50%	700	537	460	77	
Beach	Long	Meacham	5,280	1.00	6D	1,363	1,024	50%	700	2100	1,194	907	
Beach	Meacham	2696' N of Meacham	2,695	0.51	6D	1,339	836	50%	700	1072	555	517	
Beach	1130' S of Northern Cross	Northern Cross	1,130	0.21	6D	1,339	836	50%	700	449	233	217	
Beach	Northern Cross	I 820 EBFR	1,555	0.29	6D	1,200	700	50%	700	618	280	339	
Beach	Fossil Creek	IH-820 WBFR	3,575	0.68	6D	855	763	100%	700	2844	1,096	1748	
Beach	Fossil Creek	1126' N of Fossil Creek	1,125	0.21	6D	1,461	996	50%	700	447	262	186	
Beach	1126' N of Fossil Creek	1639' S of Western Center	1,380	0.26	6D	1,461	996	50%	700	549	321	228	
Beach	1639' S of Western Center	Western Center	1,640	0.31	6D	1,461	996	50%	700	652	382	271	
Beach	Western Center	Basswood	4,310	0.82	6D	1,568	1,433	100%	700	3428	2,450	979	
Beach	I-820 WBFR	I-820 EBFR	320	0.06	6D	855	763	50%	700	127	49	78	
Blue Mound	Terminal	Meacham	2,615	0.50	4U	722	846	100%	650	1288	777	511	
Blue Mound	Meacham	Railhead	4,335	0.82	2U-H	617	546	100%	700	1149	955	195	
Cantrell Sansom	470' E of Mark Iv	Old Denton	1,145	0.22	2U	395	320	100%	425	184	155	29	
Cantrell Sansom	610' E of Nafex	195' E of Deerfoot	1,150	0.22	2U-CG	246	61	100%	425	93	67	26	
Cantrell Sansom	695' W of Mark Iv	Mark Iv	695	0.13	3U	246	61	100%	650	171	40	131	
Cantrell Sansom	1471' W of Mark Iv	697' W of Mark IV	775	0.15	4D	246	61	100%	700	411	45	366	
Cantrell Sansom	455' W of Nafex	610' E of Nafex	1,065	0.20	2U	246	61	100%	425	171	62	110	
Cantrell Sansom	Mark IV	470' E of Mark IV	475	0.09	4D	395	320	100%	700	252	64	188	
Deen	28th	Long	3,705	0.70	2U-CG	461	401	50%	425	149	302	-153	153
Deen	Long	Terminal	3,975	0.75	2U-CG	296	337	50%	425	160	238	-78	78
Denton	9959' S of Main	7616' S of Main	2,205	0.42	7U	1,931	1,358	50%	700	877	687	190	
Fossil Creek	Cantrell Sansom	Sandshell	810	0.15	4D	298	211	100%	700	430	78	351	
Fossil Creek	Sandshell	Riverside	2,835	0.54	4D	298	211	100%	700	1503	273	1230	
Fossil Creek	Riverside	Beach	3,335	0.63	4D	322	457	100%	700	1769	492	1277	
Gold Spike	Meacham	Railhead	2,655	0.50	2U-CG	86	101	100%	425	214	94	120	
Great Southwest	Lone Star	Mark Iv	3,005	0.57	4U	137	50	100%	650	1480	106	1373	
Great Southwest	Mark IV	Northeast	1,660	0.31	4D	93	91	100%	700	880	58	822	
Great Southwest	Northeast	North	730	0.14	4D	97	29	100%	700	387	17	370	
Lone Star	403' S of Northeast	Northeast	405	0.08	4U	0	1	100%	650	199	0	199	
Lone Star	555' N of Franklin	145' N of Meacham	790	0.15	3U	0	0	100%	650	195	0	195	

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area F**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Long	Deen	North	4,135	0.78	4D	543	568	100%	700	2193	870	1323	
Long	970' W of Beach	Beach	970	0.18	6D	600	600	100%	700	772	220	551	
Long	Texrail	Regal	4,770	0.90	4D	600	600	100%	700	2530	1,084	1445	
Long	Sylvania	Mercantile	2,150	0.41	4D	600	600	100%	700	1140	489	652	
Long	North	Sylvania	2,025	0.38	4D	600	600	100%	700	1074	460	614	
Main	Terminal	Terminal N Main	250	0.05	4D	1,000	1,000	50%	700	66	47	19	
Main	Terminal N Main	Meacham	4,035	0.76	5U	1,500	1,000	50%	700	1070	955	115	
Main	Meacham	2186' N of Meacham	2,185	0.41	5U	1,540	975	50%	700	579	520	59	
Main	1815' S of Northeast Loop 820	Northeast Loop 820	1,815	0.34	4D	1,540	975	50%	700	481	432	49	
Mark IV	Meacham	Great Southwest	2,205	0.42	4D	883	622	100%	700	1169	629	541	
Mark IV	Great Southwest	Northeast	2,315	0.44	4D	923	457	100%	700	1228	605	623	
Mark IV	Northeast	Northeast Loop 820	915	0.17	4D	923	457	100%	700	485	239	246	
Mark IV	Cantrell Sansom	Northeast Loop 820	3,070	0.58	4D	487	733	100%	700	1628	709	919	
Mark IV	Cantrell Sansom	Western Center	6,850	1.30	4D	305	392	100%	700	3633	904	2728	
Meacham	1439' W of Sylvania	Sylvania	1,440	0.27	6D	455	1,011	100%	700	1145	400	746	
Meacham	365' W of Paint Horse	Mercantile	1,770	0.34	4D	429	842	100%	700	939	426	513	
Meacham	Mark IV	1335' E of Mark IV	1,335	0.25	2U-CG	939	1,054	100%	425	107	504	-396	396
Meacham	Mercantile	Beach	2,875	0.54	4D	632	566	100%	700	1525	652	872	
Meacham	Deen	Mark IV	1,360	0.26	2U-CG	668	675	100%	425	109	346	-236	236
Meacham	635' E of FM 156	Rr Bridge	2,130	0.40	3U	614	737	100%	650	524	545	-21	21
Meacham	1114' W of Gold Spike	Gold Spike	1,115	0.21	4D	405	333	100%	700	591	156	435	
Meacham	Gold Spike	Blue Mound	3,125	0.59	4D	405	333	100%	700	1657	437	1220	
Meacham	Sylvania	365' W of Paint Horse	935	0.18	6D	429	842	100%	700	744	225	519	
Meacham	35W	1069' W of 35W	1,070	0.20	6D	939	1,054	100%	700	851	404	447	
Meacham	Lone Star	Deen	1,000	0.19	6D	668	675	100%	700	795	254	541	
Meacham	1520' W of Lonestar	Lone Star	1,520	0.29	4D	614	737	100%	700	806	389	417	
Meacham	Blue Mound	636' E of Blue Mound	635	0.12	5U	614	737	100%	700	337	162	174	
Mercantile	Meacham	Northern Cross	3,335	0.63	4U	468	357	100%	650	1642	521	1121	
Mercantile	827' S of Northern Cross	Northern Cross	825	0.16	4D	468	357	100%	700	438	129	309	
Northeast	Great Southwest	Mark Iv	3,805	0.72	4D	16	38	100%	700	2018	39	1979	
Northeast	Superior	Atlee	2,025	0.38	2U-CG	40	43	100%	425	163	32	131	
Northeast	Lone Star	Blue Mound Rd	3,720	0.70	2U-CG	40	71	100%	425	299	78	221	
Northern Cross	I-35W N	Sylvania	1,100	0.21	4D	470	220	100%	700	583	144	440	
Northern Cross	Mercantile	Beach	3,715	0.70	4D	163	208	100%	700	1970	261	1709	
Northern Cross	Sylvania	Mercantile	1,990	0.38	4D	470	220	100%	700	1055	260	795	
Railhead	Blue Mound	Gold Spike	3,295	0.62	4U	93	103	100%	650	1623	122	1500	
Railhead	Gold Spike	Northeast Loop 820	2,340	0.44	4U	112	107	100%	650	1152	97	1055	
Riverside	Northern Cross	Northeast Loop 820	1,755	0.33	4D	1,069	758	100%	700	931	607	323	
Riverside	Northeast Loop 820	Fossil Creek	2,965	0.56	4D	866	738	100%	700	1572	901	672	
Riverside	Fossil Creek	1025' N of Fossil Creek	1,025	0.19	4D	1,438	1,027	100%	700	544	479	65	
Riverside	Redwood Creek	2268' S of Redwood Creek	2,270	0.43	4D	1,438	1,027	100%	700	1204	1,060	144	
Riverside	Western Center	Basswood	4,340	0.82	4D	782	837	100%	700	2302	1,331	971	
Riverside	Stone Creek	Western Center	990	0.19	4D	971	723	100%	700	525	318	207	
Riverside	Stone Creek	180' N of Redwood Creek	985	0.19	4D	971	723	100%	700	522	316	206	
Robert W Downing	Basswood	310' N of Lou Menk	1,795	0.34	4D	417	389	100%	700	952	274	678	
Robert W Downing	Western Center	1699' N of Western Center	1,700	0.32	4D	417	389	100%	700	902	260	642	
Sylvania	28th	Long	5,625	1.07	4U	500	500	100%	650	2770	1,065	1705	
Sylvania	Long	Meacham	4,990	0.95	4D	454	438	100%	700	2646	843	1803	
Sylvania	Melody Hills	Quorum	1,700	0.32	2U	214	405	100%	425	274	199	74	
Sylvania	Meacham	Northern Cross	760	0.14	4U	214	405	100%	650	374	89	285	
Sylvania	Quorum	Meacham	1,405	0.27	4D	214	405	100%	700	745	165	580	



# **City of Fort Worth - 2017 Transportation Impact Fee Study** **Existing Roadway Facilities Inventory**

## **Service Area F**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Terminal	Main	N Main Terminal	300	0.06	4U	350	400	50%	650	74	21	53	
Terminal	Schwartz	Deen	2,490	0.47	4U	296	337	50%	650	613	149	464	
Terminal	N Main Terminal	Blue Mound	2,305	0.44	2U-H	700	800	50%	700	306	327	-22	22
Terminal	Blue Mound	1197' E of Blue Mound	1,195	0.23	4U	296	337	50%	650	294	72	223	
Terminal	Decatur	Schwartz	1,825	0.35	4U	296	337	50%	650	449	109	340	
Terminal N Main	Main	Terminal	375	0.07	1U	0	400	100%	425	30	28	2	
Western Center	I-35W N	Sandshell	1,440	0.27	6D	1,016	1,490	100%	700	1145	683	462	
Western Center	Old Denton	I-35W N	905	0.17	6D	789	1,127	100%	700	720	328	391	
Western Center	Robert W Downing	Old Denton	4,880	0.92	6D	789	1,127	100%	700	3882	1,771	2111	
Western Center	Sandshell	Riverside	1,435	0.27	6D	1,016	1,490	100%	700	1141	681	460	
Western Center	590' W of Bayberry	Spoonwood	2,240	0.42	4D	894	1,087	100%	700	1188	840	347	
Western Center	Spoonwood	Beach	1,015	0.19	4D	894	1,087	100%	700	538	381	157	
Western Center	430' E of FM 156	Robert W Downing	2,685	0.51	4D	886	851	100%	700	1424	883	541	
Western Center	Riverside	980' E of Riverside	980	0.19	4D	894	1,087	100%	700	520	368	152	
Western Center	980' E of Riverside	590' W of Bayberry	330	0.06	4D	894	1,087	100%	700	175	124	51	
Western Center	FM 156	430' E of FM 156	430	0.08	2U	886	851	100%	425	69	141	-72	72
<b>SUBTOTAL</b>			<b>244,745</b>	<b>46.35</b>							<b>48,299</b>	<b>54,849</b>	<b>979</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area G**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Angle	Old Decatur	435' S of 35th	9,895	1.87	4D	514	1,008	100%	700	5247	2,852	2395	
Angle	Marine Creek	Old Decatur	3,390	0.64	4D	278	656	100%	700	1798	600	1198	
Azle	1904' W of Marine Creek	4971' W of Marine Creek	3,065	0.58	4D	657	516	50%	700	813	340	472	
Azle	Marine Creek	1904' W of Marine Creek	1,905	0.36	4D	657	516	50%	700	505	212	294	
Boat Club	5992' S of Ten Mile Bridge	Ten Mile Bridge	5,990	1.13	5U	1,362	892	100%	700	3177	2,557	619	
Boat Club	Ten Mile Bridge	3083' N of Ten Mile Bridge	3,085	0.58	5U	1,344	908	100%	700	1636	1,316	320	
Boat Club	Cromwell Marine Crk	Robertson	3,875	0.73	5U	1,344	915	50%	700	1027	829	199	
Boat Club	Robertson	W J Boaz	2,635	0.50	5U	1,160	1,111	50%	700	699	567	132	
Boat Club	2778' S of Cromwell Marine Creek	Cromwell Marine Crk	2,780	0.53	5U	1,315	892	50%	700	737	581	156	
Cromwell Marine Creek	Boat Club	Huffines	4,610	0.87	2U	358	377	100%	425	742	642	100	
Cromwell Marine Creek	Huffines	Chesterfield	1,805	0.34	2U	478	572	100%	425	291	359	-68	68
Cromwell Marine Creek	360' E of Crystal Lake	Stonewater Bend	1,040	0.20	2U	478	572	100%	425	167	207	-39	39
Cromwell Marine Crk	Chesterfield	1132' E of Chesterfield	1,130	0.21	4D	478	572	100%	700	599	225	375	
Hodgkins	Ten Mile Bridge	Hatch	5,295	1.00	2U	172	112	100%	425	852	285	568	
Huffines	Northwest Loop 820	3605' N of Northwest Loop 820	3,605	0.68	4D	872	917	100%	700	1912	1,221	690	
Huffines	330' S of Cromwell Marine Crk	145' S of Sunrise Lake	2,670	0.51	4D	256	547	100%	700	1416	406	1010	
Huffines	Ten Mile Bridge	Sea Bass	3,335	0.63	4D	256	547	100%	700	1769	507	1261	
Huffines	330' S of Cromwell Marine Crk	Cromwell Marine Crk	330	0.06	4D	256	547	100%	700	175	50	125	
Huffines	Texas Shiner	Sea Bass	1,740	0.33	4D	256	547	100%	700	923	265	658	
Huffines	Sunrise Lake	Texas Shiner	350	0.07	4D	256	547	100%	700	186	53	132	
Huffines	2178' S of Ten Mile Bridge	Ten Mile Bridge	2,180	0.41	4U	872	917	100%	650	1073	739	335	
Longhorn	Marine Creek	Old Decatur	1,275	0.24	2U	340	55	100%	425	205	95	110	
Main	Northeast Loop 820	Longhorn	4,300	0.81	6D	1,991	1,379	100%	700	3420	2,745	676	
Marine Creek	Angle	Northwest Loop 820	5,220	0.99	4D	278	656	100%	700	2768	923	1845	
Marine Creek	435' S of Goodland	Northwest Loop 820	11,125	2.11	4D	886	420	100%	700	5900	2,752	3148	
Marine Creek	Longhorn	410' S of Goodland	2,750	0.52	2U	886	420	100%	425	443	680	-238	238
Marine Creek	Cromwell Marine Crk	Longhorn	1,295	0.25	2U	535	412	100%	425	208	232	-24	24
Old Decatur	IH-820 EBFR	890' N of Angle	3,340	0.63	2U	435	319	100%	425	538	477	61	
Old Decatur	River Rock	IH-820 EBFR	1,565	0.30	2U-CG	859	544	100%	425	126	416	-290	290
Old Decatur	Mosaic	Stone Chapel	520	0.10	4U	859	544	100%	650	256	138	118	
Old Decatur	Stone Chapel	Terrace Landing	615	0.12	4U	859	544	100%	650	303	163	139	
Old Decatur	Terrace Landing	River Rock	830	0.16	4U	859	544	100%	650	409	221	188	
Old Decatur	355' N of Mosaic	Mosaic	355	0.07	4U	859	544	100%	650	175	94	80	
Old Decatur	NW Loop 820 EBFR	NW Loop 820 EBFR	1,655	0.31	4U	435	319	100%	650	815	236	579	
Ten Mile Bridge	Westgate	Huffines	2,150	0.41	2U	4	8	100%	425	346	5	341	
Ten Mile Bridge	Hodgkins	FM 1220	2,605	0.49	2U	192	268	100%	425	419	227	192	
Ten Mile Bridge	3075' W of Hodgkins	Hodgkins	3,075	0.58	2U	92	248	100%	425	495	198	297	
Ten Mile Bridge	FM 1220	Bowman Roberts	2,930	0.55	2U	134	201	100%	425	472	186	286	
Ten Mile Bridge	Bowman Roberts	Westgate	935	0.18	3U	4	8	100%	650	230	2	228	
Wj Boaz	FM 1220	Old Decatur Rd	10,815	2.05	2U	498	433	50%	425	871	953	-83	83
<b>SUBTOTAL</b>			<b>122,065</b>	<b>23.12</b>							<b>25,556</b>	<b>18,586</b>	<b>742</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area L**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
1st	1345' E of Beach	5290' E of Beach	3,945	0.75	4D	254	319	100%	700	2,092	428	1,664	
1st	3630' W of Oakland	Oakland	3,630	0.69	4D	347	235	100%	700	1,925	400	1,525	
1st	Beach	1345' E of Beach	1,345	0.25	4U	254	319	100%	650	662	146	516	
Beach	1st	East	5,825	1.10	4U	1,142	1,263	100%	650	2,868	2,653	215	
Beach	1st	State Hwy 121	3,595	0.68	5U	1,220	1,351	100%	700	1,906	1,751	156	
Beach	State Hwy 121	2337' N of State Hwy 121	2,405	0.46	5U	1,000	1,000	100%	700	1,275	911	364	
Bridge	Oakland	Woodhaven	6,865	1.30	4U	249	359	100%	650	3,380	791	2,590	
Bridge	Woodhaven	Bridgewood	7,415	1.40	5U	314	331	50%	700	1,966	453	1,513	
Bridge	Bridgewood	IH 820	1,690	0.32	6D	655	681	100%	700	1,344	428	917	
Bridgewood	Bridge	East	1,980	0.38	5U	498	506	100%	700	1,050	377	674	
Bridgewood	Randol Mill	Bridge	5,110	0.97	4U	298	578	100%	650	2,516	848	1,668	
Handley Ederville	Randol Mill	3029' N of Randol Mill	3,030	0.57	4U	756	489	100%	650	1,492	714	778	
Handley Ederville	3517' S of Midway	Midway	3,515	0.67	5U	756	489	100%	700	1,864	829	1,035	
Oakland	1st	Bridge	3,240	0.61	4U	284	302	100%	650	1,595	360	1,236	
Oakland	Bridge	IH-30	285	0.05	3U	284	302	100%	650	70	32	39	
Randol Mill	4686' W of Woodhaven	630' W of Woodhaven	4,055	0.77	2U	260	354	100%	425	653	472	181	
Randol Mill	Woodhaven	Handley Ederville	8,690	1.65	4D	1,387	580	100%	700	4,608	3,237	1,371	
Randol Mill	Handley Ederville	IH 820	1,310	0.25	4D	669	226	100%	700	695	222	473	
Randol Mill	Oakland	855' E of Oakland	855	0.16	4D	260	354	100%	700	453	99	354	
Randol Mill	630' W of Woodhaven	Woodhaven	630	0.12	4D	260	354	100%	700	334	73	261	
Trinity	Handley Ederville	970' W of IH 820	1,850	0.35	5U	800	400	100%	700	981	420	561	
Trinity	970' W of IH 820	IH 820	970	0.18	4D	400	400	100%	700	514	147	367	
Woodhaven	Randol Mill	Brentwood Stair	3,925	0.74	3U	289	257	100%	650	966	406	561	
<b>SUBTOTAL</b>			<b>76,160</b>	<b>14.42</b>							<b>16,196</b>	<b>19,018</b>	<b>0</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area M**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Bell Spur	Trinity	Hurst	2,495	0.47	4U	310	374	100%	650	1,229	323	905	
Cooks	IH 30	John T White	2,070	0.39	6D	320	337	100%	700	1,647	258	1,389	
Cooks	395' N of John T White	1840' N of John T White	1,450	0.27	2U-CG	276	210	100%	425	117	133	-17	17
Cooks	John T White	395' N of John T White	390	0.07	4D	276	210	100%	700	207	36	171	
Eastchase	East	Meadowbrook	1,065	0.20	6D	700	1,700	100%	700	847	484	363	
Eastchase	John T White	I 30	2,080	0.39	6D	532	614	100%	700	1,655	451	1,203	
Greenbelt Rd	Trinity	8885' S of Trinity	8,885	1.68	2U	586	1,080	100%	425	1,430	2,803	-1,373	1373
John T White	Sandy	Cooks	3,885	0.74	4D	515	520	100%	700	2,060	762	1,299	
John T White	Cooks	Eastchase	4,950	0.94	4D	304	436	100%	700	2,625	694	1,931	
John T White	Eastchase	Randol Mill	720	0.14	4D	349	400	100%	700	382	102	280	
John T White	Anderson	Sandy	4,625	0.88	4D	607	592	100%	700	2,453	1,050	1,402	
John T White	IH 820	Anderson	570	0.11	4D	607	592	100%	700	302	129	173	
Norwood	SH 10	Railroad	1,250	0.24	2U	183	206	100%	425	201	92	109	
Norwood	Railroad	Trinity	1,215	0.23	3U	183	206	100%	650	299	90	210	
Pipeline	SH 10	Raider	1,470	0.28	2U	102	103	100%	425	237	57	180	
Precinct Line	1955' S of Trinity	Randol Mill	7,200	1.36	2U	476	770	100%	425	1,159	1,699	-540	540
Precinct Line	1825' N of Trinity	Trinity	1,825	0.35	4D	471	838	100%	700	968	452	515	
Precinct Line	Trinity	1955' S of Trinity	1,955	0.37	4D	476	770	100%	700	1,037	461	575	
Randol Mill	1000' S of John T White	2390' S of John T White	1,385	0.26	4U	518	358	100%	650	682	230	452	
Randol Mill	Stoneview	Sandy	5,035	0.95	2U	278	182	100%	425	811	439	372	
Randol Mill	Sandy	Cooks	2,885	0.55	2U	278	182	100%	425	464	251	213	
Randol Mill	880' E of Lowery	Racquet Club	1,320	0.25	2U-CG	412	486	100%	425	106	225	-118	118
Randol Mill	1005' N of John T White	John T White	1,005	0.19	6D	412	486	100%	700	799	171	629	
Randol Mill	IH-30 EB	120' Nw of Mill Valley Cir.	430	0.08	2U	518	358	100%	425	69	71	-2	2
Randol Mill	570' N of I 30	I 30	565	0.11	2U	518	358	100%	425	91	94	-3	3
Randol Mill	John T White	1000' S of John T White	1,000	0.19	2U	349	400	100%	425	161	142	19	
Randol Mill	Lowery	880' E of Lowery	880	0.17	2U-R	412	486	100%	150	50	150	-100	100
Sandy	IH 30	John T. White	2,350	0.45	2U	203	216	100%	425	378	186	192	
Sandy	370' S of Randol Mill	John T White	5,185	0.98	2U	189	132	100%	425	835	315	519	
Trinity	IH 820	587' E of IH 820	585	0.11	4D	400	400	100%	700	310	89	222	
Trinity	545' E of Precinct Line	Norwood	3,975	0.75	4U	393	1,026	100%	650	1,957	1,068	889	
Trinity	1565' W of Bell Spur	Bell Spur	1,560	0.30	4U	1,044	386	100%	650	768	423	346	
Trinity	Bell Spur	2950' E of Bell Spur	2,950	0.56	4U	641	1,244	100%	650	1,453	1,053	399	
Trinity	IH 820 NBFR	1550' W of Precinct Line	7,135	1.35	4U	404	1,040	100%	650	3,513	1,951	1,562	
Trinity	1111' W of Greenbelt Rd	Greenbelt Rd	1,110	0.21	6D	641	1,244	100%	700	883	396	487	
Trinity	1550' W of Precinct Line	Precinct Line	1,550	0.29	4D	404	1,040	100%	700	822	424	398	
Trinity	2582' W of Raider	Raider	2,580	0.49	6D	489	1,544	50%	700	1,026	497	529	
Trinity	Norwood	1500' E of Norwood	1,500	0.28	4U	1,044	386	100%	650	739	406	332	
Trinity	1500' E of Norwood	1565' W of Bell Spur	855	0.16	4D	1,044	386	100%	700	453	232	222	
Trinity	Greenbelt Rd	930' E of Greenbelt Rd	930	0.18	6D	489	1,544	100%	700	740	358	382	
Trinity	Precinct Line	545' E of Precinct Line	545	0.10	4D	409	972	100%	700	289	143	146	
<b>SUBTOTAL</b>			<b>95,415</b>	<b>18.07</b>							<b>19,391</b>	<b>16,863</b>	<b>2,153</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area N**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
American	Trinity	Pipeline	455	0.09	4U	192	574	100%	650	224	66	158	
American	Pipeline	FAA	3,290	0.62	4U	194	574	100%	650	1,620	479	1,142	
American	FAA	1672' N of FAA	1,670	0.32	4D	422	704	100%	700	886	356	529	
Amon Carter	Trinity	Sovereign	2,500	0.47	6D	1,492	388	100%	700	1,989	890	1,098	
Amon Carter	Sovereign	FAA	1,845	0.35	6D	1,774	498	100%	700	1,468	794	674	
Amon Carter	FAA	State Hwy 183	1,275	0.24	4D	1,824	498	100%	700	676	561	115	
Amon Carter	State Hwy 183	469' N of State Hwy 183	470	0.09	4D	1,824	498	100%	700	249	207	43	
Buckingham	Frye	Trinity	865	0.16	2U-CG	37	209	100%	425	70	40	29	
Centreport	Trinity	Sovereign	4,870	0.92	4D	234	336	100%	700	2,583	526	2,057	
Centreport	Sovereign	FAA	3,370	0.64	4D	0	111	100%	700	1,787	71	1,716	
FAA	State Hwy 360	American	2,890	0.55	2U-CG	202	895	100%	425	233	600	-368	368
FAA	State Hwy 360	Centreport	1,240	0.23	4D	133	368	100%	700	658	118	540	
FAA	Amon Carter	5587' E of Amon Carter	5,585	1.06	4D	207	673	100%	700	2,962	931	2,031	
FAA	475' E of Centreport	625' W of Amon Carter	1,195	0.23	4D	118	284	100%	700	634	91	543	
FAA	American	SH 183 NB Enter SH 10 EB	2,320	0.44	4U	75	329	50%	650	571	89	482	
FAA	625' W of Amon Carter	Amon Carter	620	0.12	4D	118	284	100%	700	329	47	282	
FAA	Centreport	475' E of Centreport	475	0.09	4D	118	284	100%	700	252	36	216	
Frye	Buckingham	Trinity	1,760	0.33	2U-CG	209	37	100%	425	142	82	60	
Frye	Trinity	1887' E of Trinity	1,885	0.36	4D	81	121	100%	700	1,000	72	928	
Frye	Buckingham	Trinity	655	0.12	4D	209	37	100%	700	347	31	317	
Highway 157	Hwy 157	Trinity	3,020	0.57	6D	1,226	1,918	100%	700	2,402	1,798	604	
Highway 157	Trinity	Pipeline	2,085	0.39	6D	1,122	1,416	100%	700	1,659	1,002	656	
House Anderson	Pipeline	Trinity	1,440	0.27	2U	244	387	100%	425	232	172	60	
Pipeline	Raider	House Anderson	3,630	0.69	2U	102	103	100%	425	584	141	443	
Pipeline	House Anderson	1755' E of House Anderson	1,755	0.33	2U	79	157	100%	425	283	78	204	
Pipeline	1665' W of FM 157	FM 157	1,665	0.32	2U	104	318	100%	425	268	133	135	
Pipeline	FM 157	S Main	5,330	1.01	2U	104	318	100%	425	858	426	432	
Pipeline	S Main	American	3,570	0.68	2U	122	380	100%	425	575	339	235	
S Main	Pipeline	Trinity	1,000	0.19	2U	216	297	100%	425	161	97	64	
Sovereign	Centreport	Amon Carter	2,120	0.40	4D	311	244	100%	700	1,124	223	901	
Trinity	Raider	House Anderson	4,080	0.77	6D	489	1,544	100%	700	3,245	1,571	1,675	
Trinity	House Anderson	Highway 157	7,640	1.45	6D	395	1,084	100%	700	6,077	2,140	3,937	
Trinity	Highway 157	Euless South Main	5,640	1.07	6U	497	1,587	100%	700	4,486	2,226	2,260	
Trinity	595' N of Trinity Railway Express	E City Limits	3,605	0.68	4D	952	683	100%	700	1,912	1,116	795	
Trinity	Euless South Main	American	3,855	0.73	6D	545	2,121	100%	700	3,066	1,946	1,120	
Trinity	Buckingham	Frye	2,310	0.44	6D	801	744	100%	700	1,838	676	1,162	
Trinity	Amon Carter	Buckingham	775	0.15	6D	801	744	100%	700	616	227	390	
Trinity	Centreport	Amon Carter	2,090	0.40	6D	929	2,672	100%	700	1,663	1,425	237	
Trinity	State Hwy 360	Centreport	1,635	0.31	6D	1,357	3,432	100%	700	1,301	1,483	-182	182
Trinity	American	State Hwy 360	5,720	1.08	6D	633	1,847	100%	700	4,550	2,687	1,863	
Trinity	Frye	595' N of Trinity Railway Express	1,320	0.25	6D	952	683	100%	700	1,050	409	641	
<b>SUBTOTAL</b>			<b>103,520</b>	<b>19.61</b>							<b>26,403</b>	<b>30,224</b>	<b>550</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area O**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Brentwood Stair	IH 820	Handley	620	0.12	4D	636	646	100%	700	329	151	178	
Brentwood Stair	Handley	Sandy	4,980	0.94	4U	504	398	100%	650	2,452	851	1,602	
Cooks	Brentwood Stair	140' N of Bermejo	4,105	0.78	2U	354	213	100%	425	661	441	220	
Cooks	Ederville	East I 30	670	0.13	6D	534	783	100%	700	533	167	366	
Cooks	1605' S of Ederville	Ederville	1,605	0.30	6D	354	213	100%	700	1,277	172	1,104	
Cooks	140' N of Bermejo	Maegan	1,215	0.23	2U-CG	354	213	100%	425	98	130	-33	33
Division	State Hwy 180	Lancaster	445	0.08	4U	800	900	100%	650	219	143	76	
Dottie Lynn	Lancaster	Cooks	2,110	0.40	6D	972	1,769	100%	700	1,678	1,095	583	
Dottie Lynn	Cooks	690' E of Cooks	705	0.13	6D	972	1,769	100%	700	561	366	195	
Dottie Lynn	Meadowbrook	2914' S of Meadowbrook	2,915	0.55	6D	972	1,769	100%	700	2,319	1,513	805	
Eastchase	Meadowbrook	Brentwood Stair	995	0.19	6D	972	1,769	100%	700	791	517	275	
Eastchase	Ederville	Brentwood Stair	1,140	0.22	6D	972	1,769	100%	700	907	592	315	
Eastchase	Ederville	540' N of Ederville	540	0.10	6D	1,069	1,744	100%	700	430	288	142	
Eastchase	Meadowbrook	Meadowbrook	620	0.12	6D	700	1,400	100%	700	493	247	247	
Eastchase	East	Meadowbrook	1,065	0.20	6D	700	1,700	100%	700	847	484	363	
Ederville	Cooks	Eastchase	4,450	0.84	4U	324	379	100%	650	2,191	592	1,599	
Ederville	Sandy	Cooks	4,760	0.90	4U	273	315	100%	650	2,344	530	1,814	
Ederville	Handley	Sandy	4,390	0.83	4U	607	592	100%	650	2,162	997	1,165	
Green Oaks	Lancaster	307' S of Lancaster	305	0.06	6D	972	1,769	100%	700	243	158	84	
Handley	2651' N of Lancaster	Lancaster	2,650	0.50	2U-CG	174	132	100%	425	213	154	60	
Handley	Meadowbrook	2360' S of Meadowbrook	1,970	0.37	2U-CG	174	132	100%	425	159	114	44	
Handley	Brentwood Stair	Meadowbrook	3,165	0.60	4U	288	340	100%	650	1,559	376	1,182	
Handley	Brentwood Stair	Ederville	1,875	0.36	4U	240	313	100%	650	923	196	727	
Handley	Meadowbrook	2360' S of Meadowbrook	390	0.07	4U	174	132	100%	650	192	23	169	
Lancaster	Sandy	Dottie Lynn	3,520	0.67	4U	763	927	100%	650	1,733	1,127	607	
Lancaster	5559' W of Sandy	Sandy	5,560	1.05	5U	792	937	100%	700	2,948	1,821	1,128	
Lancaster	IH 820	1543' E of IH 820	1,545	0.29	4U	1,135	955	100%	650	761	612	149	
Lancaster	755' W of Handley	Handley	755	0.14	4U	1,135	955	100%	650	372	299	73	
Lancaster	Handley	595' E of Handley	590	0.11	4U	792	937	100%	650	291	193	97	
Lancaster	Sandy	1985 E of Sandy	1,985	0.38	5U	763	927	100%	700	1,053	635	417	
Meadowbrook	IH 820	Handley	1,785	0.34	5U	617	522	100%	700	947	385	562	
Meadowbrook	Eastchase	784' E of Eastchase	885	0.17	2U-CG	300	0	100%	425	71	50	21	
Meadowbrook	Eastchase	316' E of Eastchase	405	0.08	4D	300	300	100%	700	215	46	169	
Meadowbrook	Randol Mill	340' E of Randoll Mill	340	0.06	6D	957	1,893	50%	700	135	92	43	
Meadowbrook	3185' W of Randol Mill	Randol Mill	3,090	0.59	6D	1,680	899	100%	700	2,458	1,509	949	
Randol Mill	120' Nw of Mill Valley Cir.	Meadowbrook	675	0.13	4U	518	358	100%	650	332	112	220	
Sandy	Brentwood Stair	Lancaster	9,450	1.79	2U	189	172	100%	425	1,521	646	875	
Sandy	Ederville	Brentwood Stair	1,030	0.20	2U-CG	119	218	100%	425	83	66	17	
Sandy	IH-30 EB	Ederville	870	0.16	2U-CG	183	175	100%	425	70	59	11	
<b>SUBTOTAL</b>			<b>80,170</b>	<b>15.18</b>							<b>17,949</b>	<b>18,621</b>	<b>33</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area PI**

11/8/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Belknap	Commerce	Calhoun	269	0.05	4U	0	1,869	100%	650	132	95	37	
Henderson	Peach	1933' N of Belknap	1,408	0.27	5U	1,469	1,125	100%	700	747	692	55	
Henderson	1012' W of White Settlement	White Settlement	1,012	0.19	5U	1,469	1,125	100%	700	537	497	39	
Henderson	1215' W of Railroad	Railroad	1,217	0.23	4D	1,469	1,125	50%	700	323	299	24	
Henderson	Railroad	White Settlement	1,028	0.19	4U	1,469	1,125	100%	650	506	505	1	
Henderson	Belknap	Peach	525	0.10	6U	1,469	1,469	50%	700	209	146	63	
Main	Houston	221' N of Houston	221	0.04	2U-CG	0	836	100%	425	18	35	-17	17
Main	Commerce	285' W of Commerce	285	0.05	2U-CG	1,347	0	100%	425	23	73	-50	50
Main	Railroad	Commerce	4,955	0.94	5U	1,347	836	100%	700	2,628	2,049	579	
Main	1804' N of Commerce	Commerce	1,804	0.34	4U	1,347	836	100%	650	888	746	142	
White Settlement	Commercial	Henderson	481	0.09	4D	600	600	100%	700	255	109	146	
White Settlement	Vacek	Commercial	2,183	0.41	4D	600	600	50%	700	579	248	331	
<b>SUBTOTAL</b>			<b>15,388</b>	<b>2.91</b>							<b>5,493</b>	<b>1,350</b>	<b>67</b>



**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area S**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Academy	Westpoint	3005' N of Westpoint	3,005	0.57	4D	406	258	100%	700	1,594	378	1,216	
Academy	White Settlement	Legacy	2,135	0.40	4D	38	1,102	100%	700	1,132	461	671	
Academy	125' N of Sparrow Hawk	Legacy	1,170	0.22	4D	132	82	100%	700	620	47	573	
Academy	305' S of Westpoint	Westpoint	305	0.06	4D	5	5	100%	700	162	1	161	
Academy	1340' S of White Settlement	White Settlement	1,335	0.25	5D	751	976	100%	700	885	437	448	
Alemeda	IH-30 WBFR	IH-30	635	0.12	2U	206	120	100%	425	102	39	63	
Amber Ridge	Chapel Creek	Wind Star	1,390	0.26	2U-CG	41	54	100%	425	112	25	87	
American Flyer	110' N of Fandor	Westpoint	1,685	0.32	4U	38	52	100%	650	830	29	801	
Chapel Creek	Chapin	IH 30	905	0.17	4U	969	489	100%	650	446	250	196	
Chapel Creek	2610' N of Chapin	Chapin	2,610	0.49	5U	777	402	100%	700	1,384	583	801	
Chapel Creek	Westpoint	Amber Ridge	3,285	0.62	4D	501	331	100%	700	1,742	518	1,224	
Chapel Creek	White Settlement	Westpoint	4,535	0.86	4D	406	258	100%	700	2,405	570	1,835	
Chapel Creek	Amber Ridge	825' S of Amber Ridge	820	0.16	4D	692	434	100%	700	435	175	260	
Chapin	3155' W of Whitetail Chase	1370' W of Whitetail Chase	1,785	0.34	2U	120	225	100%	425	287	117	171	
Chapin	130' W of Whitetail Chase	Chapel Creek	2,985	0.57	4U	120	225	100%	650	1,470	195	1,275	
Clifford	West Loop 820 North	1935' W of West Loop 820 North	1,935	0.37	5U	810	1,312	100%	700	1,026	778	248	
Clifford	610' E of White Settlement	White Settlement	610	0.12	4D	810	1,312	100%	700	323	245	78	
Legacy	White Settlement	Academy	2,215	0.42	3U	125	248	100%	650	545	156	389	
Old Weatherford	3510' W of Hickory Bend	100' E of Hickory Bend	3,610	0.68	2U	102	90	100%	425	581	131	450	
Old Weatherford	100' E of Hickory Bend	Chapel Creek	2,570	0.49	2U	102	90	100%	425	414	93	320	
Silver Creek	1465' E of Academy (Future)	IH 820	1,820	0.34	4D	48	46	100%	700	965	32	933	
Silver Creek	Silver Creek (Future)	595' S of Verna	4,255	0.81	2U	48	46	100%	425	685	76	609	
Silver Ridge	White Settlement	135' S of Broken Arrow	1,435	0.27	4U	51	96	100%	650	707	40	667	
Westpoint	Academy	IH 820 SBFR	3,625	0.69	2U	154	268	100%	425	584	290	294	
Westpoint	Academy	Chapel Creek	4,770	0.90	4D	257	268	100%	700	2,530	474	2,055	
Westpoint	American Flyer	Chapel Creek	1,935	0.37	4D	54	119	100%	700	1,026	63	963	
Westpoint	Loop 820 SBFR	240' W of Loop 820 SBFR	240	0.05	4U	154	268	100%	650	118	19	99	
Westpoint	Basset Locke	American Flyer	1,590	0.30	2U-CG	36	78	100%	425	128	34	94	
White Settlement	Chapel Creek	Academy	2,660	0.50	4D	104	103	100%	700	1,411	104	1,306	
White Settlement	West Loop 820 South	Clifford	2,035	0.39	5U	5	5	100%	700	1,079	4	1,075	
White Settlement	Academy	Legacy	2,050	0.39	4D	397	237	100%	700	1,087	246	841	
White Settlement	Legacy	White Settlement	610	0.12	4D	714	1,174	100%	700	323	218	105	
White Settlement	890' E of Silver Ridge	Chapel Creek	3,940	0.75	2U	274	561	100%	425	634	623	11	
White Settlement	600' E of Haywire Ranch	Silver Ridge	6,025	1.14	2U	225	468	50%	425	485	395	90	
White Settlement	Silver Ridge	890' E of Silver Ridge	890	0.17	2U	274	561	50%	425	72	70	1	
<b>SUBTOTAL</b>			<b>77,405</b>	<b>14.66</b>							<b>7,918</b>	<b>20,411</b>	<b>0</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area T**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Alemeda	545' S of Camp Bowie West	Chapin	1,785	0.34	2U	17	28	100%	425	287	15	272	
Alemeda	Camp Bowie West	2100' N of Camp Bowie West	2,100	0.40	4U	142	87	100%	650	1,034	91	943	
Alemeda	Normandale	Loop 820 Service Road W	1,345	0.25	5U	206	120	100%	700	713	83	630	
Alemeda	IH 30 EB	IH 30 EBFR	380	0.07	2U	206	120	100%	425	61	23	38	
Alemeda	1245' S of Normandale	Normandale	1,245	0.24	5U	142	87	100%	700	660	54	606	
Alta Mere Dr	Camp Bowie West	Camp Bowie	2,950	0.56	6D	1,500	1,500	50%	700	1,173	838	335	
Benbrook	Williams Rd	3288' S of Williams Rd	3,290	0.62	4U	392	655	50%	650	810	326	484	
Benbrook	Weatherford Traffic Circle	2850 Ft S of Weatherford Traffic Circle	2,850	0.54	5U	392	655	100%	700	1,511	565	946	
Benbrook	Southwest	1480' S of Southwest	3,040	0.58	4D	392	655	100%	700	1,612	603	1,009	
Benbrook	Williams Rd	2085' N of Williams Rd	2,080	0.39	5U	392	655	50%	700	552	206	345	
Calmont	Cherry	Las Vegas	5,235	0.99	4U	244	346	100%	650	2,578	585	1,993	
Camp Bowie West	2440' E of IH 30 EB Camp Bowie	Chapel Creek	2,515	0.48	4D	172	448	100%	700	1,334	295	1,038	
Camp Bowie West	Alta Mere Dr	Cherry	3,135	0.59	6D	835	1,146	50%	700	1,247	588	659	
Camp Bowie West	2385' E of Las Vegas	Las Vegas	2,380	0.45	6D	835	1,146	100%	700	1,893	893	1,000	
Camp Bowie West	Chapel Creek	Longvue	2,610	0.49	4D	306	606	100%	700	1,384	451	933	
Camp Bowie West	Las Vegas	NB Loop 820 Frontage Road	4,230	0.80	6D	671	959	100%	700	3,365	1,306	2,059	
Camp Bowie West	Alemeda	West Loop 820 South	905	0.17	4D	345	995	100%	700	480	230	250	
Camp Bowie West	Longvue	Alemeda	3,640	0.69	4D	345	995	100%	700	1,930	924	1,007	
Camp Bowie West	West Loop 820 South	393' E of West Loop 820 South	395	0.07	4D	671	959	100%	700	209	122	88	
Camp Bowie West	Cherry	2105' W of Cherry	2,105	0.40	6D	835	1,146	50%	700	837	395	442	
Camp Bowie West	IH 30 EB Camp Bowie	2440' E of IH 30 EB Camp Bowie	2,440	0.46	4D	172	448	50%	700	647	143	504	
Chapel Creek	West	Camp Bowie West	2,560	0.48	5U	185	94	100%	700	1,358	135	1,222	
Chapin	Longvue	965' W of Alemda	2,665	0.50	2U	26	40	100%	425	429	33	396	
Chapin	Alemeda	IH 820	1,345	0.25	2U	41	46	100%	425	217	22	194	
Cherry	1000' N of Camp Bowie West	805' S of Calmont	2,160	0.41	4U	477	522	50%	650	532	204	327	
Cherry	IH 30	Calmont	1,600	0.30	4U	557	661	50%	650	394	185	209	
Cherry	1000' N of Camp Bowie West	Camp Bowie West	1,000	0.19	5U	477	522	50%	700	265	95	171	
Cherry	Calmont	805' S of Calmont	805	0.15	5U	477	522	50%	700	213	76	137	
Dale	West	Normandale	1,100	0.21	4U	143	194	100%	650	542	70	471	
IH 30 EB Camp Bowie	IH 30	Camp Bowie West	1,100	0.21	4U	172	448	50%	650	271	65	206	
Las Vegas	1712' N of Camp Bowie West	Camp Bowie West	1,710	0.32	4D	476	459	100%	700	907	303	604	
Las Vegas	Calmont	2537' S of Calmont	2,535	0.48	5U	476	459	50%	700	672	224	448	
Las Vegas	IH 30	Calmont	945	0.18	5U	476	459	100%	700	501	167	334	
Longvue	Chapin	1690' S of Chapin	1,690	0.32	2U	158	467	100%	425	272	200	72	
Longvue	Camp Bowie West	Chapin	2,570	0.49	2U	158	467	100%	425	414	304	110	
Longvue	IH-30	Camp Bowie West	3,115	0.59	2U	105	58	100%	425	501	96	405	
Normandale	West Loop 820 South	Alemeda	1,240	0.23	4U	112	145	100%	650	611	60	550	
Normandale	Dale	West Loop 820 South	1,880	0.36	4U	199	271	100%	650	926	167	758	
Southwest	Benbrook	Vickery	14,130	2.68	6D	1,770	1,770	50%	700	5,620	4,737	883	
Vickery	Southwest	1625' W of Southwest	1,625	0.31	4U	403	943	50%	650	400	207	193	
Vickery	1625' W of Southwest	2190' W of Southwest	565	0.11	4U	403	943	100%	650	278	144	134	
Weatherford Traffic	Weatherford Traff Cir Hwy 377 Sb	Southwest	2,560	0.48	6D	1,600	1,600	50%	700	1,018	776	242	
<b>SUBTOTAL</b>			<b>99,555</b>	<b>18.86</b>							<b>17,008</b>	<b>23,650</b>	<b>0</b>

# **City of Fort Worth - 2017 Transportation Impact Fee Study** **Existing Roadway Facilities Inventory**

**Service Area U**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Aledo Rd	WR #3	515' E of WR #3	515	0.10	2U	50	50	50%	425	41	5	37	
Old Weatherford	3500' W of Walsh Ranch	Walsh Ranch	3,500	0.66	2U	9	47	100%	425	563	37	526	
Old Weatherford	Walsh Ranch	1355' E of Walsh Ranch	1,355	0.26	2U	9	47	100%	425	218	14	204	
Quail Meadow	240' W of Walsh Ranch	610' E of Walsh Ranch	1,195	0.23	4D	0	0	100%	700	634	0	634	
Walsh Ranch	Quail Meadow	IH 30 EBFR	2,475	0.47	6D	29	80	100%	700	1,969	51	1,918	
Walsh Ranch	Walsh Creek	Quail Meadow	5,270	1.00	4D	29	80	100%	700	2,795	109	2,686	
Walsh Ranch	Walsh	Walsh Creek	3,760	0.71	2U	29	80	100%	425	605	78	528	
Walsh Ranch	Marys Ridge	Walsh	2,400	0.45	2U	29	80	100%	425	386	50	337	
<b>SUBTOTAL</b>			<b>20,470</b>	<b>3.88</b>							<b>343</b>	<b>6,868</b>	<b>0</b>

City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory

Service Area V

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Dean Ranch	2445' W of FM 2871	FM 2871	2,445	0.46	2U-CG	0	0	100%	425	197	0	197	
RM 2871	798' S of Aledo Rd	1620' S of Aledo Rd	820	0.16	2U	390	390	100%	425	132	121	11	
RM 2871	Aledo Rd	798' S of Aledo Rd	795	0.15	2U	390	390	100%	425	128	117	11	
<b>SUBTOTAL</b>			<b>4,060</b>	<b>1</b>							<b>239</b>	<b>218</b>	<b>0</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area W**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Altamesa	Chisholm Trail SBFR	Granbury	2,265	0.43	6D	877	643	50%	700	901	326	575	
Altamesa	Harris	Chisholm Trail SBFR	825	0.16	6D	877	643	50%	700	328	119	209	
Altamesa	Hulen	Granbury	4,735	0.90	6D	348	296	50%	700	1,883	289	1,594	
Altamesa	4350' E of McCart	McCart	4,350	0.82	6D	719	815	50%	700	1,730	632	1,098	
Altamesa	McCart	1585' W of McCart	1,585	0.30	6D	1,038	867	50%	700	630	286	344	
Altamesa	7707' E of Hulen	Hulen	7,705	1.46	6D	545	533	50%	700	3,064	787	2,278	
Altamesa Blvd	Bryant Irvin	Harris	2,735	0.52	6D	658	547	50%	700	1,088	312	776	
Arborlawn	Hulen	International	1,855	0.35	4D	150	92	100%	700	984	85	899	
Arborlawn	International	Bellaire	2,765	0.52	4D	245	236	100%	700	1,466	252	1,214	
Arborlawn	Chisholm Trail	Bryant Irvin	1,820	0.34	4D	842	1,331	100%	700	965	749	216	
Arborlawn	Bellaire	Chisholm Trail	1,160	0.22	4D	494	466	100%	700	615	211	404	
Bellaire	Berry	Hulen	4,640	0.88	4D	732	766	50%	700	1,230	658	572	
Bellaire	900' W of Hulen	755' E of Arborlawn	3,865	0.73	4D	303	322	50%	700	1,025	229	796	
Bellaire	775' E of Arborlawn	Arborlawn	775	0.15	4D	303	322	50%	700	205	46	160	
Bellaire	Hulen	900' W of Hulen	895	0.17	4D	303	322	100%	700	475	106	369	
Berry	University	Bellaire	5,570	1.05	4D	732	766	50%	700	1,477	790	687	
Bluebonnet	University	University	650	0.12	4D	0	822	100%	700	345	101	244	
Bryant Irvin	Dutch Branch	Altamesa	1,720	0.33	6D	456	610	100%	700	1,368	347	1,021	
Bryant Irvin	Oakmont	Dutch Branch	5,145	0.97	6D	511	588	100%	700	4,093	1,071	3,022	
Bryant Irvin	Overton Ridge	Oakmont	5,940	1.13	6D	1,507	1,566	100%	700	4,725	3,457	1,268	
Bryant Irvin	IH 20	Overton Ridge	2,505	0.47	6D	1,616	1,434	100%	700	1,993	1,447	546	
Bryant Irvin	TX-183 E	IH 20	2,090	0.40	6U	1,200	1,200	100%	700	1,663	950	713	
Bryant Irvin	2420' N of TX-183 E	TX-183 E	2,415	0.46	6D	439	446	50%	700	961	202	758	
Bryant Irvin	Riverpark	Arborlawn	3,385	0.64	4D	906	1,375	50%	700	898	731	166	
Bryant Irvin	Vickery	Riverpark	980	0.19	4D	959	1,485	50%	700	260	227	33	
Bryant Irvin	Arborlawn	970' S of Arborlawn	965	0.18	4D	439	446	50%	700	256	81	175	
Crowley	IH 20	1604' S of IH 20	1,770	0.34	7U	1,021	1,645	100%	700	1,408	894	514	
Dutch Branch	Chisholm Trail	Harris	880	0.17	4U	27	59	100%	650	433	14	419	
Dutch Branch	Oakmont	Chisholm Trail	910	0.17	4U	27	59	100%	650	448	15	433	
Dutch Branch	Harris	Bryant Irvin	3,750	0.71	4U	78	104	100%	650	1,847	129	1,717	
Granbury	Dutch Branch	Altamesa	2,010	0.38	6D	800	800	100%	700	1,599	609	990	
Granbury	Hulen	Dan Danciger	3,210	0.61	4D	800	800	100%	700	1,702	973	730	
Granbury	5430' Ne of Hulen	Hulen	5,425	1.03	4U	1,300	1,300	100%	650	2,671	2,671	0	
Granbury	4400' Ne of IH 20	IH 20	4,400	0.83	4U	156	415	50%	650	1,083	238	845	
Granbury	Seminary	University	4,510	0.85	4U	491	981	50%	650	1,110	629	482	
Granbury	IH 20	2685' SW of IH 20	2,685	0.51	6U	1,300	1,300	100%	700	2,136	1,322	814	
Granbury	Seminary	IH 20	670	0.13	2U-CG	156	412	100%	425	54	72	-18	18
Granbury	Dan Danciger	Dutch Branch	1,610	0.30	4D	800	800	100%	700	854	488	366	
Harris	Dutch Branch	Altamesa	2,575	0.49	4U	188	363	100%	650	1,268	269	999	
Harris	Oakmont	2395' S of Oakmont	2,395	0.45	4U	692	362	100%	650	1,179	478	701	
Harris	1050' N of Dutch Branch	Dutch Branch	1,050	0.20	5U	692	362	100%	700	557	210	347	
Hulen	3390' N of Altamesa	Altamesa	3,385	0.64	5U	788	1,157	100%	700	1,795	1,247	548	
Hulen	Oakmont	Granbury	1,605	0.30	6D	1,061	1,599	100%	700	1,277	809	468	
Hulen	South	Oakmont	3,145	0.60	6D	1,833	1,691	100%	700	2,502	2,099	403	
Hulen	Overton Ridge	South	1,630	0.31	6D	1,243	1,698	100%	700	1,297	908	389	
Hulen	IH 20	Overton Ridge	2,630	0.50	6D	1,290	1,795	100%	700	2,092	1,537	555	
Hulen	Overton Plaza	IH 20	1,605	0.30	6D	1,433	2,805	100%	700	1,277	1,288	-12	12
Hulen	Arborlawn	Overton Plaza	2,500	0.47	6D	1,051	1,606	100%	700	1,989	1,258	731	
Hulen	Bellaire	Arborlawn	4,925	0.93	6D	1,076	1,586	100%	700	3,918	2,483	1,435	
Hulen	Granbury	1400' S of Granbury	1,400	0.27	4U	788	157	100%	650	689	251	439	
International	Overton Plaza	TX-183 W	1,090	0.21	4U	133	232	100%	650	537	75	461	

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area W**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
International	Arborlawn	Overton Plaza	1,240	0.23	4D	141	207	100%	700	658	82	576	
Lakeside/Altamesa	145' W of Pecan Valley	Bryant Irvin	7,310	1.38	2U	541	505	100%	425	1,177	1,448	-271	271
McCart	4420' N of Altamesa	Altamesa	4,415	0.84	6D	1,108	1,334	100%	700	3,512	2,042	1,470	
McCart	IH 20	3470' S of IH 20	3,470	0.66	5U	1,108	1,334	100%	700	1,840	1,605	235	
Oakmont	Harris	Bryant Irvin	680	0.13	4D	968	725	100%	700	361	218	143	
Oakmont	Chisholm Trail NB Enter Oakmont	Harris	1,675	0.32	4D	926	790	100%	700	888	544	344	
Oakmont	2178' E of Chisholm Trail NB Enter Oakmont	Chisholm Trail NB Enter Oakmont	2,180	0.41	4D	599	592	100%	700	1,156	492	664	
Oakmont	2360' N of Dutch Branch	Dutch Branch	2,360	0.45	4U	83	148	100%	650	1,162	103	1,059	
Oakmont	Hulen	1766' W of Hulen	1,765	0.33	4D	599	592	100%	700	936	398	538	
Oakmont	2175' S of Oakmont	Oakmont	2,170	0.41	4D	83	148	100%	700	1,151	95	1,056	
Overton Plaza	Hulen	1645' W of Hulen	1,645	0.31	5U	229	117	100%	700	872	108	765	
Overton Plaza	995' E of International	International	995	0.19	4D	229	117	100%	700	528	65	462	
Overton Ridge	Hulen	2686' W of Hulen	2,685	0.51	6D	685	804	100%	700	2,136	757	1,379	
Overton Ridge	3397' E of Bryant Irvin	Bryant Irvin	3,395	0.64	6D	863	689	100%	700	2,701	998	1,703	
Overton Ridge	Bryant Irvin	IH 20	2,605	0.49	6D	244	177	100%	700	2,072	208	1,864	
River Bend	Riverpark	Vickery	3,080	0.58	4U	139	139	100%	650	1,517	162	1,355	
Riverpark	River Bend	State Hwy 183	2,855	0.54	4U	187	340	100%	650	1,406	285	1,121	
Riverpark	Bryant Irvin	River Bend	3,205	0.61	4U	293	388	100%	650	1,578	413	1,165	
South	IH 20	Hulen	6,120	1.16	4U	237	272	100%	650	3,014	590	2,424	
University	Bluebonnet	Granbury	1,410	0.27	4U	400	400	50%	650	347	107	240	
University	Berry	Bluebonnet	2,370	0.45	4U	611	822	50%	650	584	322	262	
Vickery	Southwest	1625' W of Southwest	1,625	0.31	4U	403	943	50%	650	400	207	193	
Vickery	River Bend	Southwest	280	0.05	4D	428	1,206	50%	700	74	43	31	
Vickery	Bryant Irvin	River Bend	6,105	1.16	4U	351	1,170	50%	650	1,503	879	624	
<b>SUBTOTAL</b>			<b>200,745</b>	<b>38.02</b>							<b>47,627</b>	<b>54,292</b>	<b>301</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area X**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Altamesa	Hemphill	Crowley	4,245	0.80	6D	677	1,295	100%	700	3,377	1,585	1,791	
Altamesa	Oak Grove	Will Rogers	2,650	0.50	6D	528	712	100%	700	2,108	622	1,486	
Altamesa	Will Rogers	I 35W	2,580	0.49	6D	660	813	100%	700	2,052	720	1,333	
Altamesa	I 35W	Hemphill	4,580	0.87	6D	677	1,295	100%	700	3,643	1,711	1,933	
Altamesa	Wichita	Lana	1,745	0.33	4D	108	83	100%	700	925	63	862	
Anglin	Lon Stephenson	Enon	5,270	1.00	2U	132	308	100%	425	848	439	409	
Campus	Joe B Rushing	IH 20	2,665	0.50	6D	433	819	100%	700	2,120	632	1,488	
Campus	Seminary	Joe B Rushing	4,805	0.91	4D	483	581	100%	700	2,548	968	1,580	
Campus	IH 20	Oak Grove	4,405	0.83	6D	607	812	100%	700	3,504	1,184	2,320	
Crowley	4015' N of Sycamore School	Sycamore School	4,015	0.76	7U	1,147	2,164	50%	700	1,597	1,259	338	
Crowley	299' N of Altamesa	Altamesa	300	0.06	6D	1,021	1,645	50%	700	119	76	44	
Crowley	Altamesa	1065' S of Altamesa	1,065	0.20	6D	1,117	2,164	50%	700	424	331	93	
Dick Price	1935' N of Shadey Ln	310' S of Shadey Ln	2,245	0.43	2U	271	302	100%	425	361	244	118	
Edgecliff	IH 20	John B Sias Memorial	1,270	0.24	6D	750	750	50%	700	505	180	325	
Enon	2635' W of Anglin	Anglin	2,635	0.50	2U	76	85	100%	425	424	80	344	
Everman	I 35W	Will Rogers	2,625	0.50	6D	600	710	50%	700	1,044	326	718	
Everman	Will Rogers	Oak Grove	2,660	0.50	6D	600	710	50%	700	1,058	330	728	
Everman	San Rafael	Butterwick	2,830	0.54	4U	235	230	50%	650	697	125	572	
Everman	Sycamore School	Crowley	920	0.17	6D	644	154	50%	700	366	70	296	
Everman	110' E of Sheridan	I-35W	1,280	0.24	4D	600	710	50%	700	339	159	181	
Everman	Cameron Hill	110' E of Sheridan	1,335	0.25	2U-CG	600	710	50%	425	54	166	-112	112
Everman	Sycamore School	San Rafael	415	0.08	4D	235	230	50%	700	110	18	92	
Everman	Oak Grove	Marlene	1,080	0.20	4D	480	531	50%	700	286	103	183	
Everman Kennedale	3645' E of Anglin	5350' W of Anglin	1,705	0.32	2U	106	59	100%	425	274	53	221	
Everman Kennedale	Anglin	190' E of Anglin	190	0.04	2U	106	59	100%	425	31	6	25	
Everman Kennedale	2670' E of Anglin	3645' E of Anglin	975	0.18	2U	106	59	50%	425	78	15	63	
Felix	Oak Grove	I 35W	1,155	0.22	4U	250	250	100%	650	569	109	459	
Felix	1355' W of I 35W	I 35W	1,350	0.26	5U	282	369	100%	700	716	166	549	
Felix	Hemphill	1100' E of Hemphill	1,095	0.21	4U	282	369	100%	650	539	135	404	
Felix	1100' E of Hemphill	1355' W of I 35W	1,140	0.22	4D	282	369	100%	700	605	141	464	
Forest Hill	Lon Stephenson	905' S of Hanna Ranch	3,790	0.72	2U	350	526	100%	425	610	629	-19	19
Hemphill	360' S of Sycamore School	815' N of Everman	2,185	0.41	2U-CG	111	198	100%	425	176	128	48	
Hemphill	Sunderland	Sycamore School	4,150	0.79	2U-CG	68	228	100%	425	334	233	101	
Hemphill	Felix	IH 20	4,875	0.92	4U	501	849	100%	650	2,401	1,246	1,154	
Hemphill	Seminary	Felix	2,475	0.47	5U	543	871	100%	700	1,313	663	650	
Hemphill	Altamesa	981' S of Altamesa	980	0.19	4D	68	228	100%	700	520	55	465	
Hemphill	Sycamore School	360' S of Sycamore School	360	0.07	4D	111	198	100%	700	191	21	170	
James	Crowley	IH 20	705	0.13	4U	392	430	50%	650	174	55	119	
James	3413' N of Crowley	Crowley	3,415	0.65	4U	392	430	50%	650	841	266	575	
James	Seminary	2756' S of Seminary	2,755	0.52	4U	392	430	50%	650	678	214	464	
Joe B Rushing	Campus	Wichita	4,685	0.89	4D	187	110	100%	700	2,484	264	2,221	
Joel East	Oak Grove	Wichita	5,805	1.10	2U	109	129	100%	425	935	262	673	
Oak Grove	Joel East	Everman	6,600	1.25	2U	174	356	100%	425	1,063	663	400	
Oak Grove	Railroad	Joel East	1,780	0.34	2U-CG	257	432	100%	425	143	232	-89	89
Oak Grove	Campus	Altamesa	1,265	0.24	6D	671	907	100%	700	1,006	378	628	
Oak Grove	IH 20	1685' N of Campus	4,370	0.83	4U	158	127	100%	650	2,152	236	1,916	
Oak Grove	Felix	365' N of I 20	2,570	0.49	4U	250	250	100%	650	1,266	243	1,022	
Oak Grove	365' N of IH 20	IH 20	365	0.07	4D	250	250	100%	700	194	35	159	
Oak Grove	Englad	Campus	1,830	0.35	2U	158	127	100%	425	295	99	196	
Oak Grove	470' S of Altamesa	Railroad	525	0.10	2U-CG	257	432	100%	425	42	69	-26	26
Oak Grove	Altamesa	470' S of Altamesa	470	0.09	4D	257	432	100%	700	249	61	188	



**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area X**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Seminary	3268' W of Campus	7716' W of Campus	4,450	0.84	5U	594	568	50%	700	1,180	490	690	
Seminary	Hemphill	2660' W of Hemphill	2,655	0.50	4U	676	530	50%	650	654	303	350	
Seminary	I 35W	Hemphill	3,420	0.65	6D	787	872	50%	700	1,360	537	823	
Seminary	Larson	Campus	3,270	0.62	4D	594	568	100%	700	1,734	720	1,014	
Seminary	Campus	Old Mansfield	2,570	0.49	4D	500	486	100%	700	1,363	480	883	
Seminary	1395' E of James	James	1,390	0.26	4D	676	530	50%	700	369	159	210	
Sycamore School	Hemphill	Everman	3,310	0.63	4U	559	742	100%	650	1,630	816	814	
Sycamore School	I 35W	Hemphill	4,235	0.80	4U	679	792	100%	650	2,085	1,180	906	
Wichita	Joel East	960' S of Joel East	960	0.18	2U	479	686	100%	425	155	212	-57	57
Wichita	340' N of Altamesa	Joel East	1,040	0.20	2U	479	686	100%	425	167	229	-62	62
Wichita	Joe B Rushing	2435' N of Joe B Rushing	2,430	0.46	5U	684	959	50%	700	644	378	266	
Wichita	Joe B Rushing	I 20	3,770	0.71	5U	731	1,073	50%	700	1,000	644	356	
Will Rogers	Altamesa	Everman	9,395	1.78	4D	378	409	100%	700	4,982	1,400	3,582	
<b>SUBTOTAL</b>			<b>164,080</b>	<b>31.08</b>							<b>25,614</b>	<b>40,096</b>	<b>365</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area Y**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Altamesa	Chisholm Trail SBFR	Granbury	2,265	0.43	6D	877	643	50%	700	901	326	575	
Altamesa	Harris	Chisholm Trail SBFR	825	0.16	6D	877	643	50%	700	328	119	209	
Altamesa	Hulen	Granbury	4,735	0.90	6D	348	296	50%	700	1,883	289	1,594	
Altamesa	4350' E of McCart	McCart	4,350	0.82	6D	719	815	50%	700	1,730	632	1,098	
Altamesa	McCart	1585' W of McCart	1,585	0.30	6D	1,038	867	50%	700	630	286	344	
Altamesa	7707' E of Hulen	Hulen	7,705	1.46	6D	545	533	50%	700	3,064	787	2,278	
Altamesa	Crowley	3723' W of Crowley	1,505	0.29	6D	937	1,132	50%	700	599	295	304	
Altamesa Blvd	Bryant Irvin	Harris	2,735	0.52	6D	658	547	50%	700	1,088	312	776	
Brewer	2327' N of Risinger	Risinger	2,325	0.44	4D	62	51	100%	700	1,233	50	1,183	
Brewer	Rockrose	McPherson	855	0.16	2U-CG	50	50	100%	425	69	16	53	
Cleburne	Cleburne Crowley	3185' S of Cleburne Crowley	3,185	0.60	2U	13	16	100%	425	513	17	495	
Cleburne	335' N of Rancho Verde	330' S of Rancho Verde	665	0.13	3U	85	157	100%	650	164	30	133	
Cleburne Crowley	Stewart Feltz (Existing)	480' W of Cleburne	1,155	0.22	2U	63	111	100%	425	186	38	148	
Cleburne Crowley	Cleburne	945' E of Cleburne	945	0.18	2U	63	114	50%	425	76	16	60	
Cleburne Crowley	1130' E of Summer Creek	1990' E of Summer Creek	855	0.16	2U	63	114	50%	425	69	14	54	
Cleburne Crowley	480' W of Cleburne	Cleburne	480	0.09	2U	63	111	100%	425	77	16	61	
Cleburne Hulen	330' S of Rancho Verde	735' N of Cleburne	1,965	0.37	2U	85	157	100%	425	316	90	226	
Columbus	Old Granbury	Brewer (Future)	840	0.16	2U	100	100	100%	425	135	32	103	
Crowley	4465' N of McPherson	McPherson	4,465	0.85	5U	1,015	1,619	50%	700	1,184	1,114	70	
Crowley	1230' N of Risinger	1020' S of Sycamore School	5,385	1.02	5U	786	1,445	50%	700	1,428	1,138	290	
Crowley	Sycamore School	1021' S of Sycamore School	1,020	0.19	4D	786	1,445	50%	700	270	215	55	
Crowley	4015' N of Sycamore School	Sycamore School	4,015	0.76	7U	1,147	2,164	50%	700	1,597	1,259	338	
Crowley	299' N of Altamesa	Altamesa	300	0.06	6D	1,021	1,645	50%	700	119	76	44	
Crowley	Altamesa	1065' S of Altamesa	1,065	0.20	6D	1,117	2,164	50%	700	424	331	93	
Crowley	Risinger	740' S of Risinger	740	0.14	4D	1,015	1,619	50%	700	196	185	12	
Crowley	1230' N of Risinger	Risinger	1,230	0.23	4U	786	1,445	50%	650	303	260	43	
Granbury	445' S of Altamesa	275' S of Mesa Springs	1,190	0.23	4D	590	962	100%	700	631	350	281	
Granbury/Summer Creek	Summer Meadows	Sycamore School	1,720	0.33	4D	590	962	100%	700	912	506	407	
Hulen	Winnipeg	335' N of Rancho Verde	1,490	0.28	2U-CG	85	157	100%	425	120	68	52	
Hulen	McPherson	Risinger	5,390	1.02	4D	782	421	100%	700	2,858	1,228	1,630	
Hulen	Columbus	Risinger	4,000	0.76	4D	689	719	100%	700	2,121	1,067	1,055	
Hulen	1355' N of Columbus	Columbus	1,355	0.26	4D	689	719	100%	700	719	361	357	
Hulen	Sycamore School	1013' S of Sycamore School	1,015	0.19	4D	689	719	100%	700	538	271	268	
Hulen	1361' N of Sycamore School	Sycamore School	1,360	0.26	4D	686	1,095	100%	700	721	459	262	
Hulen	Altamesa	4431' S of Altamesa	4,430	0.84	4D	686	1,095	100%	700	2,349	1,494	855	
Hulen	McPherson	560' S of McPherson	560	0.11	4D	85	157	100%	700	297	26	271	
Hulen	560' S of McPherson	Winnipeg	840	0.16	2U-CG	85	157	100%	425	68	39	29	
McCart	590' S of Risinger	120' S of Cayman	1,615	0.31	2U-CG	61	100	100%	425	130	49	81	
McCart	6275' N of Risinger	Risinger	6,275	1.19	6D	484	658	100%	700	4,991	1,357	3,634	
McCart	Sycamore School	1037' S of Sycamore School	1,035	0.20	6D	942	1,457	100%	700	823	470	353	
McCart	3198' N of Sycamore School	Sycamore School	3,200	0.61	6D	966	1,343	100%	700	2,545	1,399	1,146	
McCart	Altamesa	2420' S of Altamesa	2,420	0.46	6D	1,209	1,702	100%	700	1,925	1,334	591	
McCart	Risinger	587' S of Risinger	585	0.11	6D	61	100	100%	700	465	18	448	
McCart	Mountain Meadow	1600' S of Mountain Meadow	1,600	0.30	2U-CG	46	48	100%	425	129	28	100	
McCart	140' N of Twinleaf	300' S of Twinleaf	445	0.08	4U	46	48	100%	650	219	8	211	
McCart	300' S of Twinleaf	Mountain Meadow	755	0.14	4U	46	48	100%	650	372	13	358	
McPherson	Summer Creek	Willow Branch	2,240	0.42	4D	442	229	100%	700	1,188	285	903	
McPherson	Summer Creek	Chisholm Trail SB Enter McPherson	1,915	0.36	4D	250	135	100%	700	1,016	140	876	
McPherson	795' E of Risinger	Chisholm Trail SBFR	4,725	0.89	2U-CG	36	28	100%	425	380	57	323	
McPherson	2145' E of Hulen	Hulen	2,145	0.41	4D	348	188	100%	700	1,138	218	920	
McPherson	Risinger	795' E of Risinger	795	0.15	2U-CG	36	28	50%	425	32	5	27	

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Existing Roadway Facilities Inventory**

**Service Area Y**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
McPherson	Willow Branch	Hulen	1,485	0.28	4D	442	229	100%	700	788	189	599	
Risinger	Chisholm Trail	Brewer	1,175	0.22	4D	100	148	100%	700	623	55	568	
Risinger	Summer Creek	Chisholm Trail	1,985	0.38	4D	300	300	100%	700	1,053	226	827	
Risinger	Hulen	Summer Creek	5,570	1.05	4D	316	307	100%	700	2,954	657	2,297	
Risinger	Hulen	McCart	5,350	1.01	4D	348	470	100%	700	2,837	829	2,008	
Risinger	McCart	759' E of McCart	760	0.14	4D	182	188	100%	700	403	53	350	
Risinger	275' E of Carolina	Crowley	2,375	0.45	2U	36	20	100%	425	382	25	357	
Risinger	760' E of McCart	Poynter	1,495	0.28	2U-CG	182	188	100%	425	120	105	16	
Summer Creek	McPherson	Sunflower Ridge	2,350	0.45	2U-CG	60	53	100%	425	189	50	139	
Summer Creek	Risinger	McPherson	3,490	0.66	4D	180	153	100%	700	1,851	220	1,631	
Summer Creek	Columbus	145' N of Summer Park	2,780	0.53	4D	612	1,240	100%	700	1,474	975	499	
Summer Creek	2515' S of Stewart Feltz	3055' S of Stewart Feltz	540	0.10	2U	4	5	100%	425	87	1	86	
Summer Creek	145' N of Summer Park	Risinger	2,240	0.42	4D	612	1,240	100%	700	1,188	786	402	
Summer Creek	Sycamore School	Columbus	1,075	0.20	4D	612	1,240	100%	700	570	377	193	
Summer Creek	1235' N of Summer Meadows	Summer Meadows	1,235	0.23	4D	590		100%	700	655	138	517	
Summer Creek	Altamesa	445' S of Altamesa	445	0.08	4D	590		100%	700	236	50	186	
Sycamore School	Brewer (Future)	Chisholm Trail SBFR	730	0.14	2U	100	100	100%	425	118	28	90	
Sycamore School	Ctp SB Ramp	Summer Creek	2,075	0.39	4D	772	369	100%	700	1,100	448	652	
Sycamore School	Crowley	McCart	6,535	1.24	6D	995	1,071	100%	700	5,198	2,557	2,641	
Sycamore School	McCart	Cleburne Rd	3,165	0.60	6U	774	712	100%	700	2,518	891	1,627	
Sycamore School	Hulen	Cleburne Rd	3,595	0.68	4D	774	712	100%	700	1,906	1,012	895	
Sycamore School	Creek Meadows	Hulen	4,970	0.94	4D	357	260	100%	700	2,636	581	2,055	
Sycamore School	Summer Creek	Creek Meadows	675	0.13	4D	357	260	100%	700	358	79	279	
<b>SUBTOTAL</b>			<b>166,390</b>	<b>31.51</b>							<b>29,522</b>	<b>44,992</b>	<b>0</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study  
Existing Roadway Facilities Inventory**

**Service Area Z**

9/29/2017

ROADWAY	FROM	TO	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PM PEAK HOUR VOL		% IN SERVICE AREA	VEH-MI CAPACITY PK-HR PER LN	VEH-MI SUPPLY PK-HR TOTAL	VEH-MI DEMAND PK-HR TOTAL	EXCESS CAPACITY PK-HR VEH-MI	EXISTING DEFICIENCIES PK-HR VEH-MI
						NB/EB	SB/WB						
Alsbury	IH-35W NBFR	Stone	1,140	0.22	5U	240	300	100%	700	605	117	488	
Crowley	4465' N of McPherson	McPherson	4,465	0.85	5U	1,015	1,619	50%	700	1,184	1,114	70	
Crowley	1230' N of Risinger	1020' S of Sycamore School	5,385	1.02	5U	786	1,445	50%	700	1,428	1,138	290	
Crowley	Sycamore School	1021' S of Sycamore School	1,020	0.19	4D	786	1,445	50%	700	270	215	55	
Crowley	Risinger	740' S of Risinger	740	0.14	4D	1,015	1,619	50%	700	196	185	12	
Crowley	1230' N of Risinger	Risinger	1,230	0.23	4U	786	1,445	50%	650	303	260	43	
Everman	I 35W	Will Rogers	2,625	0.50	6D	600	710	50%	700	1,044	326	718	
Everman	Will Rogers	Oak Grove	2,660	0.50	6D	600	710	50%	700	1,058	330	728	
Everman	Marlene	595' E of Christopher	7,660	1.45	4D	480	531	50%	700	2,031	733	1,298	
Everman	San Rafael	Butterwick	2,830	0.54	4U	235	230	50%	650	697	125	572	
Everman	Sycamore School	Crowley	920	0.17	6D	644	154	50%	700	366	70	296	
Everman	110' E of Sheridan	I-35W	1,280	0.24	4D	600	710	50%	700	339	159	181	
Everman	Cameron Hill	110' E of Sheridan	1,335	0.25	2U-CG	600	710	50%	425	54	166	-112	112
Everman	Sycamore School	San Rafael	415	0.08	4D	235	230	50%	700	110	18	92	
Everman	Oak Grove	Marlene	1,080	0.20	4D	480	531	50%	700	286	103	183	
FM 1187	Hemphill	1866' W of Hemphill	3,725	0.71	6D	1,385	1,597	100%	700	2,963	2,104	859	
Forest Hill	645' N of Chambers Creek	Shelby	2,395	0.45	2U	263	416	50%	425	193	154	39	
Hemphill	FM 1187	240' S of FM 1187	240	0.05	4D	97	33	100%	700	127	6	121	
Hemphill	Nuffield	FM 1187	2,225	0.42	4D	80	174	100%	700	1,180	107	1,073	
Hemphill	240' S of FM 1187	130' S of Windy Knoll	2,135	0.40	2U-CG	97	33	100%	425	172	53	119	
Hemphill	FM 1187 Wb	FM 1187 Eb	220	0.04	4D	83	123	100%	700	117	9	108	
Hemphill	655' N of Brasenose	Nuffield	655	0.12	2U-CG	80	174	100%	425	53	32	21	
Hemphill	Risinger	1670' S of Risinger	1,670	0.32	4D	25	16	100%	700	886	13	873	
Hemphill	655' N of Brasenose	Nuffield	605	0.11	2U-CG	80	174	100%	425	49	29	20	
Mc Alister	1430' W of IH-35W SBFR	IH-35W SBFR	1,430	0.27	3U	409	418	100%	650	352	224	128	
Mc Alister	IH 35W SBFR	IH 35W NBFR	485	0.09	2U	1,170	1,518	100%	425	78	247	-169	169
McPherson	1195' W of Deer	Bilsky Bay	2,100	0.40	4D	330	656	100%	700	1,114	392	721	
McPherson	Oak Grove	Forest Hill Everman	7,625	1.44	2U	191	141	100%	425	1,228	479	748	
McPherson	Bilsky Bay	IH-35W SBFR	480	0.09	4D	330	656	100%	700	255	90	165	
McPherson	IH-35W SBFR	IH-35W NBFR	680	0.13	4D	330	656	100%	700	361	127	234	
Oak Grove	McPherson	Oak Grove	2,340	0.44	2U	162	384	100%	425	377	242	135	
Oak Grove	Everman	Forum	2,070	0.39	4D	257	268	100%	700	1,098	206	892	
Oak Grove	Buffalo Springs	McPherson	830	0.16	2U	75	347	100%	425	134	66	67	
Oak Grove	Risinger	1020' S of Risinger	1,020	0.19	2U	69	342	100%	425	164	79	85	
Oak Grove	605' S of Forum	Risinger	1,325	0.25	2U	73	348	100%	425	213	106	108	
Oak Grove	Nicole	Nelson	360	0.07	4D	197	210	100%	700	191	28	163	
Oak Grove	310' S of Nelson	260' S of Smallwood	820	0.16	2U	197	210	100%	425	132	63	69	
Oak Grove	Forum	605' S of Forum	605	0.11	2U-CG	73	348	100%	425	49	48	0	
Oak Grove Shelby	Oak Grove	1400' E of Michael	3,035	0.57	2U	55	53	100%	425	489	62	427	
Oak Grove Shelby	1400' E of Michael	Race	2,290	0.43	2U	55	53	100%	425	369	47	322	
Rendon	Shelby	Oak Grove Shelby	2,555	0.48	2U	222	492	50%	425	206	173	33	
Rendon Crowley	Viewpoint	IH 35W	5,575	1.06	6D	1,591	1,334	100%	700	4,435	3,088	1,346	
Rendon Crowley	IH 35 W	536' W of Stone	3,415	0.65	6D	949	1,047	100%	700	2,716	1,291	1,426	
Rendon Crowley	536' W of Stone	Oak Grove	6,755	1.28	4U	949	1,047	100%	650	3,326	2,554	773	
Risinger	FM 731	Hemphill	4,030	0.76	2U	160	332	100%	425	649	376	273	
Risinger	Hemphill	IH-35W	4,620	0.88	2U	460	489	100%	425	744	830	-87	87
Risinger	IH-35W	1370' W of IH-35W	1,370	0.26	2U	460	489	100%	425	221	246	-26	26
Shelby	Race	Rendon	5,260	1.00	2U	269	202	50%	425	423	235	189	
Stone	Oak Grove E	Nelson	2,755	0.52	2U	162	384	100%	425	444	285	159	
Wichita	Race	795' W of Race	795	0.15	2U-CG	50	50	100%	425	64	15	49	
Wildcat Way	Burleson Retta	455' S of Thomas Crossing	2,315	0.44	2U	237	294	100%	425	373	233	140	
<b>SUBTOTAL</b>			<b>115,595</b>	<b>21.89</b>							<b>19,394</b>	<b>16,516</b>	<b>393</b>

**Appendix D – Plan for Awarding the  
Transportation Impact Fee Credit Summary**  
*(as prepared by NewGen Strategies.)*

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area A

Recoverable Impact Fee CIP Costs	\$ 63,078,617	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(2,907,160)	Page 4 of Appendix E - Service Area A
Financing Costs	16,251,884	See Detail Below
Existing Fund Balance	(3,801,158)	Page 1 of Appendix E - Service Area A
Interest Earnings	(2,658,678)	Page 5 of Appendix E - Service Area A
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 69,963,505</b>	Sum of Above
Credit for Ad Valorem Revenues	(197,309)	Page 8 of Appendix E - Service Area A
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 69,766,196</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area A column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area A). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 41,211,145	(Page 3 of Appendix E - Service Area A)
Existing Annual Debt Service	6,876,095	(Page 3 of Appendix E - Service Area A)
Principal Component	(31,835,357)	(Page 4 of Appendix E - Service Area A)
Financing Costs	<u>\$ 16,251,884</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area A.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area A.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area AA

Recoverable Impact Fee CIP Costs	\$ 10,821,430	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	-	Page 4 of Appendix E - Service Area A
Financing Costs	3,087,475	See Detail Below
Existing Fund Balance	(3,005,555)	Page 1 of Appendix E - Service Area AA
Interest Earnings	(619,114)	Page 5 of Appendix E - Service Area AA
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 10,284,237</b>	Sum of Above
Credit for Ad Valorem Revenues	(43,420)	Page 8 of Appendix E - Service Area AA
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 10,240,817</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area AA column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Not Applicable to Service Area AA

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area AA). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 8,486,303	(Page 3 of Appendix E - Service Area AA)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area AA)
Principal Component	(5,398,828)	(Page 4 of Appendix E - Service Area AA)
Financing Costs	<u>\$ 3,087,475</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area AA.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area AA.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.



## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area B

Recoverable Impact Fee CIP Costs	\$ 71,264,194	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(844,577)	Page 4 of Appendix E - Service Area A
Financing Costs	20,230,971	See Detail Below
Existing Fund Balance	(549,834)	Page 1 of Appendix E - Service Area B
Interest Earnings	(3,321,350)	Page 5 of Appendix E - Service Area B
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 86,779,404</b>	Sum of Above
Credit for Ad Valorem Revenues	(163,945)	Page 8 of Appendix E - Service Area B
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 86,615,459</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area B column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area B). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 53,414,019	(Page 3 of Appendix E - Service Area B)
Existing Annual Debt Service	3,231,791	(Page 3 of Appendix E - Service Area B)
Principal Component	(36,414,839)	(Page 4 of Appendix E - Service Area B)
Financing Costs	<u>\$ 20,230,971</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area B.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area B.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area C

Recoverable Impact Fee CIP Costs	\$ 84,780,273	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	-	Page 4 of Appendix E - Service Area A
Financing Costs	24,173,273	See Detail Below
Existing Fund Balance	(6,405,472)	Page 1 of Appendix E - Service Area C
Interest Earnings	(4,283,138)	Page 5 of Appendix E - Service Area C
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 98,264,936</b>	Sum of Above
Credit for Ad Valorem Revenues	(572,136)	Page 8 of Appendix E - Service Area C
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 97,692,801</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area C column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Not Applicable to Service Area C

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area C). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 66,443,195	(Page 3 of Appendix E - Service Area C)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area C)
Principal Component	(42,269,922)	(Page 4 of Appendix E - Service Area C)
Financing Costs	<u>\$ 24,173,273</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area C.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area C.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area D

Recoverable Impact Fee CIP Costs	\$ 52,547,200	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(7,852,053)	Page 4 of Appendix E - Service Area A
Financing Costs	11,357,684	See Detail Below
Existing Fund Balance	(8,931,787)	Page 1 of Appendix E - Service Area D
Interest Earnings	(1,810,935)	Page 5 of Appendix E - Service Area D
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 45,310,110</b>	Sum of Above
Credit for Ad Valorem Revenues	(493,742)	Page 8 of Appendix E - Service Area D
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 44,816,368</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area D column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area D). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 23,487,369	(Page 3 of Appendix E - Service Area D)
Existing Annual Debt Service	12,595,850	(Page 3 of Appendix E - Service Area D)
Principal Component	(24,725,536)	(Page 4 of Appendix E - Service Area D)
Financing Costs	<u>\$ 11,357,684</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area D.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area D.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area E

Recoverable Impact Fee CIP Costs	\$ 67,279,673	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(703,700)	Page 4 of Appendix E - Service Area A
Financing Costs	19,172,738	See Detail Below
Existing Fund Balance	(1,603,710)	Page 1 of Appendix E - Service Area E
Interest Earnings	(3,131,734)	Page 5 of Appendix E - Service Area E
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 81,013,267</b>	Sum of Above
Credit for Ad Valorem Revenues	(145,537)	Page 8 of Appendix E - Service Area E
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 80,867,730</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area E column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area E). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 49,567,798	(Page 3 of Appendix E - Service Area E)
Existing Annual Debt Service	4,571,575	(Page 3 of Appendix E - Service Area E)
Principal Component	(34,966,635)	(Page 4 of Appendix E - Service Area E)
Financing Costs	<u>\$ 19,172,738</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area E.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area E.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area F

Recoverable Impact Fee CIP Costs	\$ 20,255,050	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(1,629,129)	Page 4 of Appendix E - Service Area A
Financing Costs	4,670,178	See Detail Below
Existing Fund Balance	(2,410,940)	Page 1 of Appendix E - Service Area F
Interest Earnings	(770,860)	Page 5 of Appendix E - Service Area F
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 20,114,299</b>	Sum of Above
Credit for Ad Valorem Revenues	(57,867)	Page 8 of Appendix E - Service Area F
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 20,056,432</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area F column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area F). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 11,805,093	(Page 3 of Appendix E - Service Area F)
Existing Annual Debt Service	3,772,845	(Page 3 of Appendix E - Service Area F)
Principal Component	(10,907,760)	(Page 4 of Appendix E - Service Area F)
Financing Costs	<u>\$ 4,670,178</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area F.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area F.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area G

Recoverable Impact Fee CIP Costs	\$ 49,686,898	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(1,901,503)	Page 4 of Appendix E - Service Area A
Financing Costs	12,821,338	See Detail Below
Existing Fund Balance	(722,605)	Page 1 of Appendix E - Service Area G
Interest Earnings	(2,090,793)	Page 5 of Appendix E - Service Area G
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 57,793,336</b>	Sum of Above
Credit for Ad Valorem Revenues	(138,441)	Page 8 of Appendix E - Service Area G
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 57,654,894</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area G column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area G). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 34,551,965	(Page 3 of Appendix E - Service Area G)
Existing Annual Debt Service	4,049,677	(Page 3 of Appendix E - Service Area G)
Principal Component	(25,780,304)	(Page 4 of Appendix E - Service Area G)
Financing Costs	<u>\$ 12,821,338</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area G.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area G.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area L

Recoverable Impact Fee CIP Costs	\$ 1,889,029	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(764,108)	Page 4 of Appendix E - Service Area A
Financing Costs	333,721	See Detail Below
Existing Fund Balance	(252,175)	Page 1 of Appendix E - Service Area L
Interest Earnings	(21,997)	Page 5 of Appendix E - Service Area L
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 1,184,470</b>	Sum of Above
Credit for Ad Valorem Revenues	(857)	Page 8 of Appendix E - Service Area L
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 1,183,613</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area L column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area L). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 103,258	(Page 3 of Appendix E - Service Area L)
Existing Annual Debt Service	1,265,918	(Page 3 of Appendix E - Service Area L)
Principal Component	(1,035,455)	(Page 4 of Appendix E - Service Area L)
Financing Costs	<u>\$ 333,721</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area L.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area L.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.



## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area M

Recoverable Impact Fee CIP Costs	\$ 51,633,003	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(824,148)	Page 4 of Appendix E - Service Area A
Financing Costs	14,550,722	See Detail Below
Existing Fund Balance	(292,876)	Page 1 of Appendix E - Service Area M
Interest Earnings	(2,410,530)	Page 5 of Appendix E - Service Area M
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 62,656,171</b>	Sum of Above
Credit for Ad Valorem Revenues	(87,329)	Page 8 of Appendix E - Service Area M
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 62,568,842</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area M column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area M). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 38,942,785	(Page 3 of Appendix E - Service Area M)
Existing Annual Debt Service	1,602,929	(Page 3 of Appendix E - Service Area M)
Principal Component	(25,994,993)	(Page 4 of Appendix E - Service Area M)
Financing Costs	<u>\$ 14,550,722</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area M.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area M.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area N

Recoverable Impact Fee CIP Costs	\$ 13,625,370	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	-	Page 4 of Appendix E - Service Area A
Financing Costs	3,889,232	See Detail Below
Existing Fund Balance	(2,181,034)	Page 1 of Appendix E - Service Area N
Interest Earnings	(727,871)	Page 5 of Appendix E - Service Area N
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 14,605,697</b>	Sum of Above
Credit for Ad Valorem Revenues	(19,137)	Page 8 of Appendix E - Service Area N
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 14,586,560</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area N column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Not Applicable to Service Area N

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area N). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 10,690,030	(Page 3 of Appendix E - Service Area N)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area N)
Principal Component	(6,800,798)	(Page 4 of Appendix E - Service Area N)
Financing Costs	<u>\$ 3,889,232</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area N.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area N.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area O

Recoverable Impact Fee CIP Costs	\$ 10,535,686	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	-	Page 4 of Appendix E - Service Area A
Financing Costs	3,005,770	See Detail Below
Existing Fund Balance	(544,910)	Page 1 of Appendix E - Service Area O
Interest Earnings	(525,372)	Page 5 of Appendix E - Service Area O
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 12,471,173</b>	Sum of Above
Credit for Ad Valorem Revenues	(3,019)	Page 8 of Appendix E - Service Area O
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 12,468,154</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area O column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Not Applicable to Service Area O

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area O). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 8,261,725	(Page 3 of Appendix E - Service Area O)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area O)
Principal Component	(5,255,956)	(Page 4 of Appendix E - Service Area O)
Financing Costs	<u>\$ 3,005,770</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area O.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area O.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area PI

Recoverable Impact Fee CIP Costs	\$ 7,814,805	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	-	Page 4 of Appendix E - Service Area PI
Financing Costs	2,234,561	See Detail Below
Existing Fund Balance	-	Page 1 of Appendix E - Service Area PI
Interest Earnings	(377,128)	Page 5 of Appendix E - Service Area PI
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 9,672,238</b>	Sum of Above
Credit for Ad Valorem Revenues	(12,504)	Page 8 of Appendix E - Service Area PI
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 9,659,734</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area PI column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Not Applicable to Service Area PI

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area PI). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 6,141,963	(Page 3 of Appendix E - Service Area PI)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area PI)
Principal Component	(3,907,403)	(Page 4 of Appendix E - Service Area PI)
Financing Costs	<u>\$ 2,234,561</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area PI.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area PI.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area S

Recoverable Impact Fee CIP Costs	\$ 53,622,813	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(229,882)	Page 4 of Appendix E - Service Area A
Financing Costs	15,118,840	See Detail Below
Existing Fund Balance	(2,047,407)	Page 1 of Appendix E - Service Area S
Interest Earnings	(2,607,150)	Page 5 of Appendix E - Service Area S
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 63,857,214</b>	Sum of Above
Credit for Ad Valorem Revenues	(93,732)	Page 8 of Appendix E - Service Area S
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 63,763,481</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area S column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area S). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 41,472,676	(Page 3 of Appendix E - Service Area S)
Existing Annual Debt Service	489,586	(Page 3 of Appendix E - Service Area S)
Principal Component	(26,843,422)	(Page 4 of Appendix E - Service Area S)
Financing Costs	<u>\$ 15,118,840</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area S.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area S.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area T

Recoverable Impact Fee CIP Costs	\$ 14,271,038	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	-	Page 4 of Appendix E - Service Area A
Financing Costs	4,073,854	See Detail Below
Existing Fund Balance	(1,035,694)	Page 1 of Appendix E - Service Area T
Interest Earnings	(721,678)	Page 5 of Appendix E - Service Area T
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 16,587,520</b>	Sum of Above
Credit for Ad Valorem Revenues	(10,580)	Page 8 of Appendix E - Service Area T
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 16,576,940</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area T column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Not Applicable to Service Area T

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area T). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 11,197,486	(Page 3 of Appendix E - Service Area T)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area T)
Principal Component	(7,123,632)	(Page 4 of Appendix E - Service Area T)
Financing Costs	<u>\$ 4,073,854</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area T.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area T.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area U

Recoverable Impact Fee CIP Costs	\$ 98,161,210	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	-	Page 4 of Appendix E - Service Area A
Financing Costs	28,061,361	See Detail Below
Existing Fund Balance	(115,590)	Page 1 of Appendix E - Service Area U
Interest Earnings	(4,737,889)	Page 5 of Appendix E - Service Area U
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 121,369,092</b>	Sum of Above
Credit for Ad Valorem Revenues	(278,091)	Page 8 of Appendix E - Service Area U
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 121,091,000</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area U column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Not Applicable to Service Area U

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area U). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 77,130,078	(Page 3 of Appendix E - Service Area U)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area U)
Principal Component	(49,068,718)	(Page 4 of Appendix E - Service Area U)
Financing Costs	<u>\$ 28,061,361</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area U.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area U.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.



## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area V

Recoverable Impact Fee CIP Costs	\$ 5,243,452	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	-	Page 4 of Appendix E - Service Area A
Financing Costs	1,492,511	See Detail Below
Existing Fund Balance	-	Page 1 of Appendix E - Service Area V
Interest Earnings	(252,042)	Page 5 of Appendix E - Service Area V
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 6,483,922</b>	Sum of Above
Credit for Ad Valorem Revenues	(849)	Page 8 of Appendix E - Service Area V
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 6,483,072</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area V column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Not Applicable to Service Area V

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area V). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 4,102,350	(Page 3 of Appendix E - Service Area V)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area V)
Principal Component	(2,609,839)	(Page 4 of Appendix E - Service Area V)
Financing Costs	<u>\$ 1,492,511</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area V.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area V.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area W

Recoverable Impact Fee CIP Costs	\$ 10,346,513	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(2,117,333)	Page 4 of Appendix E - Service Area A
Financing Costs	2,378,500	See Detail Below
Existing Fund Balance	(858,591)	Page 1 of Appendix E - Service Area W
Interest Earnings	(347,073)	Page 5 of Appendix E - Service Area W
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 9,402,016</b>	Sum of Above
Credit for Ad Valorem Revenues	(7,461)	Page 8 of Appendix E - Service Area W
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 9,394,555</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area W column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area W). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 4,958,848	(Page 3 of Appendix E - Service Area W)
Existing Annual Debt Service	2,470,330	(Page 3 of Appendix E - Service Area W)
Principal Component	(5,050,678)	(Page 4 of Appendix E - Service Area W)
Financing Costs	<u>\$ 2,378,500</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area W.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area W.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area X

Recoverable Impact Fee CIP Costs	\$ 47,061,539	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	-	Page 4 of Appendix E - Service Area A
Financing Costs	13,449,951	See Detail Below
Existing Fund Balance	(2,282,342)	Page 1 of Appendix E - Service Area X
Interest Earnings	(2,345,004)	Page 5 of Appendix E - Service Area X
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 55,884,143</b>	Sum of Above
Credit for Ad Valorem Revenues	(56,315)	Page 8 of Appendix E - Service Area X
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 55,827,829</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area X column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Not Applicable to Service Area X

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area X). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 36,968,833	(Page 3 of Appendix E - Service Area X)
Existing Annual Debt Service	-	(Page 3 of Appendix E - Service Area X)
Principal Component	(23,518,882)	(Page 4 of Appendix E - Service Area X)
Financing Costs	<u>\$ 13,449,951</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area X.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area X.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area Y

Recoverable Impact Fee CIP Costs	\$ 133,831,759	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(5,022,496)	Page 4 of Appendix E - Service Area A
Financing Costs	36,602,873	See Detail Below
Existing Fund Balance	(2,086,680)	Page 1 of Appendix E - Service Area Y
Interest Earnings	(6,051,771)	Page 5 of Appendix E - Service Area Y
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 157,273,685</b>	Sum of Above
Credit for Ad Valorem Revenues	(739,656)	Page 8 of Appendix E - Service Area Y
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 156,534,029</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area Y column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area Y). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 97,045,290	(Page 3 of Appendix E - Service Area Y)
Existing Annual Debt Service	5,601,345	(Page 3 of Appendix E - Service Area Y)
Principal Component	(66,043,763)	(Page 4 of Appendix E - Service Area Y)
Financing Costs	<u>\$ 36,602,873</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area Y.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area Y.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

## SUMMARY OF ROADWAY IMPACT FEE DETERMINATION

Service Area Z

Recoverable Impact Fee CIP Costs	\$ 121,385,598	Line 15, Maximum Fee Calculation Table
Principal Paid on Existing Debt Funded Project Costs	(735,197)	Page 4 of Appendix E - Service Area A
Financing Costs	34,628,692	See Detail Below
Existing Fund Balance	(3,192,650)	Page 1 of Appendix E - Service Area Z
Interest Earnings	(5,810,307)	Page 5 of Appendix E - Service Area Z
<b>Pre Credit Recoverable Cost for Impact Fee</b>	<b>\$ 146,276,135</b>	Sum of Above
Credit for Ad Valorem Revenues	(410,191)	Page 8 of Appendix E - Service Area Z
<b>Maximum Recoverable Cost for Impact Fee</b>	<b>\$ 145,865,944</b>	

### Recoverable Impact Fee CIP Costs:

Represents the portion of capital improvement costs that are eligible for funding through impact fees.  
Reference is Service Area Z column, line 15 on the Max Fee Calculation Table.

### Principal Paid on Existing Debt Funded Project Costs:

Represents the portion of principal paid for existing debt funded project costs as provided by the City.

### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs. It is assumed one-half of the new impact fee project costs will be funded through new debt issues (Page 7 of Appendix E - Service Area Z). Interest costs are derived from forecasted debt issues.

New Annual Debt Service	\$ 92,433,306	(Page 3 of Appendix E - Service Area Z)
Existing Annual Debt Service	4,017,666	(Page 3 of Appendix E - Service Area Z)
Principal Component	(61,822,280)	(Page 4 of Appendix E - Service Area Z)
Financing Costs	<u>\$ 34,628,692</u>	

### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.65% annual interest rate based on the City's current annual return as of 06/30/2017. The Impact Fee Statute states that interest earnings are funds of the impact fee account and are held to the same restrictions as impact fee revenues. Therefore in order to recognize that interest earnings are used to fund capital improvements, interest earnings are credited against the recoverable costs. Reference is the sum of Accumulated Interest on page 5 of Appendix E - Service Area Z.

### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee CIP Costs plus Financing Costs less Interest Earnings.

### Credit for Ad Valorem Revenues:

In 2001, the Impact Fee Statute was amended to include a credit for ad valorem and utility revenues generated by new service units during the ten-year timeframe that are used to fund impact fee eligible projects for which the new service units were charged an impact fee. The intent of this amendment is to avoid double-charging the new service units for impact fee capital improvements. The credit recognizes ad valorem revenues used to fund the debt service of debt financed impact fee eligible projects and assumes that all non-debt funded impact fee eligible project costs will be funded solely through impact fee revenues or non-ad valorem revenue sources. Reference is page 8 of Appendix E - Service Area Z.

### Maximum Recoverable Cost for Impact Fee:

Represents Pre Credit Recoverable Cost for Impact Fee less Credit for Ad Valorem Revenues.  
This is the maximum cost that can be recovered through impact fees.

**Appendix E – Plan for Awarding the  
Transportation Impact Fee Credit Supporting Exhibits**  
*(as prepared by NewGen Strategies.)*

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area A

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	3,445
Existing Fund Balance <sup>(3)</sup>	3,801,158
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 8,524,755
Non-debt Funded New Project Cost <sup>(5)</sup>	28,336,100
New Project Cost Funded Through New Debt <sup>(6)</sup>	26,217,762
Total Recoverable Project Cost <sup>(7)</sup>	\$ 63,078,617

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 2,621,776	3.25%	20
2	2,621,776	4.25%	20
3	2,621,776	5.00%	20
4	2,621,776	5.00%	20
5	2,621,776	5.00%	20
6	2,621,776	5.00%	20
7	2,621,776	5.00%	20
8	2,621,776	5.00%	20
9	2,621,776	5.00%	20
10	2,621,776	5.00%	20
Total	\$ 26,189,325		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 4,091,540
2	5,455,386
3	5,455,386
4	5,455,386
5	5,455,386
6	5,455,386
7	5,455,386
8	5,455,386
9	5,455,386
10	6,819,233
Total	\$ 54,553,862

- (1) Annual return as of 2017  
 (2) Derived from the 10-year Growth Projections Report, Table 7  
 (3) Balances provided by City Staff as of August 2017  
 (4) Existing debt funded project costs from details provided by staff  
 (5) Assumes 50% of new project costs funded through sources other than debt  
 (6) Assumes 50% of new project costs funded through new debt issues  
 (7) Line 15 of the Max Fee Table Report  
 (8) Assumes new debt issued in equal annual amounts  
 (9) Estimated interest cost provided by City Staff  
 (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area A

### I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 180,323	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 180,323
2	180,323	197,210	-	-	-	-	-	-	-	-	377,532
3	180,323	197,210	210,378	-	-	-	-	-	-	-	587,911
4	180,323	197,210	210,378	210,378	-	-	-	-	-	-	798,289
5	180,323	197,210	210,378	210,378	210,378	-	-	-	-	-	1,008,667
6	180,323	197,210	210,378	210,378	210,378	210,378	-	-	-	-	1,219,045
7	180,323	197,210	210,378	210,378	210,378	210,378	210,378	-	-	-	1,429,423
8	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	-	-	1,639,801
9	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	-	1,850,179
10	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
11	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
12	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
13	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
14	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
15	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
16	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
17	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
18	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
19	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
20	180,323	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	2,060,557
21	-	197,210	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	1,880,234
22	-	-	210,378	210,378	210,378	210,378	210,378	210,378	210,378	210,378	1,683,025
23	-	-	-	210,378	210,378	210,378	210,378	210,378	210,378	210,378	1,472,647
24	-	-	-	-	210,378	210,378	210,378	210,378	210,378	210,378	1,262,269
25	-	-	-	-	-	210,378	210,378	210,378	210,378	210,378	1,051,891
26	-	-	-	-	-	-	210,378	210,378	210,378	210,378	841,512
27	-	-	-	-	-	-	-	210,378	210,378	210,378	631,134
28	-	-	-	-	-	-	-	-	210,378	210,378	420,756
29	-	-	-	-	-	-	-	-	-	210,378	210,378
	\$ 3,606,457	\$ 3,944,191	\$ 4,207,562	\$ 4,207,562	\$ 4,207,562	\$ 4,207,562	\$ 4,207,562	\$ 4,207,562	\$ 4,207,562	\$ 4,207,562	\$ 41,211,145

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### II. Summary of Annual Expenses

Year	New Annual Debt <u>Service(1)</u>	Annual Capital Expenditures(2)	Annual Bond Proceeds(2)	Existing Annual Debt <u>Service(3)</u>	Annual Credit(4)	Total Expense
1	\$ 180,323	\$ 4,091,540	\$ (2,621,776)	\$ 800,499	\$ (1,847)	\$ 2,448,738
2	377,532	5,455,386	(2,621,776)	821,169	(4,506)	4,027,806
3	587,911	5,455,386	(2,621,776)	796,877	(7,793)	4,210,604
4	798,289	5,455,386	(2,621,776)	775,260	(11,785)	4,395,373
5	1,008,667	5,455,386	(2,621,776)	754,006	(16,472)	4,579,812
6	1,219,045	5,455,386	(2,621,776)	732,753	(21,846)	4,763,562
7	1,429,423	5,455,386	(2,621,776)	355,106	(23,259)	4,594,879
8	1,639,801	5,455,386	(2,621,776)	341,559	(29,459)	4,785,511
9	1,850,179	5,455,386	(2,621,776)	328,010	(36,366)	4,975,433
10	2,060,557	6,819,233	(2,621,776)	314,463	(43,976)	6,528,501
11	2,060,557	-	-	300,916	-	2,361,473
12	2,060,557	-	-	146,719	-	2,207,276
13	2,060,557	-	-	140,736	-	2,201,293
14	2,060,557	-	-	134,530	-	2,195,087
15	2,060,557	-	-	128,183	-	2,188,741
16	2,060,557	-	-	1,959	-	2,062,516
17	2,060,557	-	-	1,152	-	2,061,710
18	2,060,557	-	-	1,115	-	2,061,672
19	2,060,557	-	-	1,083	-	2,061,640
20	2,060,557	-	-	-	-	2,060,557
21	1,880,234	-	-	-	-	1,880,234
22	1,683,025	-	-	-	-	1,683,025
23	1,472,647	-	-	-	-	1,472,647
24	1,262,269	-	-	-	-	1,262,269
25	1,051,891	-	-	-	-	1,051,891
26	841,512	-	-	-	-	841,512
27	631,134	-	-	-	-	631,134
28	420,756	-	-	-	-	420,756
29	210,378	-	-	-	-	210,378
	\$ 41,211,145	\$ 54,553,862	\$ (26,217,762)	\$ 6,876,095	\$ (197,309)	\$ 76,226,032

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2008 GO</u>	<u>2009 GO</u>	<u>2012 GO</u>	<u>2014 GO</u>	<u>2016 GO</u>	<u>TOTAL</u>
2007						-
2008	-					-
2009	334,948	-				334,948
2010	104,788	4,238				109,026
2011	104,788	4,238				109,026
2012	104,788	4,238	-			109,026
2013	104,788	4,238	123,105			232,131
2014	104,788	4,238	123,105	-		232,131
2015	104,554	4,238	123,105	360,597		592,494
2016	104,554	4,238	123,249	360,597		592,639
2017	104,554	4,238	123,105	360,597	3,245	595,739
	\$ 1,172,552	\$ 33,904	\$ 615,668	\$ 1,081,791	\$ 3,245	\$ 2,907,160

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	8,524,755
-Less Principal PTD	2,907,160
Outstanding Debt Principal	5,617,595
New Project Costs Debt Principal(5)	26,217,762
<b>Principal Component</b>	<b>\$ 31,835,357</b>

(1) Appendix E - Service Area A, Page 2

(2) Appendix E - Service Area A, Page 1

(3) Existing debt funded project costs from details provided by staff

(4) Appendix E - Service Area A, Page 8

(5) Appendix E - Service Area A, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area A

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 3,801,158
1	\$ 2,025	3,445	\$ 6,976,620	\$ 2,448,738	\$ 4,527,881	39,423	8,368,462
2	2,025	3,445	6,976,620	4,027,806	2,948,814	63,979	11,381,255
3	2,025	3,445	6,976,620	4,210,604	2,766,016	82,968	14,230,238
4	2,025	3,445	6,976,620	4,395,373	2,581,246	100,886	16,912,370
5	2,025	3,445	6,976,620	4,579,812	2,396,808	117,720	19,426,898
6	2,025	3,445	6,976,620	4,763,562	2,213,058	133,467	21,773,423
7	2,025	3,445	6,976,620	4,594,879	2,381,740	149,268	24,304,431
8	2,025	3,445	6,976,620	4,785,511	2,191,109	165,100	26,660,639
9	2,025	3,445	6,976,620	4,975,433	2,001,187	179,798	28,841,624
10	2,025	3,445	6,976,620	6,528,501	448,119	188,927	29,478,670
11	-	-	-	2,361,473	(2,361,473)	183,937	27,301,134
12	-	-	-	2,207,276	(2,207,276)	170,284	25,264,141
13	-	-	-	2,201,293	(2,201,293)	157,063	23,219,910
14	-	-	-	2,195,087	(2,195,087)	143,795	21,168,619
15	-	-	-	2,188,741	(2,188,741)	130,483	19,110,361
16	-	-	-	2,062,516	(2,062,516)	117,514	17,165,359
17	-	-	-	2,061,710	(2,061,710)	104,874	15,208,523
18	-	-	-	2,061,672	(2,061,672)	92,155	13,239,006
19	-	-	-	2,061,640	(2,061,640)	79,353	11,256,719
20	-	-	-	2,060,557	(2,060,557)	66,472	9,262,633
21	-	-	-	1,880,234	(1,880,234)	54,096	7,436,495
22	-	-	-	1,683,025	(1,683,025)	42,867	5,796,338
23	-	-	-	1,472,647	(1,472,647)	32,890	4,356,581
24	-	-	-	1,262,269	(1,262,269)	24,215	3,118,528
25	-	-	-	1,051,891	(1,051,891)	16,852	2,083,489
26	-	-	-	841,512	(841,512)	10,808	1,252,785
27	-	-	-	631,134	(631,134)	6,092	627,742
28	-	-	-	420,756	(420,756)	2,713	209,699
29	-	-	-	210,378	(210,378)	679	-
			69,766,196	76,226,032		2,658,678	

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area A

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	3,445	4,143	\$ 2,448,738	\$ 2,945,353
2	28	1.1950	1.0000	3,445	4,116	4,027,806	4,813,375
3	27	1.1873	1.0000	3,445	4,090	4,210,604	4,999,330
4	26	1.1797	1.0000	3,445	4,063	4,395,373	5,185,008
5	25	1.1720	1.0000	3,445	4,037	4,579,812	5,367,691
6	24	1.1645	1.0000	3,445	4,011	4,763,562	5,546,997
7	23	1.1569	1.0000	3,445	3,985	4,594,879	5,316,018
8	22	1.1495	1.0000	3,445	3,959	4,785,511	5,500,813
9	21	1.1420	1.0000	3,445	3,934	4,975,433	5,682,188
10	20	1.1347	1.0000	3,445	3,908	6,528,501	7,407,718
11	19	1.1273	1.0000	-	-	2,361,473	2,662,197
12	18	1.1201	1.0000	-	-	2,207,276	2,472,294
13	17	1.1128	1.0000	-	-	2,201,293	2,449,670
14	16	1.1056	1.0000	-	-	2,195,087	2,426,988
15	15	1.0985	1.0000	-	-	2,188,741	2,404,343
16	14	1.0914	1.0000	-	-	2,062,516	2,251,052
17	13	1.0844	1.0000	-	-	2,061,710	2,235,641
18	12	1.0774	1.0000	-	-	2,061,672	2,221,163
19	11	1.0704	1.0000	-	-	2,061,640	2,206,784
20	10	1.0635	1.0000	-	-	2,060,557	2,191,381
21	9	1.0566	1.0000	-	-	1,880,234	1,986,696
22	8	1.0498	1.0000	-	-	1,683,025	1,766,836
23	7	1.0430	1.0000	-	-	1,472,647	1,535,997
24	6	1.0363	1.0000	-	-	1,262,269	1,308,067
25	5	1.0296	1.0000	-	-	1,051,891	1,083,016
26	4	1.0229	1.0000	-	-	841,512	860,817
27	3	1.0163	1.0000	-	-	631,134	641,444
28	2	1.0098	1.0000	-	-	420,756	424,867
29	1	1.0033	1.0000	-	-	210,378	211,062
						40,248	76,226,032
							86,104,805

Total Escalated Expense for Entire Period	\$ 86,104,805
Less Future Value of Initial Fund Balance	4,586,860
Net Escalated Expense for Entire Period	\$ 81,517,945
Total Escalated Service Units	40,248
<b>Impact Fee for Service Area A</b>	<b>\$ 2,025</b>

City of Fort Worth - 2017 Transportation Impact Fee Study

Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area A

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Litsey (1)	A-1	\$ 4,054,000	100%	\$ 4,054,000	\$ 3,435,403	\$ -	\$ 1,717,702	\$ 1,717,702	\$ 3,435,403
Litsey (2)	A-2	2,107,000	100%	2,107,000	1,785,494	-	892,747	892,747	1,785,494
Litsey (3)	A-3	1,866,000	100%	1,866,000	1,581,268	-	790,634	790,634	1,581,268
Litsey (4)	A-4	3,264,432	100%	3,264,432	2,766,314	1,355,857		1,410,457	2,766,314
Eagle (3)	A-5	1,385,000	100%	1,385,000	1,173,664	-	586,832	586,832	1,173,664
Henrietta Creek (1)	A-6	4,449,000	100%	4,449,000	3,770,130	-	1,885,065	1,885,065	3,770,130
Henrietta Creek (2)	A-7	1,172,000	100%	1,172,000	993,165	-	496,583	496,583	993,165
Westport (1)	A-8	1,620,000	100%	1,620,000	1,372,805	-	686,403	686,403	1,372,805
Westport (2)	A-9	4,505,000	100%	4,505,000	3,817,585	-	1,908,793	1,908,793	3,817,585
Westport (3)	A-10	3,833,000	100%	3,833,000	3,248,125	-	1,624,063	1,624,063	3,248,125
Westport (4)	A-11	3,342,000	100%	3,342,000	2,832,047	-	1,416,023	1,416,023	2,832,047
Westport (5)	A-12	767,000	100%	767,000	649,964	-	324,982	324,982	649,964
Westport (6)	A-13	3,257,000	100%	3,257,000	2,760,017	-	1,380,008	1,380,008	2,760,017
Westport (7)	A-14	1,388,000	100%	1,388,000	1,176,206	-	588,103	588,103	1,176,206
Timberland (1)	A-15, D-1	2,086,000	50%	1,043,000	883,849	263,569	-	620,280	883,849
Timberland (2)	A-16, D-2	504,000	50%	252,000	213,548	-	106,774	106,774	213,548
Timberland (3)	A-17, D-3	5,241,058	50%	2,620,529	2,220,665	1,359,380	430,642	430,642	2,220,665
Timberland (4)	A-18, D-4	1,703,344	50%	851,672	721,716	441,799	139,959	139,959	721,716
Timberland (5)	A-19, D-5	1,694,000	50%	847,000	717,757	-	358,878	358,878	717,757
Timberland (6)	A-20, D-6	1,447,000	50%	723,500	613,102	-	306,551	306,551	613,102
Old Denton (1)	A-21	1,608,000	100%	1,608,000	1,362,636	-	681,318	681,318	1,362,636
Old Denton (2)	A-22	1,176,000	100%	1,176,000	996,555	-	498,278	498,278	996,555
Beach (1)	A-23	1,130,000	100%	1,130,000	957,574	-	478,787	478,787	957,574
Beach (2)	A-24	1,881,000	100%	1,881,000	1,593,980	-	796,990	796,990	1,593,980
Beach (3)	A-25	599,000	100%	599,000	507,599	-	253,800	253,800	507,599
Beach (4)	A-26	1,562,000	100%	1,562,000	1,323,656	-	661,828	661,828	1,323,656
Beach (5)	A-27	2,047,000	100%	2,047,000	1,734,650	1,670,824	-	63,825	1,734,650
Beach (6)	A-28	1,698,000	100%	1,698,000	1,438,903	-	719,452	719,452	1,438,903
Beach (7)	A-29, D-32	3,415,000	50%	1,707,500	1,446,954	1,446,954	-	-	1,446,954
Beach (8)	A-30, D-33	1,285,000	50%	642,500	544,461	544,461	-	-	544,461
Park Vista (1)	A-31	522,000	100%	522,000	442,348	-	221,174	221,174	442,348
Park Vista (2)	A-32	1,781,000	100%	1,781,000	1,509,239	-	754,619	754,619	1,509,239
Park Vista (3)	A-33	1,701,548	100%	1,701,548	1,441,910	1,441,910	-	-	1,441,910
Independence	A-34	10,147,000	100%	10,147,000	8,598,677	-	4,299,338	4,299,338	8,598,677
Beach		500,000	25%	125,000	26,625	-	13,313	13,313	26,625
US 377		200,000	25%	50,000	10,650	-	5,325	5,325	10,650
Eagle		200,000	100%	200,000	42,600	-	21,300	21,300	42,600
Henrietta Creek		1,500,000	100%	1,500,000	319,500	-	159,750	159,750	319,500
Henrietta Creek		1,000,000	100%	1,000,000	213,000	-	106,500	106,500	213,000
Litsey		1,000,000	100%	1,000,000	213,000	-	106,500	106,500	213,000
Westport		1,000,000	100%	1,000,000	213,000	-	106,500	106,500	213,000
Westport		2,500,000	100%	2,500,000	532,500	-	266,250	266,250	532,500
Westport		1,500,000	100%	1,500,000	319,500	-	159,750	159,750	319,500
Westport		2,500,000	100%	2,500,000	532,500	-	266,250	266,250	532,500
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 92,161,157		\$ 82,948,456	\$ 63,078,617	\$ 8,524,755	\$ 26,217,762	\$ 28,336,100	\$ 63,078,617

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
 Capital Improvement Plan for Impact Fees  
 Appendix E - Impact Fee Calculation Assumptions  
 Service Area A

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area A) <sup>(1)</sup>	34,446
Annual Growth in Vehicle Miles	<u>10</u> years 3,445

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 980,822	\$ 1,198,702	\$ 1,384,787	\$ 1,573,549	\$ 1,762,673	\$ 1,951,798	\$ 1,784,529	\$ 1,981,360	\$ 2,178,189	\$ 2,375,020	\$ 17,171,428
2017 Vehicle Miles plus Service Area A Growth	1,829,293	1,832,737	1,836,182	1,839,627	1,843,071	1,846,516	1,849,960	1,853,405	1,856,849	1,860,294	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.54	\$ 0.65	\$ 0.75	\$ 0.86	\$ 0.96	\$ 1.06	\$ 0.96	\$ 1.07	\$ 1.17	\$ 1.28	
Annual Growth in Service Area A Vehicle Miles (Cumulative)	3,445	6,889	10,334	13,778	17,223	20,667	24,112	27,556	31,001	34,446	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 1,847	\$ 4,506	\$ 7,793	\$ 11,785	\$ 16,472	\$ 21,846	\$ 23,259	\$ 29,459	\$ 36,366	\$ 43,976	\$ 197,309
Credit Amount	\$ 197,309										

(1) Line 8 of the Max Fee Table Report



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area AA

#### I. General Assumptions

Annual Interest Rate on Deposits(1)	0.65%
Annual Service Unit Growth(2)	5,002
Existing Fund Balance(3)	3,005,555
Portion of Projects Funded by Existing Debt(4)	\$ -
Non-debt Funded New Project Cost(5)	5,422,603
New Project Cost Funded Through New Debt(6)	5,398,828
Total Recoverable Project Cost(7)	\$ 10,821,430

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal(8)</u>	<u>Interest(9)</u>	<u>Term</u>
1	\$ 539,883	3.25%	20
2	539,883	4.25%	20
3	539,883	5.00%	20
4	539,883	5.00%	20
5	539,883	5.00%	20
6	539,883	5.00%	20
7	539,883	5.00%	20
8	539,883	5.00%	20
9	539,883	5.00%	20
10	539,883	5.00%	20
Total	\$ 5,398,828		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 811,607
2	1,082,143
3	1,082,143
4	1,082,143
5	1,082,143
6	1,082,143
7	1,082,143
8	1,082,143
9	1,082,143
10	1,352,679
Total	\$ 10,821,430

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Not Applicable for this Area  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area AA

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 37,133	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 37,133
2	37,133	40,610	-	-	-	-	-	-	-	-	77,742
3	37,133	40,610	43,322	-	-	-	-	-	-	-	121,064
4	37,133	40,610	43,322	43,322	-	-	-	-	-	-	164,386
5	37,133	40,610	43,322	43,322	43,322	-	-	-	-	-	207,707
6	37,133	40,610	43,322	43,322	43,322	43,322	-	-	-	-	251,029
7	37,133	40,610	43,322	43,322	43,322	43,322	43,322	-	-	-	294,350
8	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	-	-	337,672
9	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	-	380,994
10	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
11	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
12	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
13	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
14	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
15	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
16	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
17	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
18	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
19	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
20	37,133	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	424,315
21	-	40,610	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	387,183
22	-	-	43,322	43,322	43,322	43,322	43,322	43,322	43,322	43,322	346,573
23	-	-	-	43,322	43,322	43,322	43,322	43,322	43,322	43,322	303,251
24	-	-	-	-	43,322	43,322	43,322	43,322	43,322	43,322	259,930
25	-	-	-	-	-	43,322	43,322	43,322	43,322	43,322	216,608
26	-	-	-	-	-	-	43,322	43,322	43,322	43,322	173,286
27	-	-	-	-	-	-	-	43,322	43,322	43,322	129,965
28	-	-	-	-	-	-	-	-	43,322	43,322	86,643
29	-	-	-	-	-	-	-	-	-	43,322	\$ 43,322
	\$ 742,651	\$ 812,198	\$ 866,432	\$ 866,432	\$ 866,432	\$ 866,432	\$ 866,432	\$ 866,432	\$ 866,432	\$ 866,432	\$ 8,486,303

City of Fort Worth - 2017 Transportation Impact Fee Study  
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Appendix E - Impact Fee Calculation Assumptions

II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 37,133	\$ 811,607	\$ (539,883)	\$ -	\$ (101)	\$ 308,756
2	77,742	1,082,143	(539,883)	-	(424)	619,579
3	121,064	1,082,143	(539,883)	-	(987)	662,337
4	164,386	1,082,143	(539,883)	-	(1,782)	704,864
5	207,707	1,082,143	(539,883)	-	(2,807)	747,161
6	251,029	1,082,143	(539,883)	-	(4,059)	789,230
7	294,350	1,082,143	(539,883)	-	(5,538)	831,072
8	337,672	1,082,143	(539,883)	-	(7,241)	872,691
9	380,994	1,082,143	(539,883)	-	(9,167)	914,087
10	424,315	1,352,679	(539,883)	-	(11,314)	1,225,797
11	424,315	-	-	-	-	424,315
12	424,315	-	-	-	-	424,315
13	424,315	-	-	-	-	424,315
14	424,315	-	-	-	-	424,315
15	424,315	-	-	-	-	424,315
16	424,315	-	-	-	-	424,315
17	424,315	-	-	-	-	424,315
18	424,315	-	-	-	-	424,315
19	424,315	-	-	-	-	424,315
20	424,315	-	-	-	-	424,315
21	387,183	-	-	-	-	387,183
22	346,573	-	-	-	-	346,573
23	303,251	-	-	-	-	303,251
24	259,930	-	-	-	-	259,930
25	216,608	-	-	-	-	216,608
26	173,286	-	-	-	-	173,286
27	129,965	-	-	-	-	129,965
28	86,643	-	-	-	-	86,643
29	43,322	-	-	-	-	43,322
	\$ 8,486,303	\$ 10,821,430	\$ (5,398,828)	\$ -	\$ (43,420)	\$ 13,865,485

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions

**III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>**

The projects related to this area have not been previously funded with debt.

**IV. Summary of Debt Financing**

Existing Debt Funded Project Costs <sup>(5)</sup>	-
-Less Principal PTD	-
Outstanding Debt Principal	-
New Project Costs Debt Principal <sup>(5)</sup>	5,398,828
<b>Principal Component</b>	<b>\$ 5,398,828</b>

(1) Appendix E - Service Area AA, Page 2

(2) Appendix E - Service Area AA, Page 1

(3) Not Applicable for this Area

(4) Appendix E - Service Area AA, Page 8

(5) Appendix E - Service Area AA, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area AA

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 3,005,555
1	\$ 205	5,002	\$ 1,024,082	\$ 308,756	\$ 715,326	21,861	3,742,742
2	205	5,002	1,024,082	619,579	404,503	25,642	4,172,887
3	205	5,002	1,024,082	662,337	361,744	28,299	4,562,931
4	205	5,002	1,024,082	704,864	319,218	30,697	4,912,845
5	205	5,002	1,024,082	747,161	276,921	32,833	5,222,599
6	205	5,002	1,024,082	789,230	234,852	34,710	5,492,161
7	205	5,002	1,024,082	831,072	193,009	36,326	5,721,497
8	205	5,002	1,024,082	872,691	151,391	37,682	5,910,569
9	205	5,002	1,024,082	914,087	109,995	38,776	6,059,340
10	205	5,002	1,024,082	1,225,797	(201,716)	38,730	5,896,355
11	-	-	-	424,315	(424,315)	36,947	5,508,987
12	-	-	-	424,315	(424,315)	34,429	5,119,101
13	-	-	-	424,315	(424,315)	31,895	4,726,681
14	-	-	-	424,315	(424,315)	29,344	4,331,711
15	-	-	-	424,315	(424,315)	26,777	3,934,172
16	-	-	-	424,315	(424,315)	24,193	3,534,050
17	-	-	-	424,315	(424,315)	21,592	3,131,328
18	-	-	-	424,315	(424,315)	18,975	2,725,987
19	-	-	-	424,315	(424,315)	16,340	2,318,012
20	-	-	-	424,315	(424,315)	13,688	1,907,385
21	-	-	-	387,183	(387,183)	11,140	1,531,342
22	-	-	-	346,573	(346,573)	8,827	1,193,596
23	-	-	-	303,251	(303,251)	6,773	897,118
24	-	-	-	259,930	(259,930)	4,986	642,175
25	-	-	-	216,608	(216,608)	3,470	429,037
26	-	-	-	173,286	(173,286)	2,226	257,977
27	-	-	-	129,965	(129,965)	1,254	129,266
28	-	-	-	86,643	(86,643)	559	43,182
29	-	-	-	43,322	(43,322)	140	0
			10,240,817	13,865,485		619,114	

City of Fort Worth - 2017 Transportation Impact Fee Study  
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Service Area AA

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	5,002	6,016	\$ 308,756	\$ 371,373
2	28	1.1950	1.0000	5,002	5,977	619,579	740,420
3	27	1.1873	1.0000	5,002	5,939	662,337	786,406
4	26	1.1797	1.0000	5,002	5,900	704,864	831,494
5	25	1.1720	1.0000	5,002	5,862	747,161	875,697
6	24	1.1645	1.0000	5,002	5,824	789,230	919,030
7	23	1.1569	1.0000	5,002	5,787	831,072	961,504
8	22	1.1495	1.0000	5,002	5,749	872,691	1,003,134
9	21	1.1420	1.0000	5,002	5,712	914,087	1,043,932
10	20	1.1347	1.0000	5,002	5,675	1,225,797	1,390,880
11	19	1.1273	1.0000	-	-	424,315	478,350
12	18	1.1201	1.0000	-	-	424,315	475,261
13	17	1.1128	1.0000	-	-	424,315	472,191
14	16	1.1056	1.0000	-	-	424,315	469,142
15	15	1.0985	1.0000	-	-	424,315	466,112
16	14	1.0914	1.0000	-	-	424,315	463,102
17	13	1.0844	1.0000	-	-	424,315	460,111
18	12	1.0774	1.0000	-	-	424,315	457,140
19	11	1.0704	1.0000	-	-	424,315	454,188
20	10	1.0635	1.0000	-	-	424,315	451,255
21	9	1.0566	1.0000	-	-	387,183	409,105
22	8	1.0498	1.0000	-	-	346,573	363,831
23	7	1.0430	1.0000	-	-	303,251	316,296
24	6	1.0363	1.0000	-	-	259,930	269,360
25	5	1.0296	1.0000	-	-	216,608	223,017
26	4	1.0229	1.0000	-	-	173,286	177,262
27	3	1.0163	1.0000	-	-	129,965	132,088
28	2	1.0098	1.0000	-	-	86,643	87,490
29	1	1.0033	1.0000	-	-	43,322	43,462
					58,442	13,865,485	15,592,634

Total Escalated Expense for Entire Period	\$ 15,592,634
Less Future Value of Initial Fund Balance	3,626,806
Net Escalated Expense for Entire Period	\$ 11,965,828
Total Escalated Service Units	58,442
<b>Impact Fee for Service Area AA</b>	<b>\$ 205</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area AA

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Eagle	AA-1	\$ 4,079,000	100%	\$ 4,079,000	\$ 3,167,424	\$ -	\$ 1,583,712	\$ 1,583,712	\$ 3,167,424
Intermodal	AA-2	2,804,000	100%	2,804,000	2,177,361	-	1,088,681	1,088,681	2,177,361
Keller Haslet (1)	AA-3, B-5	4,055,000	50%	2,027,500	1,574,394	-	787,197	787,197	1,574,394
Keller Haslet (2)	AA-4	668,000	100%	668,000	518,715	-	259,358	259,358	518,715
Keller Haslet (3)	AA-5	3,379,000	100%	3,379,000	2,623,860	-	1,311,930	1,311,930	2,623,860
Eagle		2,500,000	100%	2,500,000	557,500	-	278,750	278,750	557,500
Intermodal		800,000	100%	800,000	178,400	-	89,200	89,200	178,400
Roadway Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 18,308,775		\$ 16,281,275	\$ 10,821,430	\$ -	\$ 5,398,828	\$ 5,422,603	\$ 10,821,430

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area AA

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area AA) <sup>(1)</sup>	50,017
Annual Growth in Vehicle Miles	<u>10</u> years 5,002

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 37,133	\$ 77,742	\$ 121,064	\$ 164,386	\$ 207,707	\$ 251,029	\$ 294,350	\$ 337,672	\$ 380,994	\$ 424,315	\$ 2,296,392
2017 Vehicle Miles plus Service Area AA Growth	1,830,850	1,835,852	1,840,853	1,845,855	1,850,857	1,855,859	1,860,860	1,865,862	1,870,864	1,875,865	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.02	\$ 0.04	\$ 0.07	\$ 0.09	\$ 0.11	\$ 0.14	\$ 0.16	\$ 0.18	\$ 0.20	\$ 0.23	
Annual Growth in Service Area AA Vehicle Miles (Cumulative)	5,002	10,003	15,005	20,007	25,009	30,010	35,012	40,014	45,015	50,017	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 101	\$ 424	\$ 987	\$ 1,782	\$ 2,807	\$ 4,059	\$ 5,538	\$ 7,241	\$ 9,167	\$ 11,314	\$ 43,420
Credit Amount	\$ 43,420										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area B

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	2,612
Existing Fund Balance <sup>(3)</sup>	549,834
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 3,278,413
Non-debt Funded New Project Cost <sup>(5)</sup>	34,004,778
New Project Cost Funded Through New Debt <sup>(6)</sup>	33,981,003
Total Recoverable Project Cost <sup>(7)</sup>	\$ 71,264,194

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 3,398,100	3.25%	20
2	3,398,100	4.25%	20
3	3,398,100	5.00%	20
4	3,398,100	5.00%	20
5	3,398,100	5.00%	20
6	3,398,100	5.00%	20
7	3,398,100	5.00%	20
8	3,398,100	5.00%	20
9	3,398,100	5.00%	20
10	3,398,100	5.00%	20
Total	\$ 33,981,003		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 5,098,934
2	6,798,578
3	6,798,578
4	6,798,578
5	6,798,578
6	6,798,578
7	6,798,578
8	6,798,578
9	6,798,578
10	8,498,223
Total	\$ 67,985,781

- (1) Annual return as of 2017
- (2) Derived from the 10-year Growth Projections Report, Table 7
- (3) Balances provided by City Staff as of August 2017
- (4) Existing debt funded project costs from details provided by staff
- (5) Assumes 50% of new project costs funded through sources other than debt
- (6) Assumes 50% of new project costs funded through new debt issues
- (7) Line 15 of the Max Fee Table Report
- (8) Assumes new debt issued in equal annual amounts
- (9) Estimated interest cost provided by City Staff
- (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area B

### I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 233,718	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 233,718
2	233,718	255,605	-	-	-	-	-	-	-	-	489,322
3	233,718	255,605	272,672	-	-	-	-	-	-	-	761,994
4	233,718	255,605	272,672	272,672	-	-	-	-	-	-	1,034,667
5	233,718	255,605	272,672	272,672	272,672	-	-	-	-	-	1,307,339
6	233,718	255,605	272,672	272,672	272,672	272,672	-	-	-	-	1,580,012
7	233,718	255,605	272,672	272,672	272,672	272,672	272,672	-	-	-	1,852,684
8	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	-	-	2,125,356
9	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	-	2,398,029
10	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
11	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
12	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
13	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
14	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
15	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
16	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
17	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
18	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
19	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
20	233,718	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,670,701
21	-	255,605	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,436,983
22	-	-	272,672	272,672	272,672	272,672	272,672	272,672	272,672	272,672	2,181,379
23	-	-	-	272,672	272,672	272,672	272,672	272,672	272,672	272,672	1,908,707
24	-	-	-	-	272,672	272,672	272,672	272,672	272,672	272,672	1,636,034
25	-	-	-	-	-	272,672	272,672	272,672	272,672	272,672	1,363,362
26	-	-	-	-	-	-	272,672	272,672	272,672	272,672	1,090,689
27	-	-	-	-	-	-	-	272,672	272,672	272,672	818,017
28	-	-	-	-	-	-	-	-	272,672	272,672	545,345
29	-	-	-	-	-	-	-	-	-	272,672	272,672
	\$ 4,674,351	\$ 5,112,091	\$ 5,453,447	\$ 5,453,447	\$ 5,453,447	\$ 5,453,447	\$ 5,453,447	\$ 5,453,447	\$ 5,453,447	\$ 5,453,447	\$ 53,414,019

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 233,718	\$ 5,098,934	\$ (3,398,100)	\$ 240,694	\$ (678)	\$ 2,174,567
2	489,322	6,798,578	(3,398,100)	303,347	(2,262)	4,190,885
3	761,994	6,798,578	(3,398,100)	293,902	(4,512)	4,451,862
4	1,034,667	6,798,578	(3,398,100)	284,040	(7,503)	4,711,681
5	1,307,339	6,798,578	(3,398,100)	274,442	(11,234)	4,971,025
6	1,580,012	6,798,578	(3,398,100)	264,845	(15,701)	5,229,633
7	1,852,684	6,798,578	(3,398,100)	255,090	(20,899)	5,487,353
8	2,125,356	6,798,578	(3,398,100)	245,335	(26,825)	5,744,344
9	2,398,029	6,798,578	(3,398,100)	235,581	(33,478)	6,000,609
10	2,670,701	8,498,223	(3,398,100)	225,826	(40,854)	7,955,796
11	2,670,701	-	-	216,071	-	2,886,772
12	2,670,701	-	-	104,219	-	2,774,920
13	2,670,701	-	-	100,640	-	2,771,341
14	2,670,701	-	-	96,167	-	2,766,868
15	2,670,701	-	-	91,592	-	2,762,293
16	2,670,701	-	-	-	-	2,670,701
17	2,670,701	-	-	-	-	2,670,701
18	2,670,701	-	-	-	-	2,670,701
19	2,670,701	-	-	-	-	2,670,701
20	2,670,701	-	-	-	-	2,670,701
21	2,436,983	-	-	-	-	2,436,983
22	2,181,379	-	-	-	-	2,181,379
23	1,908,707	-	-	-	-	1,908,707
24	1,636,034	-	-	-	-	1,636,034
25	1,363,362	-	-	-	-	1,363,362
26	1,090,689	-	-	-	-	1,090,689
27	818,017	-	-	-	-	818,017
28	545,345	-	-	-	-	545,345
29	272,672	-	-	-	-	272,672
	\$ 53,414,019	\$ 67,985,781	\$ (33,981,003)	\$ 3,231,791	\$ (163,945)	\$ 90,486,643

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2008 GO</u>	<u>2012 GO</u>	<u>TOTAL</u>
2007			-
2008	-		-
2009	113,601		113,601
2010	35,540		35,540
2011	35,540		35,540
2012	35,540	-	35,540
2013	35,540	89,358	124,898
2014	35,540	89,358	124,898
2015	35,461	89,358	124,818
2016	35,461	89,463	124,923
2017	35,461	89,358	124,818
	<u>\$ 397,684</u>	<u>\$ 446,893</u>	<u>\$ 844,577</u>

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	3,278,413
-Less Principal PTD	<u>844,577</u>
Outstanding Debt Principal	2,433,836
New Project Costs Debt Principal(5)	<u>33,981,003</u>
<b>Principal Component</b>	<b>\$ 36,414,839</b>

(1) Appendix E - Service Area B, Page 2

(2) Appendix E - Service Area B, Page 1

(3) Existing debt funded project costs from details provided by staff

(4) Appendix E - Service Area B, Page 8

(5) Appendix E - Service Area B, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area B

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
<b>Initial</b>							\$ 549,834
<b>1</b>	\$ 3,316	2,612	\$ 8,661,546	\$ 2,174,567	\$ 6,486,979	24,657	7,061,469
<b>2</b>	3,316	2,612	8,661,546	4,190,885	4,470,660	60,429	11,592,559
<b>3</b>	3,316	2,612	8,661,546	4,451,862	4,209,684	89,033	15,891,276
<b>4</b>	3,316	2,612	8,661,546	4,711,681	3,949,865	116,130	19,957,272
<b>5</b>	3,316	2,612	8,661,546	4,971,025	3,690,521	141,716	23,789,509
<b>6</b>	3,316	2,612	8,661,546	5,229,633	3,431,912	165,786	27,387,207
<b>7</b>	3,316	2,612	8,661,546	5,487,353	3,174,193	188,333	30,749,732
<b>8</b>	3,316	2,612	8,661,546	5,744,344	2,917,202	209,354	33,876,288
<b>9</b>	3,316	2,612	8,661,546	6,000,609	2,660,937	228,844	36,766,069
<b>10</b>	3,316	2,612	8,661,546	7,955,796	705,750	241,273	37,713,092
<b>11</b>	-	-	-	2,886,772	(2,886,772)	235,753	35,062,073
<b>12</b>	-	-	-	2,774,920	(2,774,920)	218,885	32,506,039
<b>13</b>	-	-	-	2,771,341	(2,771,341)	202,282	29,936,980
<b>14</b>	-	-	-	2,766,868	(2,766,868)	185,598	27,355,710
<b>15</b>	-	-	-	2,762,293	(2,762,293)	168,835	24,762,252
<b>16</b>	-	-	-	2,670,701	(2,670,701)	152,275	22,243,826
<b>17</b>	-	-	-	2,670,701	(2,670,701)	135,905	19,709,030
<b>18</b>	-	-	-	2,670,701	(2,670,701)	119,429	17,157,758
<b>19</b>	-	-	-	2,670,701	(2,670,701)	102,846	14,589,903
<b>20</b>	-	-	-	2,670,701	(2,670,701)	86,155	12,005,356
<b>21</b>	-	-	-	2,436,983	(2,436,983)	70,115	9,638,487
<b>22</b>	-	-	-	2,181,379	(2,181,379)	55,561	7,512,669
<b>23</b>	-	-	-	1,908,707	(1,908,707)	42,629	5,646,592
<b>24</b>	-	-	-	1,636,034	(1,636,034)	31,386	4,041,943
<b>25</b>	-	-	-	1,363,362	(1,363,362)	21,842	2,700,423
<b>26</b>	-	-	-	1,090,689	(1,090,689)	14,008	1,623,742
<b>27</b>	-	-	-	818,017	(818,017)	7,896	813,620
<b>28</b>	-	-	-	545,345	(545,345)	3,516	271,792
<b>29</b>	-	-	-	272,672	(272,672)	880	-
			86,615,459	90,486,643		3,321,350	

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area B

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	2,612	3,142	\$ 2,174,567	\$ 2,615,579
2	28	1.1950	1.0000	2,612	3,122	4,190,885	5,008,261
3	27	1.1873	1.0000	2,612	3,101	4,451,862	5,285,780
4	26	1.1797	1.0000	2,612	3,081	4,711,681	5,558,140
5	25	1.1720	1.0000	2,612	3,061	4,971,025	5,826,206
6	24	1.1645	1.0000	2,612	3,042	5,229,633	6,089,720
7	23	1.1569	1.0000	2,612	3,022	5,487,353	6,348,560
8	22	1.1495	1.0000	2,612	3,003	5,744,344	6,602,965
9	21	1.1420	1.0000	2,612	2,983	6,000,609	6,852,990
10	20	1.1347	1.0000	2,612	2,964	7,955,796	9,027,232
11	19	1.1273	1.0000	-	-	2,886,772	3,254,391
12	18	1.1201	1.0000	-	-	2,774,920	3,108,092
13	17	1.1128	1.0000	-	-	2,771,341	3,084,037
14	16	1.1056	1.0000	-	-	2,766,868	3,059,175
15	15	1.0985	1.0000	-	-	2,762,293	3,034,392
16	14	1.0914	1.0000	-	-	2,670,701	2,914,832
17	13	1.0844	1.0000	-	-	2,670,701	2,896,008
18	12	1.0774	1.0000	-	-	2,670,701	2,877,306
19	11	1.0704	1.0000	-	-	2,670,701	2,858,724
20	10	1.0635	1.0000	-	-	2,670,701	2,840,262
21	9	1.0566	1.0000	-	-	2,436,983	2,574,969
22	8	1.0498	1.0000	-	-	2,181,379	2,290,007
23	7	1.0430	1.0000	-	-	1,908,707	1,990,815
24	6	1.0363	1.0000	-	-	1,636,034	1,695,393
25	5	1.0296	1.0000	-	-	1,363,362	1,403,704
26	4	1.0229	1.0000	-	-	1,090,689	1,115,711
27	3	1.0163	1.0000	-	-	818,017	831,379
28	2	1.0098	1.0000	-	-	545,345	550,673
29	1	1.0033	1.0000	-	-	272,672	273,559
						30,521	90,486,643
							101,868,862

Total Escalated Expense for Entire Period	\$ 101,868,862
Less Future Value of Initial Fund Balance	663,485
Net Escalated Expense for Entire Period	\$ 101,205,377
Total Escalated Service Units	30,521
<b>Impact Fee for Service Area B</b>	<b>\$ 3,316</b>



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### Service Area B

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Eagle (1)	B-1	\$ 6,689,000	50%	\$ 3,344,500	\$ 1,912,120	\$ -	\$ 956,060	\$ 956,060	\$ 1,912,120
Eagle (2)	B-2	6,816,000	50%	3,408,000	1,948,425	-	974,212	974,212	1,948,425
Rancho Canyon (1)	B-3	12,007,000	100%	12,007,000	6,864,652	-	3,432,326	3,432,326	6,864,652
Rancho Canyon (2)	B-4	1,436,000	100%	1,436,000	820,991	-	410,496	410,496	820,991
Keller Haslet (1)	AA-3, B-5	4,055,000	50%	2,027,500	1,159,164	-	579,582	579,582	1,159,164
Avondale Haslet (1)	B-6	2,004,784	100%	2,004,784	1,146,177	1,146,177	-	-	1,146,177
Avondale Haslet (2)	B-7	3,007,176	100%	3,007,176	1,719,265	1,719,265	-	-	1,719,265
Avondale Haslet (3)	B-8	2,488,000	100%	2,488,000	1,422,441	412,971	504,735	504,735	1,422,441
Avondale Haslet (4)	B-9	4,232,000	100%	4,232,000	2,419,523	-	1,209,761	1,209,761	2,419,523
Avondale Haslet (5)	B-10	1,362,000	100%	1,362,000	778,684	-	389,342	389,342	778,684
Avondale Haslet (6)	B-11	4,815,000	100%	4,815,000	2,752,836	-	1,376,418	1,376,418	2,752,836
Blue Mound (1)	B-12	9,667,000	100%	9,667,000	5,526,825	-	2,763,413	2,763,413	5,526,825
Blue Mound (2)	B-13	2,572,000	100%	2,572,000	1,470,466	-	735,233	735,233	1,470,466
Blue Mound (3)	B-14	4,710,000	100%	4,710,000	2,692,805	-	1,346,403	1,346,403	2,692,805
Willow Springs (1)	B-15	2,310,000	100%	2,310,000	1,320,675	-	660,338	660,338	1,320,675
Willow Springs (2)	B-16	3,588,000	100%	3,588,000	2,051,334	-	1,025,667	1,025,667	2,051,334
Willow Springs (3)	B-17	4,761,000	100%	4,761,000	2,721,963	-	1,360,981	1,360,981	2,721,963
Willow Springs (4)	B-18	4,605,000	100%	4,605,000	2,632,774	-	1,316,387	1,316,387	2,632,774
Willow Springs (5)	B-19	6,627,000	100%	6,627,000	3,788,794	-	1,894,397	1,894,397	3,788,794
Sendera Ranch (1)	B-20	7,315,000	100%	7,315,000	4,182,138	-	2,091,069	2,091,069	4,182,138
Sendera Ranch (2)	B-21	4,209,000	50%	2,104,500	1,203,186	-	601,593	601,593	1,203,186
Sendera Ranch (3)	B-22	193,000	100%	193,000	110,342	-	55,171	55,171	110,342
Sendera Ranch (4)	B-23	2,159,000	100%	2,159,000	1,234,345	-	617,173	617,173	1,234,345
Sendera Ranch (5)	B-24	3,421,000	100%	3,421,000	1,955,857	-	977,928	977,928	1,955,857
Wagley Robertson (1)	B-25	7,378,000	100%	7,378,000	4,218,156	-	2,109,078	2,109,078	4,218,156
Wagley Robertson (2)	B-26	4,643,000	100%	4,643,000	2,654,500	-	1,327,250	1,327,250	2,654,500
Wagley Robertson (3)	B-27, C-21	1,407,000	50%	703,500	402,206	-	201,103	201,103	402,206
John Day (1)	B-28	567,000	100%	567,000	324,166	-	162,083	162,083	324,166
John Day (2)	B-29	2,207,000	100%	2,207,000	1,261,788	-	630,894	630,894	1,261,788
John Day (3)	B-30	2,946,000	100%	2,946,000	1,684,290	-	842,145	842,145	1,684,290
John Day (4)	B-31	3,012,000	100%	3,012,000	1,722,023	-	861,012	861,012	1,722,023
John Day (5)	B-32	1,496,000	100%	1,496,000	855,294	-	427,647	427,647	855,294
John Day (6)	B-33	8,804,000	50%	4,402,000	2,516,715	-	1,258,358	1,258,358	2,516,715
Avondale Haslet		1,500,000	100%	1,500,000	198,000	-	99,000	99,000	198,000
Avondale Haslet		1,500,000	100%	1,500,000	198,000	-	99,000	99,000	198,000
Blue Mound		1,500,000	75%	1,125,000	148,500	-	74,250	74,250	148,500
Blue Mound		1,500,000	100%	1,500,000	198,000	-	99,000	99,000	198,000
Diamondback		2,500,000	100%	2,500,000	330,000	-	165,000	165,000	330,000
Eagle		1,000,000	50%	500,000	66,000	-	33,000	33,000	66,000
Keller Haslet		1,500,000	100%	1,500,000	198,000	-	99,000	99,000	198,000
Rancho Canyon		1,000,000	100%	1,000,000	132,000	-	66,000	66,000	132,000
Rancho Canyon		1,000,000	75%	750,000	99,000	-	49,500	49,500	99,000
Sendera Ranch		1,500,000	100%	1,500,000	198,000	-	99,000	99,000	198,000
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 152,032,734		\$ 134,917,734	\$ 71,264,194	#####	\$ 33,981,003	\$ 34,004,778	\$ 71,264,194

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area B

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area B) <sup>(1)</sup>	26,121
Annual Growth in Vehicle Miles	<u>10</u> years 2,612

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 474,412	\$ 792,669	\$ 1,055,896	\$ 1,318,706	\$ 1,581,781	\$ 1,844,857	\$ 2,107,774	\$ 2,370,692	\$ 2,633,609	\$ 2,896,527	\$ 17,076,923
2017 Vehicle Miles plus Service Area B Growth	1,828,460	1,831,072	1,833,685	1,836,297	1,838,909	1,841,521	1,844,133	1,846,745	1,849,357	1,851,969	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.26	\$ 0.43	\$ 0.58	\$ 0.72	\$ 0.86	\$ 1.00	\$ 1.14	\$ 1.28	\$ 1.42	\$ 1.56	
Annual Growth in Service Area B Vehicle Miles (Cumulative)	2,612	5,224	7,836	10,448	13,060	15,672	18,285	20,897	23,509	26,121	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 678	\$ 2,262	\$ 4,512	\$ 7,503	\$ 11,234	\$ 15,701	\$ 20,899	\$ 26,825	\$ 33,478	\$ 40,854	\$ 163,945
Credit Amount	\$ 163,945										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area C

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	8,543
Existing Fund Balance <sup>(3)</sup>	6,405,472
Portion of Projects Funded by Existing Debt <sup>(3)</sup>	\$ -
Non-debt Funded New Project Cost <sup>(4)</sup>	42,510,351
New Project Cost Funded Through New Debt <sup>(5)</sup>	42,269,922
Total Recoverable Project Cost <sup>(6)</sup>	\$ 84,780,273

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(7)</sup></u>	<u>Interest<sup>(8)</sup></u>	<u>Term</u>
1	\$ 4,226,992	3.25%	20
2	4,226,992	4.25%	20
3	4,226,992	5.00%	20
4	4,226,992	5.00%	20
5	4,226,992	5.00%	20
6	4,226,992	5.00%	20
7	4,226,992	5.00%	20
8	4,226,992	5.00%	20
9	4,226,992	5.00%	20
10	4,226,992	5.00%	20
Total	\$ 42,235,257		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(9)</sup></u>
1	\$ 6,358,520
2	8,478,027
3	8,478,027
4	8,478,027
5	8,478,027
6	8,478,027
7	8,478,027
8	8,478,027
9	8,478,027
10	10,597,534
Total	\$ 84,780,273

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Not Applicable for this Area  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area C

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 290,728	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 290,728
2	290,728	317,954	-	-	-	-	-	-	-	-	608,681
3	290,728	317,954	339,185	-	-	-	-	-	-	-	947,866
4	290,728	317,954	339,185	339,185	-	-	-	-	-	-	1,287,051
5	290,728	317,954	339,185	339,185	339,185	-	-	-	-	-	1,626,236
6	290,728	317,954	339,185	339,185	339,185	339,185	-	-	-	-	1,965,421
7	290,728	317,954	339,185	339,185	339,185	339,185	339,185	-	-	-	2,304,605
8	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	-	-	2,643,790
9	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	-	2,982,975
10	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
11	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
12	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
13	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
14	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
15	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
16	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
17	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
18	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
19	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
20	290,728	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,322,160
21	-	317,954	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	3,031,432
22	-	-	339,185	339,185	339,185	339,185	339,185	339,185	339,185	339,185	2,713,478
23	-	-	-	339,185	339,185	339,185	339,185	339,185	339,185	339,185	2,374,294
24	-	-	-	-	339,185	339,185	339,185	339,185	339,185	339,185	2,035,109
25	-	-	-	-	-	339,185	339,185	339,185	339,185	339,185	1,695,924
26	-	-	-	-	-	-	339,185	339,185	339,185	339,185	1,356,739
27	-	-	-	-	-	-	-	339,185	339,185	339,185	1,017,554
28	-	-	-	-	-	-	-	-	339,185	339,185	678,370
29	-	-	-	-	-	-	-	-	-	339,185	339,185
	\$ 5,814,556	\$ 6,359,073	\$ 6,783,696	\$ 6,783,696	\$ 6,783,696	\$ 6,783,696	\$ 6,783,696	\$ 6,783,696	\$ 6,783,696	\$ 6,783,696	\$ 66,443,195

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II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 290,728	\$ 6,358,520	\$ (4,226,992)	\$ -	\$ (1,354)	\$ 2,420,902
2	608,681	8,478,027	(4,226,992)	-	(5,643)	4,854,073
3	947,866	8,478,027	(4,226,992)	-	(13,121)	5,185,780
4	1,287,051	8,478,027	(4,226,992)	-	(23,646)	5,514,440
5	1,626,236	8,478,027	(4,226,992)	-	(37,177)	5,840,094
6	1,965,421	8,478,027	(4,226,992)	-	(53,671)	6,162,784
7	2,304,605	8,478,027	(4,226,992)	-	(73,090)	6,482,551
8	2,643,790	8,478,027	(4,226,992)	-	(95,393)	6,799,432
9	2,982,975	8,478,027	(4,226,992)	-	(120,542)	7,113,468
10	3,322,160	10,597,534	(4,226,992)	-	(148,498)	9,544,204
11	3,322,160	-	-	-	-	3,322,160
12	3,322,160	-	-	-	-	3,322,160
13	3,322,160	-	-	-	-	3,322,160
14	3,322,160	-	-	-	-	3,322,160
15	3,322,160	-	-	-	-	3,322,160
16	3,322,160	-	-	-	-	3,322,160
17	3,322,160	-	-	-	-	3,322,160
18	3,322,160	-	-	-	-	3,322,160
19	3,322,160	-	-	-	-	3,322,160
20	3,322,160	-	-	-	-	3,322,160
21	3,031,432	-	-	-	-	3,031,432
22	2,713,478	-	-	-	-	2,713,478
23	2,374,294	-	-	-	-	2,374,294
24	2,035,109	-	-	-	-	2,035,109
25	1,695,924	-	-	-	-	1,695,924
26	1,356,739	-	-	-	-	1,356,739
27	1,017,554	-	-	-	-	1,017,554
28	678,370	-	-	-	-	678,370
29	339,185	-	-	-	-	339,185
	\$ 66,443,195	\$ 84,780,273	\$ (42,269,922)	\$ -	\$ (572,136)	\$ 108,381,411

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**III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>**

The projects related to this area have not been previously funded with debt.

**IV. Summary of Debt Financing**

Existing Debt Funded Project Costs <sup>(5)</sup>	-
-Less Principal PTD	-
Outstanding Debt Principal	-
New Project Costs Debt Principal <sup>(5)</sup>	42,269,922
<b>Principal Component</b>	<b>\$ 42,269,922</b>

(1) Appendix E - Service Area C, Page 2

(2) Appendix E - Service Area C, Page 1

(3) Not Applicable for this Area

(4) Appendix E - Service Area C, Page 8

(5) Appendix E - Service Area C, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area C

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 6,405,472
1	\$ 1,144	8,543	\$ 9,769,280	\$ 2,420,902	\$ 7,348,378	65,518	13,819,368
2	1,144	8,543	9,769,280	4,854,073	4,915,207	105,800	18,840,375
3	1,144	8,543	9,769,280	5,185,780	4,583,500	137,359	23,561,234
4	1,144	8,543	9,769,280	5,514,440	4,254,840	166,976	27,983,050
5	1,144	8,543	9,769,280	5,840,094	3,929,186	194,660	32,106,895
6	1,144	8,543	9,769,280	6,162,784	3,606,496	220,416	35,933,807
7	1,144	8,543	9,769,280	6,482,551	3,286,730	244,252	39,464,788
8	1,144	8,543	9,769,280	6,799,432	2,969,848	266,173	42,700,809
9	1,144	8,543	9,769,280	7,113,468	2,655,812	286,187	45,642,808
10	1,144	8,543	9,769,280	9,544,204	225,076	297,410	46,165,294
11	-	-	-	3,322,160	(3,322,160)	289,277	43,132,411
12	-	-	-	3,322,160	(3,322,160)	269,564	40,079,815
13	-	-	-	3,322,160	(3,322,160)	249,722	37,007,377
14	-	-	-	3,322,160	(3,322,160)	229,751	33,914,968
15	-	-	-	3,322,160	(3,322,160)	209,650	30,802,459
16	-	-	-	3,322,160	(3,322,160)	189,419	27,669,718
17	-	-	-	3,322,160	(3,322,160)	169,056	24,516,615
18	-	-	-	3,322,160	(3,322,160)	148,561	21,343,016
19	-	-	-	3,322,160	(3,322,160)	127,933	18,148,789
20	-	-	-	3,322,160	(3,322,160)	107,170	14,933,799
21	-	-	-	3,031,432	(3,031,432)	87,218	11,989,584
22	-	-	-	2,713,478	(2,713,478)	69,113	9,345,220
23	-	-	-	2,374,294	(2,374,294)	53,027	7,023,954
24	-	-	-	2,035,109	(2,035,109)	39,042	5,027,887
25	-	-	-	1,695,924	(1,695,924)	27,170	3,359,132
26	-	-	-	1,356,739	(1,356,739)	17,425	2,019,818
27	-	-	-	1,017,554	(1,017,554)	9,822	1,012,085
28	-	-	-	678,370	(678,370)	4,374	338,090
29	-	-	-	339,185	(339,185)	1,095	0
			97,692,801	108,381,411		4,283,138	



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<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	8,543	10,276	\$ 2,420,902	\$ 2,911,872
2	28	1.1950	1.0000	8,543	10,210	4,854,073	5,800,795
3	27	1.1873	1.0000	8,543	10,144	5,185,780	6,157,175
4	26	1.1797	1.0000	8,543	10,078	5,514,440	6,505,116
5	25	1.1720	1.0000	8,543	10,013	5,840,094	6,844,784
6	24	1.1645	1.0000	8,543	9,948	6,162,784	7,176,341
7	23	1.1569	1.0000	8,543	9,884	6,482,551	7,499,947
8	22	1.1495	1.0000	8,543	9,820	6,799,432	7,815,759
9	21	1.1420	1.0000	8,543	9,757	7,113,468	8,123,930
10	20	1.1347	1.0000	8,543	9,694	7,428,204	8,429,557
11	19	1.1273	1.0000	-	-	3,322,160	3,745,223
12	18	1.1201	1.0000	-	-	3,322,160	3,721,036
13	17	1.1128	1.0000	-	-	3,322,160	3,697,006
14	16	1.1056	1.0000	-	-	3,322,160	3,673,131
15	15	1.0985	1.0000	-	-	3,322,160	3,649,409
16	14	1.0914	1.0000	-	-	3,322,160	3,625,841
17	13	1.0844	1.0000	-	-	3,322,160	3,602,426
18	12	1.0774	1.0000	-	-	3,322,160	3,579,161
19	11	1.0704	1.0000	-	-	3,322,160	3,556,047
20	10	1.0635	1.0000	-	-	3,322,160	3,533,082
21	9	1.0566	1.0000	-	-	3,031,432	3,203,076
22	8	1.0498	1.0000	-	-	2,713,478	2,848,603
23	7	1.0430	1.0000	-	-	2,374,294	2,476,431
24	6	1.0363	1.0000	-	-	2,035,109	2,108,947
25	5	1.0296	1.0000	-	-	1,695,924	1,746,106
26	4	1.0229	1.0000	-	-	1,356,739	1,387,864
27	3	1.0163	1.0000	-	-	1,017,554	1,034,176
28	2	1.0098	1.0000	-	-	678,370	684,998
29	1	1.0033	1.0000	-	-	339,185	340,287
					99,824	108,381,411	121,878,127

Total Escalated Expense for Entire Period	\$ 121,878,127
Less Future Value of Initial Fund Balance	7,729,488
Net Escalated Expense for Entire Period	\$ 114,148,639
Total Escalated Service Units	99,824
<b>Impact Fee for Service Area C</b>	<b>\$ 1,144</b>

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<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Keller Hicks (1)	C-1	\$ 1,719,000	50%	\$ 859,500	\$ 652,240	\$ -	\$ 326,120	\$ 326,120	\$ 652,240
Keller Hicks (2)	C-2	2,354,000	50%	1,177,000	893,178	-	446,589	446,589	893,178
Bonds Ranch (1)	C-3	888,000	50%	444,000	336,934	-	168,467	168,467	336,934
Bonds Ranch (2)	C-4	8,790,000	100%	8,790,000	6,670,379	-	3,335,190	3,335,190	6,670,379
Bonds Ranch (3)	C-5	4,026,000	100%	4,026,000	3,055,170	-	1,527,585	1,527,585	3,055,170
Bonds Ranch (4)	C-6	7,515,000	100%	7,515,000	5,702,833	-	2,851,416	2,851,416	5,702,833
Golden Triangle (1)	C-7	1,181,000	100%	1,181,000	896,214	-	448,107	448,107	896,214
Golden Triangle (2)	C-8	863,000	100%	863,000	654,896	-	327,448	327,448	654,896
Golden Triangle (3)	C-9	943,000	100%	943,000	715,605	-	357,802	357,802	715,605
Golden Triangle (4)	C-10	2,531,000	100%	2,531,000	1,920,675	-	960,337	960,337	1,920,675
Heritage Trace (6)	C-11	677,000	100%	677,000	513,748	-	256,874	256,874	513,748
Heritage Trace (7)	C-12	10,508,000	100%	10,508,000	7,974,101	-	3,987,050	3,987,050	7,974,101
Heritage Trace (8)	C-13	658,000	100%	658,000	499,330	-	249,665	249,665	499,330
Heritage Trace (9)	C-14	6,290,000	100%	6,290,000	4,773,229	-	2,386,615	2,386,615	4,773,229
Heritage Trace (10)	C-15	4,612,000	100%	4,612,000	3,499,862	-	1,749,931	1,749,931	3,499,862
Heritage Trace (11)	C-16	724,000	100%	724,000	549,415	-	274,707	274,707	549,415
N. Tarrant (1)	C-17	5,482,000	100%	5,482,000	4,160,070	-	2,080,035	2,080,035	4,160,070
N. Tarrant (2)	C-18	640,000	100%	640,000	485,670	-	242,835	242,835	485,670
Bailey Boswell (4)	C-19	7,450,000	100%	7,450,000	5,653,507	-	2,826,753	2,826,753	5,653,507
Basswood	C-20, F-1	571,000	50%	285,500	216,655	-	-	216,655	216,655
Wagley Robertson (3)	C-21, B-27	5,757,000	50%	2,878,500	2,184,378	-	1,092,189	1,092,189	2,184,378
Wagley Robertson (4)	C-22	405,000	100%	405,000	307,338	-	153,669	153,669	307,338
Wagley Robertson (5)	C-23	1,501,000	100%	1,501,000	1,139,049	-	569,524	569,524	1,139,049
Wagley Robertson (6)	C-24, E-17	4,748,000	50%	2,374,000	1,801,534	-	900,767	900,767	1,801,534
Wagley Robertson (7)	C-25	1,040,000	100%	1,040,000	789,214	-	394,607	394,607	789,214
Wagley Robertson (8)	C-26	1,575,000	100%	1,575,000	1,195,204	-	597,602	597,602	1,195,204
Wagley Robertson (9)	C-27, E-18	878,000	50%	439,000	333,140	-	166,570	166,570	333,140
Harmon (1)	C-28	2,749,000	100%	2,749,000	2,086,106	-	1,043,053	1,043,053	2,086,106
Harmon (2)	C-29	902,000	50%	451,000	342,246	-	171,123	171,123	342,246
Harmon (3)	C-30	712,000	100%	712,000	540,308	-	270,154	270,154	540,308
Harmon (4)	C-31	2,407,000	100%	2,407,000	1,826,576	-	913,288	913,288	1,826,576
Harmon (5)	C-32	7,846,000	100%	7,846,000	5,954,015	-	2,977,008	2,977,008	5,954,015
Harmon (6)	C-33	5,500,000	100%	5,500,000	4,173,730	-	2,086,865	2,086,865	4,173,730
Harmon (7)	C-34	1,140,000	100%	1,140,000	865,100	-	432,550	432,550	865,100
Harmon (8)	C-35	477,000	100%	477,000	361,976	-	180,988	180,988	361,976
Bailey Boswell (5)	C-36	6,499,000	100%	6,499,000	4,931,831	-	2,465,916	2,465,916	4,931,831
Bailey Boswell		600,000	50%	300,000	158,400	-	79,200	79,200	158,400
Bonds Ranch		600,000	75%	450,000	237,600	-	118,800	118,800	237,600
Bonds Ranch		1,500,000	75%	1,125,000	594,000	-	297,000	297,000	594,000
Golden Triangle		1,000,000	100%	1,000,000	528,000	-	264,000	264,000	528,000
Harmon		180,000	100%	180,000	95,040	-	47,520	47,520	95,040
Harmon		1,000,000	100%	1,000,000	528,000	-	264,000	264,000	528,000
Harmon		1,000,000	100%	1,000,000	528,000	-	264,000	264,000	528,000
Harmon		1,000,000	100%	1,000,000	528,000	-	264,000	264,000	528,000
Heritage Trace		1,500,000	100%	1,500,000	792,000	-	396,000	396,000	792,000
Heritage Trace		1,000,000	100%	1,000,000	528,000	-	264,000	264,000	528,000
Heritage Trace		1,000,000	100%	1,000,000	528,000	-	264,000	264,000	528,000
N. Tarrant		1,000,000	100%	1,000,000	528,000	-	264,000	264,000	528,000
N. Tarrant		1,000,000	100%	1,000,000	528,000	-	264,000	264,000	528,000
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 124,961,775		\$ 115,228,275	\$ 84,780,273	\$ -	\$ 42,269,922	\$ 42,510,351	\$ 84,780,273

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area C

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area C) <sup>(1)</sup>	85,433
Annual Growth in Vehicle Miles	<u>10</u> years 8,543

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 290,728	\$ 608,681	\$ 947,866	\$ 1,287,051	\$ 1,626,236	\$ 1,965,421	\$ 2,304,605	\$ 2,643,790	\$ 2,982,975	\$ 3,322,160	\$ 17,979,513
2017 Vehicle Miles plus Service Area C Growth	1,834,392	1,842,935	1,851,478	1,860,021	1,868,565	1,877,108	1,885,651	1,894,195	1,902,738	1,911,281	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.16	\$ 0.33	\$ 0.51	\$ 0.69	\$ 0.87	\$ 1.05	\$ 1.22	\$ 1.40	\$ 1.57	\$ 1.74	
Annual Growth in Service Area C Vehicle Miles (Cumulative)	8,543	17,087	25,630	34,173	42,716	51,260	59,803	68,346	76,890	85,433	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 1,354	\$ 5,643	\$ 13,121	\$ 23,646	\$ 37,177	\$ 53,671	\$ 73,090	\$ 95,393	\$ 120,542	\$ 148,498	\$ 572,136
Credit Amount	\$ 572,136										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area D

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	9,686
Existing Fund Balance <sup>(3)</sup>	8,931,787
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 17,635,362
Non-debt Funded New Project Cost <sup>(5)</sup>	19,969,612
New Project Cost Funded Through New Debt <sup>(6)</sup>	14,942,226
Total Recoverable Project Cost <sup>(7)</sup>	\$ 52,547,200

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 1,494,223	3.25%	20
2	1,494,223	4.25%	20
3	1,494,223	5.00%	20
4	1,494,223	5.00%	20
5	1,494,223	5.00%	20
6	1,494,223	5.00%	20
7	1,494,223	5.00%	20
8	1,494,223	5.00%	20
9	1,494,223	5.00%	20
10	1,494,223	5.00%	20
Total	\$ 14,942,226		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 2,618,388
2	3,491,184
3	3,491,184
4	3,491,184
5	3,491,184
6	3,491,184
7	3,491,184
8	3,491,184
9	3,491,184
10	4,363,980
Total	\$ 34,911,838

- (1) Annual return as of 2017
- (2) Derived from the 10-year Growth Projections Report, Table 7
- (3) Balances provided by City Staff as of August 2017
- (4) Existing debt funded project costs from details provided by staff
- (5) Assumes 50% of new project costs funded through sources other than debt
- (6) Assumes 50% of new project costs funded through new debt issues
- (7) Line 15 of the Max Fee Table Report
- (8) Assumes new debt issued in equal annual amounts
- (9) Estimated interest cost provided by City Staff
- (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area D

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 102,771	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 102,771
2	102,771	112,395	-	-	-	-	-	-	-	-	215,166
3	102,771	112,395	119,900	-	-	-	-	-	-	-	335,066
4	102,771	112,395	119,900	119,900	-	-	-	-	-	-	454,967
5	102,771	112,395	119,900	119,900	119,900	-	-	-	-	-	574,867
6	102,771	112,395	119,900	119,900	119,900	119,900	-	-	-	-	694,767
7	102,771	112,395	119,900	119,900	119,900	119,900	119,900	-	-	-	814,668
8	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	-	-	934,568
9	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	-	1,054,468
10	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
11	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
12	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
13	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
14	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
15	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
16	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
17	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
18	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
19	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
20	102,771	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,174,368
21	-	112,395	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	1,071,598
22	-	-	119,900	119,900	119,900	119,900	119,900	119,900	119,900	119,900	959,202
23	-	-	-	119,900	119,900	119,900	119,900	119,900	119,900	119,900	839,302
24	-	-	-	-	119,900	119,900	119,900	119,900	119,900	119,900	719,402
25	-	-	-	-	-	119,900	119,900	119,900	119,900	119,900	599,501
26	-	-	-	-	-	-	119,900	119,900	119,900	119,900	479,601
27	-	-	-	-	-	-	-	119,900	119,900	119,900	359,701
28	-	-	-	-	-	-	-	-	119,900	119,900	239,801
29	-	-	-	-	-	-	-	-	-	119,900	119,900
	\$ 2,055,419	\$ 2,247,904	\$ 2,398,006	\$ 2,398,006	\$ 2,398,006	\$ 2,398,006	\$ 2,398,006	\$ 2,398,006	\$ 2,398,006	\$ 2,398,006	\$ 23,487,369

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 102,771	\$ 2,618,388	\$ (1,494,223)	\$ 1,335,894	\$ (7,591)	\$ 2,555,238
2	215,166	3,491,184	(1,494,223)	1,289,560	(15,797)	3,485,891
3	335,066	3,491,184	(1,494,223)	1,146,791	(23,213)	3,455,605
4	454,967	3,491,184	(1,494,223)	1,110,540	(32,528)	3,529,939
5	574,867	3,491,184	(1,494,223)	1,074,734	(42,623)	3,603,940
6	694,767	3,491,184	(1,494,223)	1,048,087	(53,761)	3,686,055
7	814,668	3,491,184	(1,494,223)	892,253	(61,114)	3,642,768
8	934,568	3,491,184	(1,494,223)	859,536	(73,038)	3,718,027
9	1,054,468	3,491,184	(1,494,223)	827,090	(85,737)	3,792,782
10	1,174,368	4,363,980	(1,494,223)	777,756	(98,338)	4,723,543
11	1,174,368	-	-	655,833	-	1,830,201
12	1,174,368	-	-	413,288	-	1,587,656
13	1,174,368	-	-	318,649	-	1,493,017
14	1,174,368	-	-	307,204	-	1,481,572
15	1,174,368	-	-	295,730	-	1,470,099
16	1,174,368	-	-	88,241	-	1,262,609
17	1,174,368	-	-	62,174	-	1,236,542
18	1,174,368	-	-	60,167	-	1,234,535
19	1,174,368	-	-	32,323	-	1,206,692
20	1,174,368	-	-	-	-	1,174,368
21	1,071,598	-	-	-	-	1,071,598
22	959,202	-	-	-	-	959,202
23	839,302	-	-	-	-	839,302
24	719,402	-	-	-	-	719,402
25	599,501	-	-	-	-	599,501
26	479,601	-	-	-	-	479,601
27	359,701	-	-	-	-	359,701
28	239,801	-	-	-	-	239,801
29	119,900	-	-	-	-	119,900
	\$ 23,487,369	\$ 34,911,838	\$ (14,942,226)	\$ 12,595,850	\$ (493,742)	\$ 55,559,090

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2007 GO</u>	<u>2007 CO</u>	<u>2007A GO</u>	<u>2008 GO</u>	<u>2008 CO</u>	<u>2009 GO</u>	<u>2009 CO</u>	<u>2012 GO</u>	<u>2012 CO</u>
2007	-	-	-						
2008	9,179	25,434	281,237	-	-				
2009	9,179	25,434	188,392	211,705	356,219	-	-		
2010	9,179	25,434	188,392	66,232	111,184	126,480	180,901		
2011	9,179	25,434	188,392	66,232	111,184	126,480	97,635		
2012	9,179	25,434	188,392	66,232	111,184	126,480	97,635	-	-
2013	9,179	25,434	188,392	66,232	111,184	126,480	97,635	144,559	61,339
2014	9,179	25,434	188,392	66,232	111,184	126,480	97,635	144,559	61,476
2015	9,179	25,434	188,392	66,084	111,184	126,480	97,501	144,559	61,408
2016	9,179	25,434	188,392	66,084	111,184	126,480	97,501	144,729	61,408
2017	9,179	25,434	188,392	66,084	111,184	126,480	64,061	144,559	61,476
	\$ 91,790	\$ 254,338	\$ 1,976,767	\$ 741,117	\$ 1,245,690	\$ 1,011,839	\$ 830,506	\$ 722,966	\$ 307,107

	<u>2013A CO</u>	<u>2014 GO</u>	<u>2015A GO</u>	<u>2016 GO</u>	<u>TOTAL</u>
2007					-
2008					315,850
2009					790,929
2010					707,802
2011					624,536
2012					624,536
2013	-				830,434
2014	1,412	-			831,984
2015	1,300	121,512	-		953,033
2016	1,300	121,512	159,174	-	1,112,377
2017	1,300	121,512	44,070	96,840	1,060,571
	\$ 5,312	\$ 364,537	\$ 203,244	\$ 96,840	\$ 7,852,053

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	17,635,362
-Less Principal PTD	7,852,053
Outstanding Debt Principal	9,783,309
New Project Costs Debt Principal(5)	14,942,226
<b>Principal Component</b>	<b>\$ 24,725,536</b>

(1) Appendix E - Service Area D, Page 2

(2) Appendix E - Service Area D, Page 1

(3) Existing debt funded project costs from details provided by staff

(4) Appendix E - Service Area D, Page 8

(5) Appendix E - Service Area D, Page 1



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area D

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 8,931,787
1	\$ 463	9,686	\$ 4,481,637	\$ 2,555,238	\$ 1,926,398	64,317	10,922,503
2	463	9,686	4,481,637	3,485,891	995,746	74,232	11,992,481
3	463	9,686	4,481,637	3,455,605	1,026,031	81,286	13,099,798
4	463	9,686	4,481,637	3,529,939	951,697	88,242	14,139,737
5	463	9,686	4,481,637	3,603,940	877,697	94,761	15,112,195
6	463	9,686	4,481,637	3,686,055	795,582	100,815	16,008,592
7	463	9,686	4,481,637	3,642,768	838,869	106,782	16,954,243
8	463	9,686	4,481,637	3,718,027	763,610	112,684	17,830,537
9	463	9,686	4,481,637	3,792,782	688,854	118,137	18,637,529
10	463	9,686	4,481,637	4,723,543	(241,906)	120,358	18,515,980
11	-	-	-	1,830,201	(1,830,201)	114,406	16,800,185
12	-	-	-	1,587,656	(1,587,656)	104,041	15,316,570
13	-	-	-	1,493,017	(1,493,017)	94,705	13,918,258
14	-	-	-	1,481,572	(1,481,572)	85,654	12,522,339
15	-	-	-	1,470,099	(1,470,099)	76,617	11,128,857
16	-	-	-	1,262,609	(1,262,609)	68,234	9,934,482
17	-	-	-	1,236,542	(1,236,542)	60,555	8,758,496
18	-	-	-	1,234,535	(1,234,535)	52,918	7,576,879
19	-	-	-	1,206,692	(1,206,692)	45,328	6,415,515
20	-	-	-	1,174,368	(1,174,368)	37,884	5,279,030
21	-	-	-	1,071,598	(1,071,598)	30,831	4,238,264
22	-	-	-	959,202	(959,202)	24,431	3,303,493
23	-	-	-	839,302	(839,302)	18,745	2,482,936
24	-	-	-	719,402	(719,402)	13,801	1,777,335
25	-	-	-	599,501	(599,501)	9,604	1,187,438
26	-	-	-	479,601	(479,601)	6,160	713,996
27	-	-	-	359,701	(359,701)	3,472	357,768
28	-	-	-	239,801	(239,801)	1,546	119,513
29	-	-	-	119,900	(119,900)	387	-
			44,816,368	55,559,090		1,810,935	

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area D

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	9,686	11,650	\$ 2,555,238	\$ 3,073,452
2	28	1.1950	1.0000	9,686	11,575	3,485,891	4,165,767
3	27	1.1873	1.0000	9,686	11,500	3,455,605	4,102,906
4	26	1.1797	1.0000	9,686	11,426	3,529,939	4,164,098
5	25	1.1720	1.0000	9,686	11,352	3,603,940	4,223,937
6	24	1.1645	1.0000	9,686	11,279	3,686,055	4,292,278
7	23	1.1569	1.0000	9,686	11,206	3,642,768	4,214,478
8	22	1.1495	1.0000	9,686	11,133	3,718,027	4,273,769
9	21	1.1420	1.0000	9,686	11,061	3,792,782	4,331,543
10	20	1.1347	1.0000	9,686	10,990	4,723,543	5,359,680
11	19	1.1273	1.0000	-	-	1,830,201	2,063,270
12	18	1.1201	1.0000	-	-	1,587,656	1,778,279
13	17	1.1128	1.0000	-	-	1,493,017	1,661,478
14	16	1.1056	1.0000	-	-	1,481,572	1,638,094
15	15	1.0985	1.0000	-	-	1,470,099	1,614,911
16	14	1.0914	1.0000	-	-	1,262,609	1,378,025
17	13	1.0844	1.0000	-	-	1,236,542	1,340,860
18	12	1.0774	1.0000	-	-	1,234,535	1,330,038
19	11	1.0704	1.0000	-	-	1,206,692	1,291,645
20	10	1.0635	1.0000	-	-	1,174,368	1,248,928
21	9	1.0566	1.0000	-	-	1,071,598	1,132,273
22	8	1.0498	1.0000	-	-	959,202	1,006,968
23	7	1.0430	1.0000	-	-	839,302	875,407
24	6	1.0363	1.0000	-	-	719,402	745,503
25	5	1.0296	1.0000	-	-	599,501	617,241
26	4	1.0229	1.0000	-	-	479,601	490,604
27	3	1.0163	1.0000	-	-	359,701	365,576
28	2	1.0098	1.0000	-	-	239,801	242,144
29	1	1.0033	1.0000	-	-	119,900	120,290
						113,171	55,559,090
							63,143,444

Total Escalated Expense for Entire Period	\$ 63,143,444
Less Future Value of Initial Fund Balance	10,777,994
Net Escalated Expense for Entire Period	\$ 52,365,449
Total Escalated Service Units	113,171
<b>Impact Fee for Service Area D</b>	<b>\$ 463</b>

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area D

Impact Fee Project Name <sup>(1)</sup>	Impact Fee Project No. <sup>(1)</sup>	Total	Percent in	Cost in	Impact Fee	Debt Funded <sup>(3)</sup>		Non-Debt	Impact Fee
		Project Cost <sup>(1)</sup>	Service Area <sup>(1)</sup>	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	Existing	Proposed	Funded <sup>(3)</sup>	Recoverable Cost
Timberland (1)	A-15, D-1	\$ 2,086,000	50%	\$ 1,043,000	\$ 503,383	\$ 150,112	\$ -	\$ 353,271	\$ 503,383
Timberland (2)	A-16, D-2	504,000	50%	252,000	121,623	-	60,811	60,811	121,623
Timberland (3)	A-17, D-3	5,241,058	50%	2,620,529	1,264,746	774,214	-	490,531	1,264,746
Timberland (4)	A-18, D-4	1,703,344	50%	851,672	411,042	251,620	-	159,423	411,042
Timberland (5)	A-19, D-5	1,694,000	50%	847,000	408,787	-	204,394	204,394	408,787
Timberland (6)	A-20, D-6	1,447,000	50%	723,500	349,183	-	174,591	174,591	349,183
Keller Hicks (1)	D-7	5,530,000	100%	5,530,000	2,668,943	-	1,334,472	1,334,472	2,668,943
Keller Hicks (2)	D-8	1,071,577	100%	1,071,577	517,175	508,044	-	9,131	517,175
Keller Hicks (3)	D-9	5,763,683	100%	5,763,683	2,781,725	2,732,656	-	49,070	2,781,725
Keller Hicks (4)	D-10	5,577,000	100%	5,577,000	2,691,627	199,196	1,246,215	1,246,215	2,691,627
Golden Triangle (5)	D-11	2,042,000	100%	2,042,000	985,530	985,530	-	-	985,530
Golden Triangle (6)	D-12	4,259,000	100%	4,259,000	2,055,521	2,055,521	-	-	2,055,521
Golden Triangle (7)	D-13	4,078,000	100%	4,078,000	1,968,165	1,033,006	-	935,158	1,968,165
Golden Triangle (8)	D-14	1,629,000	100%	1,629,000	786,204	-	393,102	393,102	786,204
Golden Triangle (9)	D-15	2,607,000	100%	2,607,000	1,258,216	-	629,108	629,108	1,258,216
Kroger	D-16	5,748,000	100%	5,748,000	2,774,156	-	1,387,078	1,387,078	2,774,156
N. Tarrant (3)	D-17	1,194,000	100%	1,194,000	576,260	-	288,130	288,130	576,260
N. Tarrant (4)	D-18	1,880,000	100%	1,880,000	907,344	-	453,672	453,672	907,344
N. Tarrant (5)	D-19	1,920,000	100%	1,920,000	926,649	-	463,325	463,325	926,649
N. Tarrant (6)	D-20	1,485,000	100%	1,485,000	716,705	-	358,353	358,353	716,705
Summerfields	D-21	651,000	100%	651,000	314,192	-	157,096	157,096	314,192
Riverside (1)	D-22	699,000	100%	699,000	337,358	-	168,679	168,679	337,358
Riverside (2)	D-23	628,000	100%	628,000	303,092	-	151,546	151,546	303,092
Riverside (3)	D-24	628,000	100%	628,000	303,092	-	151,546	151,546	303,092
Riverside (4)	D-25	1,172,000	100%	1,172,000	565,642	-	282,821	282,821	565,642
Riverside (5)	D-26	1,100,000	100%	1,100,000	530,893	-	265,446	265,446	530,893
Riverside (6)	D-27	1,378,007	100%	1,378,007	665,067	159,249	-	505,819	665,067
Riverside (7)	D-28	3,710,000	100%	3,710,000	1,790,557	-	895,278	895,278	1,790,557
Riverside (8)	D-29	2,691,000	100%	2,691,000	1,298,757	-	649,378	649,378	1,298,757
Riverside (9)	D-30	2,307,628	100%	2,307,628	1,113,730	-	556,865	556,865	1,113,730
Riverside (10)	D-31	1,126,000	100%	1,126,000	543,441	276,544	-	266,897	543,441
Beach (7)	A-29, D-32	3,415,000	50%	1,707,500	824,090	824,090	-	-	824,090
Beach (8)	A-30, D-33	1,285,000	50%	642,500	310,090	310,090	-	-	310,090
Beach (9)	D-34	1,684,794	100%	1,684,794	813,132	813,132	-	-	813,132
Beach (10)	D-35	4,539,651	100%	4,539,651	2,190,971	2,168,662	-	22,310	2,190,971
Beach (11)	D-36	6,344,578	100%	6,344,578	3,062,083	3,062,083	-	-	3,062,083
Beach (12)	D-37	2,346,625	100%	2,346,625	1,132,551	1,112,121	-	20,431	1,132,551
Park Vista (4)	D-38	4,323,873	100%	4,323,873	2,086,830	67,007	334,913	1,684,910	2,086,830
Park Vista (5)	D-39	457,671	100%	457,671	220,886	-	110,443	110,443	220,886
Park Vista (6)	D-40	6,089,000	100%	6,089,000	2,938,733	-	1,469,367	1,469,367	2,938,733
Park Vista (7)	D-41	5,752,000	100%	5,752,000	2,776,087	-	1,388,043	1,388,043	2,776,087
Park Vista (8)	D-42	2,059,673	100%	2,059,673	994,060	152,487	-	841,573	994,060
Beach		640,000	75%	480,000	112,800	-	56,400	56,400	112,800
Beach		770,000	100%	770,000	180,950	-	90,475	90,475	180,950
Beach		705,000	100%	705,000	165,675	-	82,838	82,838	165,675
Beach		590,000	50%	295,000	69,325	-	34,663	34,663	69,325
US 377		360,000	50%	180,000	42,300	-	21,150	21,150	42,300
US 377		475,000	25%	118,750	27,906	-	13,953	13,953	27,906
US 377		200,000	25%	50,000	11,750	-	5,875	5,875	11,750
Riverside		2,500,000	100%	2,500,000	587,500	-	293,750	293,750	587,500
Riverside		300,000	100%	300,000	70,500	-	35,250	35,250	70,500
Park Vista		1,500,000	100%	1,500,000	352,500	-	176,250	176,250	352,500
Park Vista		800,000	100%	800,000	188,000	-	94,000	94,000	188,000
Park Vista		295,000	100%	295,000	69,325	-	34,663	34,663	69,325
Park Vista		705,000	100%	705,000	165,675	-	82,838	82,838	165,675
Park Vista		460,000	50%	230,000	54,050	-	27,025	27,025	54,050
Riverside		800,000	100%	800,000	188,000	-	94,000	94,000	188,000
Riverside		1,500,000	100%	1,500,000	352,500	-	176,250	176,250	352,500
Riverside		820,000	50%	410,000	96,350	-	48,175	48,175	96,350
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 125,291,937		\$ 114,822,986	\$ 52,547,200	\$ 17,635,362	\$ 14,942,226	\$ 19,969,612	\$ 52,547,200

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
 Capital Improvement Plan for Impact Fees  
 Appendix E - Impact Fee Calculation Assumptions  
 Service Area D

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area D) <sup>(1)</sup>	96,856
Annual Growth in Vehicle Miles	<u>10</u> years 9,686

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 1,438,665	\$ 1,504,727	\$ 1,481,857	\$ 1,565,506	\$ 1,649,602	\$ 1,742,854	\$ 1,706,921	\$ 1,794,104	\$ 1,881,558	\$ 1,952,124	\$ 16,717,919
2017 Vehicle Miles plus Service Area D Growth	1,835,534	1,845,220	1,854,905	1,864,591	1,874,277	1,883,962	1,893,648	1,903,333	1,913,019	1,922,705	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.78	\$ 0.82	\$ 0.80	\$ 0.84	\$ 0.88	\$ 0.93	\$ 0.90	\$ 0.94	\$ 0.98	\$ 1.02	
Annual Growth in Service Area D Vehicle Miles (Cumulative)	9,686	19,371	29,057	38,743	48,428	58,114	67,800	77,485	87,171	96,856	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 7,591	\$ 15,797	\$ 23,213	\$ 32,528	\$ 42,623	\$ 53,761	\$ 61,114	\$ 73,038	\$ 85,737	\$ 98,338	\$ 493,742
Credit Amount	<b>\$ 493,742</b>										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area E

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	2,344
Existing Fund Balance <sup>(3)</sup>	1,603,710
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 4,136,227
Non-debt Funded New Project Cost <sup>(5)</sup>	31,609,338
New Project Cost Funded Through New Debt <sup>(6)</sup>	31,534,109
Total Recoverable Project Cost <sup>(7)</sup>	\$ 67,279,673

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 3,153,411	3.25%	20
2	3,153,411	4.25%	20
3	3,153,411	5.00%	20
4	3,153,411	5.00%	20
5	3,153,411	5.00%	20
6	3,153,411	5.00%	20
7	3,153,411	5.00%	20
8	3,153,411	5.00%	20
9	3,153,411	5.00%	20
10	3,153,411	5.00%	20
Total	\$ 31,534,109		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 4,735,758
2	6,314,345
3	6,314,345
4	6,314,345
5	6,314,345
6	6,314,345
7	6,314,345
8	6,314,345
9	6,314,345
10	7,892,931
Total	\$ 63,143,446

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Existing debt funded project costs from details provided by staff.  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area E

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 216,888	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 216,888
2	216,888	237,199	-	-	-	-	-	-	-	-	454,087
3	216,888	237,199	253,038	-	-	-	-	-	-	-	707,125
4	216,888	237,199	253,038	253,038	-	-	-	-	-	-	960,163
5	216,888	237,199	253,038	253,038	253,038	-	-	-	-	-	1,213,201
6	216,888	237,199	253,038	253,038	253,038	253,038	-	-	-	-	1,466,239
7	216,888	237,199	253,038	253,038	253,038	253,038	253,038	-	-	-	1,719,276
8	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	-	-	1,972,314
9	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	-	2,225,352
10	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
11	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
12	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
13	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
14	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
15	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
16	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
17	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
18	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
19	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
20	216,888	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,478,390
21	-	237,199	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,261,502
22	-	-	253,038	253,038	253,038	253,038	253,038	253,038	253,038	253,038	2,024,303
23	-	-	-	253,038	253,038	253,038	253,038	253,038	253,038	253,038	1,771,265
24	-	-	-	-	253,038	253,038	253,038	253,038	253,038	253,038	1,518,227
25	-	-	-	-	-	253,038	253,038	253,038	253,038	253,038	1,265,189
26	-	-	-	-	-	-	253,038	253,038	253,038	253,038	1,012,151
27	-	-	-	-	-	-	-	253,038	253,038	253,038	759,114
28	-	-	-	-	-	-	-	-	253,038	253,038	506,076
29	-	-	-	-	-	-	-	-	-	253,038	253,038
	\$ 4,337,762	\$ 4,743,981	\$ 5,060,757	\$ 5,060,757	\$ 5,060,757	\$ 5,060,757	\$ 5,060,757	\$ 5,060,757	\$ 5,060,757	\$ 5,060,757	\$ 49,567,798

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Appendix E - Impact Fee Calculation Assumptions**

**II. Summary of Annual Expenses**

<b>Year</b>	<b>New Annual Debt Service<sup>(1)</sup></b>	<b>Annual Capital Expenditures<sup>(2)</sup></b>	<b>Annual Bond Proceeds<sup>(2)</sup></b>	<b>Existing Annual Debt Service<sup>(3)</sup></b>	<b>Annual Credit<sup>(4)</sup></b>	<b>Total Expense</b>
<b>1</b>	\$ 216,888	\$ 4,735,758	\$ (3,153,411)	\$ 298,003	\$ (660)	\$ 2,096,578
<b>2</b>	454,087	6,314,345	(3,153,411)	433,411	(2,273)	4,046,159
<b>3</b>	707,125	6,314,345	(3,153,411)	419,917	(4,325)	4,283,651
<b>4</b>	960,163	6,314,345	(3,153,411)	405,826	(6,980)	4,519,942
<b>5</b>	1,213,201	6,314,345	(3,153,411)	392,113	(10,240)	4,756,007
<b>6</b>	1,466,239	6,314,345	(3,153,411)	378,401	(14,102)	4,991,471
<b>7</b>	1,719,276	6,314,345	(3,153,411)	364,464	(18,562)	5,226,112
<b>8</b>	1,972,314	6,314,345	(3,153,411)	350,527	(23,618)	5,460,157
<b>9</b>	2,225,352	6,314,345	(3,153,411)	336,589	(29,268)	5,693,608
<b>10</b>	2,478,390	7,892,931	(3,153,411)	322,652	(35,509)	7,505,052
<b>11</b>	2,478,390	-	-	308,715	-	2,787,105
<b>12</b>	2,478,390	-	-	148,904	-	2,627,294
<b>13</b>	2,478,390	-	-	143,791	-	2,622,181
<b>14</b>	2,478,390	-	-	137,400	-	2,615,790
<b>15</b>	2,478,390	-	-	130,863	-	2,609,253
<b>16</b>	2,478,390	-	-	-	-	2,478,390
<b>17</b>	2,478,390	-	-	-	-	2,478,390
<b>18</b>	2,478,390	-	-	-	-	2,478,390
<b>19</b>	2,478,390	-	-	-	-	2,478,390
<b>20</b>	2,478,390	-	-	-	-	2,478,390
<b>21</b>	2,261,502	-	-	-	-	2,261,502
<b>22</b>	2,024,303	-	-	-	-	2,024,303
<b>23</b>	1,771,265	-	-	-	-	1,771,265
<b>24</b>	1,518,227	-	-	-	-	1,518,227
<b>25</b>	1,265,189	-	-	-	-	1,265,189
<b>26</b>	1,012,151	-	-	-	-	1,012,151
<b>27</b>	759,114	-	-	-	-	759,114
<b>28</b>	506,076	-	-	-	-	506,076
<b>29</b>	253,038	-	-	-	-	253,038
	<b>\$ 49,567,798</b>	<b>\$ 63,143,446</b>	<b>\$ (31,534,109)</b>	<b>\$ 4,571,575</b>	<b>\$ (145,537)</b>	<b>\$ 85,603,174</b>



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2008 GO</u>	<u>2012 GO</u>	<u>TOTAL</u>
2007			-
2008	-		-
2009	18,624		18,624
2010	5,826		5,826
2011	5,826		5,826
2012	5,826	-	5,826
2013	5,826	127,671	133,497
2014	5,826	127,671	133,497
2015	5,813	127,671	133,484
2016	5,813	127,821	133,634
2017	5,813	127,671	133,484
	<u>\$ 65,196</u>	<u>\$ 638,505</u>	<u>\$ 703,700</u>

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	4,136,227
-Less Principal PTD	<u>703,700</u>
Outstanding Debt Principal	3,432,526
New Project Costs Debt Principal(5)	<u>31,534,109</u>
<b>Principal Component</b>	<b>\$ 34,966,635</b>

(1) Appendix E - Service Area E, Page 2

(2) Appendix E - Service Area E, Page 1

(3) Existing debt funded project costs from details provided by staff.

(4) Appendix E - Service Area E, Page 8

(5) Appendix E - Service Area E, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area E

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 1,603,710
1	\$ 3,449	2,344	\$ 8,086,773	\$ 2,096,578	\$ 5,990,195	29,892	7,623,797
2	3,449	2,344	8,086,773	4,046,159	4,040,614	62,687	11,727,098
3	3,449	2,344	8,086,773	4,283,651	3,803,122	88,586	15,618,806
4	3,449	2,344	8,086,773	4,519,942	3,566,831	113,114	19,298,751
5	3,449	2,344	8,086,773	4,756,007	3,330,765	136,267	22,765,783
6	3,449	2,344	8,086,773	4,991,471	3,095,302	158,037	26,019,123
7	3,449	2,344	8,086,773	5,226,112	2,860,661	178,421	29,058,205
8	3,449	2,344	8,086,773	5,460,157	2,626,616	197,415	31,882,236
9	3,449	2,344	8,086,773	5,693,608	2,393,165	215,012	34,490,413
10	3,449	2,344	8,086,773	7,505,052	581,721	226,078	35,298,212
11	-	-	-	2,787,105	(2,787,105)	220,380	32,731,488
12	-	-	-	2,627,294	(2,627,294)	204,216	30,308,410
13	-	-	-	2,622,181	(2,622,181)	188,483	27,874,712
14	-	-	-	2,615,790	(2,615,790)	172,684	25,431,606
15	-	-	-	2,609,253	(2,609,253)	156,825	22,979,179
16	-	-	-	2,478,390	(2,478,390)	141,310	20,642,099
17	-	-	-	2,478,390	(2,478,390)	126,119	18,289,828
18	-	-	-	2,478,390	(2,478,390)	110,829	15,922,267
19	-	-	-	2,478,390	(2,478,390)	95,440	13,539,317
20	-	-	-	2,478,390	(2,478,390)	79,951	11,140,878
21	-	-	-	2,261,502	(2,261,502)	65,066	8,944,442
22	-	-	-	2,024,303	(2,024,303)	51,560	6,971,699
23	-	-	-	1,771,265	(1,771,265)	39,559	5,239,994
24	-	-	-	1,518,227	(1,518,227)	29,126	3,750,892
25	-	-	-	1,265,189	(1,265,189)	20,269	2,505,972
26	-	-	-	1,012,151	(1,012,151)	12,999	1,506,820
27	-	-	-	759,114	(759,114)	7,327	755,034
28	-	-	-	506,076	(506,076)	3,263	252,221
29	-	-	-	253,038	(253,038)	817	-
			80,867,730	85,603,174		3,131,734	

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area E

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	2,344	2,820	\$ 2,096,578	\$ 2,521,773
2	28	1.1950	1.0000	2,344	2,802	4,046,159	4,835,308
3	27	1.1873	1.0000	2,344	2,784	4,283,651	5,086,060
4	26	1.1797	1.0000	2,344	2,766	4,519,942	5,331,956
5	25	1.1720	1.0000	2,344	2,748	4,756,007	5,574,198
6	24	1.1645	1.0000	2,344	2,730	4,991,471	5,812,389
7	23	1.1569	1.0000	2,344	2,712	5,226,112	6,046,319
8	22	1.1495	1.0000	2,344	2,695	5,460,157	6,276,300
9	21	1.1420	1.0000	2,344	2,677	5,693,608	6,502,379
10	20	1.1347	1.0000	2,344	2,660	7,505,052	8,515,785
11	19	1.1273	1.0000	-	-	2,787,105	3,142,031
12	18	1.1201	1.0000	-	-	2,627,294	2,942,741
13	17	1.1128	1.0000	-	-	2,622,181	2,918,047
14	16	1.1056	1.0000	-	-	2,615,790	2,892,136
15	15	1.0985	1.0000	-	-	2,609,253	2,866,277
16	14	1.0914	1.0000	-	-	2,478,390	2,704,942
17	13	1.0844	1.0000	-	-	2,478,390	2,687,473
18	12	1.0774	1.0000	-	-	2,478,390	2,670,117
19	11	1.0704	1.0000	-	-	2,478,390	2,652,874
20	10	1.0635	1.0000	-	-	2,478,390	2,635,741
21	9	1.0566	1.0000	-	-	2,261,502	2,389,551
22	8	1.0498	1.0000	-	-	2,024,303	2,125,108
23	7	1.0430	1.0000	-	-	1,771,265	1,847,461
24	6	1.0363	1.0000	-	-	1,518,227	1,573,312
25	5	1.0296	1.0000	-	-	1,265,189	1,302,626
26	4	1.0229	1.0000	-	-	1,012,151	1,035,371
27	3	1.0163	1.0000	-	-	759,114	771,513
28	2	1.0098	1.0000	-	-	506,076	511,021
29	1	1.0033	1.0000	-	-	253,038	253,860
						27,393	96,424,671

Total Escalated Expense for Entire Period	\$ 96,424,671
Less Future Value of Initial Fund Balance	1,935,198
Net Escalated Expense for Entire Period	\$ 94,489,473
Total Escalated Service Units	27,393
<b>Impact Fee for Service Area E</b>	<b>\$ 3,449</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area E

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Eagle Mountain (1)	E-1	\$ 9,658,000	100%	\$ 9,658,000	\$ 6,303,588	\$ -	\$ 3,151,794	\$ 3,151,794	\$ 6,303,588
Eagle Mountain (2)	E-2	8,233,000	100%	8,233,000	5,373,518	-	2,686,759	2,686,759	5,373,518
Boat Club	E-3	2,242,000	100%	2,242,000	1,463,310	-	731,655	731,655	1,463,310
Heritage Trace (1)	E-4	8,820,000	100%	8,820,000	5,756,642	-	2,878,321	2,878,321	5,756,642
Heritage Trace (2)	E-5	516,000	100%	516,000	336,783	-	168,392	168,392	336,783
Heritage Trace (3)	E-6	2,395,000	100%	2,395,000	1,563,170	-	781,585	781,585	1,563,170
Heritage Trace (4)	E-7	5,017,000	100%	5,017,000	3,274,498	-	1,637,249	1,637,249	3,274,498
Heritage Trace (5)	E-8	4,968,000	50%	2,484,000	1,621,258	-	810,629	810,629	1,621,258
Bailey Boswell (1)	E-9	2,709,000	50%	1,354,500	884,056	-	442,028	442,028	884,056
Bailey Boswell (2)	E-10	8,578,000	100%	8,578,000	5,598,693	-	2,799,347	2,799,347	5,598,693
WJ Boaz	E-11, G-1	14,507,000	50%	7,253,500	4,734,218	-	2,367,109	2,367,109	4,734,218
Robertson	E-12	6,105,868	100%	6,105,868	3,985,181	3,985,181	-	-	3,985,181
Fleming Ranch	E-13	21,595,000	100%	21,595,000	14,094,635	-	7,047,317	7,047,317	14,094,635
Edward Green	E-14	2,145,000	100%	2,145,000	1,400,000	-	700,000	700,000	1,400,000
Willow Springs (6)	E-15	2,213,000	100%	2,213,000	1,444,382	-	722,191	722,191	1,444,382
Willow Springs (7)	E-16	9,521,000	100%	9,521,000	6,214,171	-	3,107,085	3,107,085	6,214,171
Old Decatur (1)	E-17	898,000	100%	898,000	586,107	-	293,054	293,054	586,107
Wagley Robertson (6)	C-24, E-18	4,748,000	50%	2,374,000	1,549,463	-	774,732	774,732	1,549,463
Wagley Robertson (9)	C-27, E-19	878,000	50%	439,000	286,527	-	143,263	143,263	286,527
Eagle Mountain		400,000	100%	400,000	54,000	-	27,000	27,000	54,000
Eagle Mountain		1,000,000	100%	1,000,000	135,000	-	67,500	67,500	135,000
Heritage Trace		800,000	100%	800,000	108,000	-	54,000	54,000	108,000
Heritage Trace		510,000	100%	510,000	68,850	-	34,425	34,425	68,850
Heritage Trace		1,020,000	100%	1,020,000	137,700	-	68,850	68,850	137,700
Robertson		1,500,000	100%	1,500,000	202,500	151,046	-	51,454	202,500
Robertson		180,000	50%	90,000	12,150	-	6,075	6,075	12,150
WJ Boaz		500,000	75%	375,000	50,625	-	25,313	25,313	50,625
WJ Boaz		500,000	25%	125,000	16,875	-	8,438	8,438	16,875
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 122,180,643		\$ 107,685,643	\$ 67,279,673	#####	\$ 31,534,109	\$ 31,609,338	\$ 67,279,673

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area E

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area E) <sup>(1)</sup>	23,444
Annual Growth in Vehicle Miles	<u>10</u> years 2,344

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 514,891	\$ 887,499	\$ 1,127,042	\$ 1,365,988	\$ 1,605,314	\$ 1,844,640	\$ 2,083,740	\$ 2,322,841	\$ 2,561,941	\$ 2,801,042	\$ 17,114,937
2017 Vehicle Miles plus Service Area E Growth	1,828,193	1,830,537	1,832,881	1,835,226	1,837,570	1,839,915	1,842,259	1,844,603	1,846,948	1,849,292	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.28	\$ 0.48	\$ 0.61	\$ 0.74	\$ 0.87	\$ 1.00	\$ 1.13	\$ 1.26	\$ 1.39	\$ 1.51	
Annual Growth in Service Area E Vehicle Miles (Cumulative)	2,344	4,689	7,033	9,378	11,722	14,066	16,411	18,755	21,099	23,444	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 660	\$ 2,273	\$ 4,325	\$ 6,980	\$ 10,240	\$ 14,102	\$ 18,562	\$ 23,618	\$ 29,268	\$ 35,509	\$ 145,537
Credit Amount	\$ 145,537										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area F

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	2,970
Existing Fund Balance <sup>(3)</sup>	2,410,940
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 5,026,710
Non-debt Funded New Project Cost <sup>(5)</sup>	7,718,161
New Project Cost Funded Through New Debt <sup>(6)</sup>	7,510,180
Total Recoverable Project Cost <sup>(7)</sup>	\$ 20,255,051

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 751,018	3.25%	20
2	751,018	4.25%	20
3	751,018	5.00%	20
4	751,018	5.00%	20
5	751,018	5.00%	20
6	751,018	5.00%	20
7	751,018	5.00%	20
8	751,018	5.00%	20
9	751,018	5.00%	20
10	751,018	5.00%	20
Total	\$ 7,510,180		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 1,142,126
2	1,522,834
3	1,522,834
4	1,522,834
5	1,522,834
6	1,522,834
7	1,522,834
8	1,522,834
9	1,522,834
10	1,903,543
Total	\$ 15,228,341

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Existing debt funded project costs from details provided by staff.  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area F

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 51,654	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51,654
2	51,654	56,491	-	-	-	-	-	-	-	-	108,146
3	51,654	56,491	60,264	-	-	-	-	-	-	-	168,409
4	51,654	56,491	60,264	60,264	-	-	-	-	-	-	228,673
5	51,654	56,491	60,264	60,264	60,264	-	-	-	-	-	288,937
6	51,654	56,491	60,264	60,264	60,264	60,264	-	-	-	-	349,200
7	51,654	56,491	60,264	60,264	60,264	60,264	60,264	-	-	-	409,464
8	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	-	-	469,727
9	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	-	529,991
10	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
11	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
12	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
13	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
14	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
15	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
16	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
17	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
18	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
19	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
20	51,654	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	590,255
21	-	56,491	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	538,600
22	-	-	60,264	60,264	60,264	60,264	60,264	60,264	60,264	60,264	482,109
23	-	-	-	60,264	60,264	60,264	60,264	60,264	60,264	60,264	421,845
24	-	-	-	-	60,264	60,264	60,264	60,264	60,264	60,264	361,582
25	-	-	-	-	-	60,264	60,264	60,264	60,264	60,264	301,318
26	-	-	-	-	-	-	60,264	60,264	60,264	60,264	241,055
27	-	-	-	-	-	-	-	60,264	60,264	60,264	180,791
28	-	-	-	-	-	-	-	-	60,264	60,264	120,527
29	-	-	-	-	-	-	-	-	-	60,264	60,264
	\$ 1,033,084	\$ 1,129,829	\$ 1,205,273	\$ 1,205,273	\$ 1,205,273	\$ 1,205,273	\$ 1,205,273	\$ 1,205,273	\$ 1,205,273	\$ 1,205,273	\$ 11,805,093



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 51,654	\$ 1,142,126	\$ (751,018)	\$ 591,043	\$ (1,044)	\$ 1,032,761
2	108,146	1,522,834	(751,018)	595,204	(2,281)	1,472,885
3	168,409	1,522,834	(751,018)	570,353	(3,588)	1,506,990
4	228,673	1,522,834	(751,018)	557,985	(5,086)	1,553,388
5	288,937	1,522,834	(751,018)	545,652	(6,734)	1,599,671
6	349,200	1,522,834	(751,018)	533,320	(8,531)	1,645,806
7	409,464	1,522,834	(751,018)	55,809	(5,239)	1,231,850
8	469,727	1,522,834	(751,018)	53,801	(6,726)	1,288,619
9	529,991	1,522,834	(751,018)	51,784	(8,395)	1,345,196
10	590,255	1,903,543	(751,018)	49,777	(10,245)	1,782,311
11	590,255	-	-	47,765	-	638,020
12	590,255	-	-	29,128	-	619,382
13	590,255	-	-	24,478	-	614,733
14	590,255	-	-	23,578	-	613,833
15	590,255	-	-	22,667	-	612,922
16	590,255	-	-	7,563	-	597,818
17	590,255	-	-	4,450	-	594,704
18	590,255	-	-	4,306	-	594,560
19	590,255	-	-	4,182	-	594,437
20	590,255	-	-	-	-	590,255
21	538,600	-	-	-	-	538,600
22	482,109	-	-	-	-	482,109
23	421,845	-	-	-	-	421,845
24	361,582	-	-	-	-	361,582
25	301,318	-	-	-	-	301,318
26	241,055	-	-	-	-	241,055
27	180,791	-	-	-	-	180,791
28	120,527	-	-	-	-	120,527
29	60,264	-	-	-	-	60,264
	\$ 11,805,093	\$ 15,228,341	\$ (7,510,180)	\$ 3,772,845	\$ (57,867)	\$ 23,238,233

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2009 GO</u>	<u>2012 GO</u>	<u>2014 GO</u>	<u>2016 GO</u>	<u>TOTAL</u>
2007					-
2008					-
2009	-				-
2010	16,364				16,364
2011	16,364				16,364
2012	16,364	-			16,364
2013	16,364	14,576			30,940
2014	16,364	14,576	-		30,940
2015	16,364	14,576	470,930		501,870
2016	16,364	14,593	470,930	-	501,887
2017	16,364	14,576	470,930	12,529	514,399
	\$ 130,913	\$ 72,897	\$ 1,412,791	\$ 12,529	\$ 1,629,129

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	5,026,710
-Less Principal PTD	1,629,129
Outstanding Debt Principal	3,397,580
New Project Costs Debt Principal(5)	7,510,180
<b>Principal Component</b>	<b>\$ 10,907,760</b>

(1) Appendix E - Service Area F, Page 2

(2) Appendix E - Service Area F, Page 1

(3) Existing debt funded project costs from details provided by staff.

(4) Appendix E - Service Area F, Page 8

(5) Appendix E - Service Area F, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area F

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 2,410,940
1	\$ 675	2,970	\$ 2,005,643	\$ 1,032,761	\$ 972,882	18,833	3,402,655
2	675	2,970	2,005,643	1,472,885	532,759	23,849	3,959,263
3	675	2,970	2,005,643	1,506,990	498,653	27,356	4,485,272
4	675	2,970	2,005,643	1,553,388	452,255	30,624	4,968,151
5	675	2,970	2,005,643	1,599,671	405,972	33,612	5,407,735
6	675	2,970	2,005,643	1,645,806	359,837	36,320	5,803,892
7	675	2,970	2,005,643	1,231,850	773,793	40,240	6,617,925
8	675	2,970	2,005,643	1,288,619	717,025	45,347	7,380,297
9	675	2,970	2,005,643	1,345,196	660,447	50,118	8,090,862
10	675	2,970	2,005,643	1,782,311	223,332	53,316	8,367,511
11	-	-	-	638,020	(638,020)	52,315	7,781,807
12	-	-	-	619,382	(619,382)	48,569	7,210,993
13	-	-	-	614,733	(614,733)	44,874	6,641,133
14	-	-	-	613,833	(613,833)	41,172	6,068,473
15	-	-	-	612,922	(612,922)	37,453	5,493,004
16	-	-	-	597,818	(597,818)	33,762	4,928,948
17	-	-	-	594,704	(594,704)	30,105	4,364,348
18	-	-	-	594,560	(594,560)	26,436	3,796,224
19	-	-	-	594,437	(594,437)	22,744	3,224,531
20	-	-	-	590,255	(590,255)	19,041	2,653,317
21	-	-	-	538,600	(538,600)	15,496	2,130,213
22	-	-	-	482,109	(482,109)	12,280	1,660,384
23	-	-	-	421,845	(421,845)	9,421	1,247,960
24	-	-	-	361,582	(361,582)	6,937	893,314
25	-	-	-	301,318	(301,318)	4,827	596,824
26	-	-	-	241,055	(241,055)	3,096	358,865
27	-	-	-	180,791	(180,791)	1,745	179,819
28	-	-	-	120,527	(120,527)	777	60,069
29	-	-	-	60,264	(60,264)	195	-
			20,056,433	23,238,233		770,860	

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area F

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	2,970	3,573	\$ 1,032,761	\$ 1,242,209
2	28	1.1950	1.0000	2,970	3,550	1,472,885	1,760,151
3	27	1.1873	1.0000	2,970	3,527	1,506,990	1,789,278
4	26	1.1797	1.0000	2,970	3,504	1,553,388	1,832,457
5	25	1.1720	1.0000	2,970	3,481	1,599,671	1,874,867
6	24	1.1645	1.0000	2,970	3,459	1,645,806	1,916,482
7	23	1.1569	1.0000	2,970	3,436	1,231,850	1,425,182
8	22	1.1495	1.0000	2,970	3,414	1,288,619	1,481,232
9	21	1.1420	1.0000	2,970	3,392	1,345,196	1,536,280
10	20	1.1347	1.0000	2,970	3,370	1,782,311	2,022,341
11	19	1.1273	1.0000	-	-	638,020	719,269
12	18	1.1201	1.0000	-	-	619,382	693,749
13	17	1.1128	1.0000	-	-	614,733	684,095
14	16	1.1056	1.0000	-	-	613,833	678,682
15	15	1.0985	1.0000	-	-	612,922	673,298
16	14	1.0914	1.0000	-	-	597,818	652,465
17	13	1.0844	1.0000	-	-	594,704	644,875
18	12	1.0774	1.0000	-	-	594,560	640,555
19	11	1.0704	1.0000	-	-	594,437	636,286
20	10	1.0635	1.0000	-	-	590,255	627,730
21	9	1.0566	1.0000	-	-	538,600	569,097
22	8	1.0498	1.0000	-	-	482,109	506,117
23	7	1.0430	1.0000	-	-	421,845	439,992
24	6	1.0363	1.0000	-	-	361,582	374,701
25	5	1.0296	1.0000	-	-	301,318	310,234
26	4	1.0229	1.0000	-	-	241,055	246,585
27	3	1.0163	1.0000	-	-	180,791	183,744
28	2	1.0098	1.0000	-	-	120,527	121,705
29	1	1.0033	1.0000	-	-	60,264	60,459
					34,705	23,238,233	26,344,116

Total Escalated Expense for Entire Period	\$ 26,344,116
Less Future Value of Initial Fund Balance	2,909,283
Net Escalated Expense for Entire Period	\$ 23,434,833
Total Escalated Service Units	34,705
<b>Impact Fee for Service Area F</b>	<b>\$ 675</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### Service Area F

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Basswood	C-20, F-1	\$ 571,000	50%	\$ 285,500	\$ 159,138	\$ -	\$ -	\$ 159,138	\$ 159,138
Western Center (1)	F-2	625,000	100%	625,000	348,376	-	174,188	174,188	348,376
Western Center (2)	F-3	951,000	100%	951,000	530,089	-	265,044	265,044	530,089
Western Center (3)	F-4	341,000	100%	341,000	190,074	-	95,037	95,037	190,074
Western Center (4)	F-5	780,000	100%	780,000	434,773	-	217,387	217,387	434,773
Western Center (5)	F-6	360,000	100%	360,000	200,664	-	100,332	100,332	200,664
Cantrell Sansom (1)	F-7	1,430,000	100%	1,430,000	797,084	-	398,542	398,542	797,084
Cantrell Sansom (2)	F-8	805,000	100%	805,000	448,708	-	224,354	224,354	448,708
Cantrell Sansom (3)	F-9	1,536,000	100%	1,536,000	856,168	-	428,084	428,084	856,168
Cantrell Sansom (4)	F-10	1,443,000	100%	1,443,000	804,330	-	402,165	402,165	804,330
Northeast	F-11	1,595,000	100%	1,595,000	889,055	-	444,528	444,528	889,055
Meacham (1)	F-12	3,128,000	100%	3,128,000	1,743,551	-	871,776	871,776	1,743,551
Meacham (2)	F-13	975,000	100%	975,000	543,466	-	271,733	271,733	543,466
Meacham (3)	F-14	957,000	100%	957,000	533,433	-	266,717	266,717	533,433
Lone Star (1)	F-15	5,471,000	100%	5,471,000	3,049,543	-	1,524,771	1,524,771	3,049,543
Lone Star (2)	F-16	162,000	100%	162,000	90,299	-	45,150	45,150	90,299
Riverside (11)	F-17	1,377,102	100%	1,377,102	767,599	767,599	-	-	767,599
Sylvania	F-18	1,793,000	100%	1,793,000	999,421	-	499,710	499,710	999,421
Beach (13)	F-19	7,598,454	100%	7,598,454	4,235,388	4,235,388	-	-	4,235,388
Beach		590,000	50%	295,000	35,105	-	17,553	17,553	35,105
Cantrell Sansom		2,500,000	100%	2,500,000	297,500	-	148,750	148,750	297,500
US 377		475,000	25%	118,750	14,131	-	7,066	7,066	14,131
Fossil Creek		230,000	50%	115,000	13,685	-	6,843	6,843	13,685
Great Southwest		1,500,000	100%	1,500,000	178,500	-	89,250	89,250	178,500
Great Southwest		2,500,000	100%	2,500,000	297,500	-	148,750	148,750	297,500
Great Southwest		2,500,000	100%	2,500,000	297,500	-	148,750	148,750	297,500
Long		2,500,000	100%	2,500,000	297,500	-	148,750	148,750	297,500
Long		770,000	50%	385,000	45,815	-	22,908	22,908	45,815
Meacham		460,000	100%	460,000	54,740	-	27,370	27,370	54,740
Meacham		200,000	100%	200,000	23,800	-	11,900	11,900	23,800
Meacham		950,000	100%	950,000	113,050	-	56,525	56,525	113,050
Northeast		1,500,000	100%	1,500,000	178,500	-	89,250	89,250	178,500
Northeast		2,500,000	100%	2,500,000	297,500	-	148,750	148,750	297,500
Northern Cross		2,500,000	100%	2,500,000	297,500	-	148,750	148,750	297,500
Park Vista		460,000	50%	230,000	27,370	-	13,685	13,685	27,370
Riverside		820,000	50%	410,000	48,790	23,723	-	25,067	48,790
Western Center		770,000	100%	770,000	91,630	-	45,815	45,815	91,630
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 55,647,331		\$ 53,570,581	\$ 20,255,051	#####	\$ 7,510,180	\$ 7,718,161	\$ 20,255,051

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
 Capital Improvement Plan for Impact Fees  
 Appendix E - Impact Fee Calculation Assumptions  
 Service Area F

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area F) <sup>(1)</sup>	29,702
Annual Growth in Vehicle Miles	<u>10</u> years 2,970

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 642,697	\$ 703,349	\$ 738,762	\$ 786,658	\$ 834,589	\$ 882,521	\$ 465,273	\$ 523,528	\$ 581,775	\$ 640,031	\$ 6,799,183
2017 Vehicle Miles plus Service Area F Growth	1,828,819	1,831,789	1,834,759	1,837,729	1,840,699	1,843,670	1,846,640	1,849,610	1,852,580	1,855,551	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.35	\$ 0.38	\$ 0.40	\$ 0.43	\$ 0.45	\$ 0.48	\$ 0.25	\$ 0.28	\$ 0.31	\$ 0.34	
Annual Growth in Service Area F Vehicle Miles (Cumulative)	2,970	5,940	8,911	11,881	14,851	17,821	20,792	23,762	26,732	29,702	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 1,044	\$ 2,281	\$ 3,588	\$ 5,086	\$ 6,734	\$ 8,531	\$ 5,239	\$ 6,726	\$ 8,395	\$ 10,245	\$ 57,867
Credit Amount	\$ 57,867										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area G

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	3,206
Existing Fund Balance <sup>(3)</sup>	\$ 722,605
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 5,700,491
Non-debt Funded New Project Cost <sup>(5)</sup>	22,005,091
New Project Cost Funded Through New Debt <sup>(6)</sup>	21,981,316
Total Recoverable Project Cost <sup>(7)</sup>	\$ 49,686,898

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 2,198,132	3.25%	20
2	2,198,132	4.25%	20
3	2,198,132	5.00%	20
4	2,198,132	5.00%	20
5	2,198,132	5.00%	20
6	2,198,132	5.00%	20
7	2,198,132	5.00%	20
8	2,198,132	5.00%	20
9	2,198,132	5.00%	20
10	2,198,132	5.00%	20
Total	\$ 21,981,316		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 3,298,981
2	4,398,641
3	4,398,641
4	4,398,641
5	4,398,641
6	4,398,641
7	4,398,641
8	4,398,641
9	4,398,641
10	5,498,301
Total	\$ 43,986,407

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Existing debt funded project costs from details provided by staff.  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area G

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 151,185	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 151,185
2	151,185	165,343	-	-	-	-	-	-	-	-	316,528
3	151,185	165,343	176,384	-	-	-	-	-	-	-	492,912
4	151,185	165,343	176,384	176,384	-	-	-	-	-	-	669,296
5	151,185	165,343	176,384	176,384	176,384	-	-	-	-	-	845,679
6	151,185	165,343	176,384	176,384	176,384	176,384	-	-	-	-	1,022,063
7	151,185	165,343	176,384	176,384	176,384	176,384	176,384	-	-	-	1,198,447
8	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	-	-	1,374,831
9	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	-	1,551,215
10	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
11	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
12	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
13	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
14	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
15	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
16	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
17	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
18	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
19	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
20	151,185	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,727,598
21	-	165,343	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,576,413
22	-	-	176,384	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,411,070
23	-	-	-	176,384	176,384	176,384	176,384	176,384	176,384	176,384	1,234,686
24	-	-	-	-	176,384	176,384	176,384	176,384	176,384	176,384	1,058,303
25	-	-	-	-	-	176,384	176,384	176,384	176,384	176,384	881,919
26	-	-	-	-	-	-	176,384	176,384	176,384	176,384	705,535
27	-	-	-	-	-	-	-	176,384	176,384	176,384	529,151
28	-	-	-	-	-	-	-	-	176,384	176,384	352,768
29	-	-	-	-	-	-	-	-	-	176,384	176,384
	\$ 3,023,701	\$ 3,306,862	\$ 3,527,675	\$ 3,527,675	\$ 3,527,675	\$ 3,527,675	\$ 3,527,675	\$ 3,527,675	\$ 3,527,675	\$ 3,527,675	\$ 34,551,965

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Appendix E - Impact Fee Calculation Assumptions**

**II. Summary of Annual Expenses**

<b>Year</b>	<b>New Annual Debt Service<sup>(1)</sup></b>	<b>Annual Capital Expenditures<sup>(2)</sup></b>	<b>Annual Bond Proceeds<sup>(2)</sup></b>	<b>Existing Annual Debt Service<sup>(3)</sup></b>	<b>Annual Credit<sup>(4)</sup></b>	<b>Total Expense</b>
<b>1</b>	\$ 151,185	\$ 3,298,981	\$ (2,198,132)	\$ 710,440	\$ (1,510)	\$ 1,960,964
<b>2</b>	316,528	4,398,641	(2,198,132)	695,701	(3,542)	3,209,196
<b>3</b>	492,912	4,398,641	(2,198,132)	681,774	(6,155)	3,369,040
<b>4</b>	669,296	4,398,641	(2,198,132)	667,848	(9,325)	3,528,327
<b>5</b>	845,679	4,398,641	(2,198,132)	653,921	(13,050)	3,687,059
<b>6</b>	1,022,063	4,398,641	(2,198,132)	639,994	(17,326)	3,845,240
<b>7</b>	1,198,447	4,398,641	(2,198,132)	-	(14,550)	3,384,406
<b>8</b>	1,374,831	4,398,641	(2,198,132)	-	(19,043)	3,556,297
<b>9</b>	1,551,215	4,398,641	(2,198,132)	-	(24,130)	3,727,593
<b>10</b>	1,727,598	5,498,301	(2,198,132)	-	(29,809)	4,997,959
<b>11</b>	1,727,598	-	-	-	-	1,727,598
<b>12</b>	1,727,598	-	-	-	-	1,727,598
<b>13</b>	1,727,598	-	-	-	-	1,727,598
<b>14</b>	1,727,598	-	-	-	-	1,727,598
<b>15</b>	1,727,598	-	-	-	-	1,727,598
<b>16</b>	1,727,598	-	-	-	-	1,727,598
<b>17</b>	1,727,598	-	-	-	-	1,727,598
<b>18</b>	1,727,598	-	-	-	-	1,727,598
<b>19</b>	1,727,598	-	-	-	-	1,727,598
<b>20</b>	1,727,598	-	-	-	-	1,727,598
<b>21</b>	1,576,413	-	-	-	-	1,576,413
<b>22</b>	1,411,070	-	-	-	-	1,411,070
<b>23</b>	1,234,686	-	-	-	-	1,234,686
<b>24</b>	1,058,303	-	-	-	-	1,058,303
<b>25</b>	881,919	-	-	-	-	881,919
<b>26</b>	705,535	-	-	-	-	705,535
<b>27</b>	529,151	-	-	-	-	529,151
<b>28</b>	352,768	-	-	-	-	352,768
<b>29</b>	176,384	-	-	-	-	176,384
	<b>\$ 34,551,965</b>	<b>\$ 43,986,407</b>	<b>\$ (21,981,316)</b>	<b>\$ 4,049,677</b>	<b>\$ (138,441)</b>	<b>\$ 60,468,292</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2014 GO</u>	<u>TOTAL</u>
2007		-
2008		-
2009		-
2010		-
2011		-
2012		-
2013		-
2014	-	-
2015	633,834	633,834
2016	633,834	633,834
2017	633,834	633,834
	<u>\$ 1,901,503</u>	<u>\$ 1,901,503</u>

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	5,700,491
-Less Principal PTD	<u>1,901,503</u>
Outstanding Debt Principal	3,798,988
New Project Costs Debt Principal(5)	<u>21,981,316</u>
<b>Principal Component</b>	<b>\$ 25,780,304</b>

(1) Appendix E - Service Area G, Page 2

(2) Appendix E - Service Area G, Page 1

(3) Existing debt funded project costs from details provided by staff.

(4) Appendix E - Service Area G, Page 8

(5) Appendix E - Service Area G, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area G

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
<b>Initial</b>							\$ 722,605
<b>1</b>	\$ 1,799	3,206	\$ 5,765,489	\$ 1,960,964	\$ 3,804,526	17,062	4,544,193
<b>2</b>	1,799	3,206	5,765,489	3,209,196	2,556,293	37,845	7,138,331
<b>3</b>	1,799	3,206	5,765,489	3,369,040	2,396,449	54,188	9,588,968
<b>4</b>	1,799	3,206	5,765,489	3,528,327	2,237,162	69,599	11,895,729
<b>5</b>	1,799	3,206	5,765,489	3,687,059	2,078,430	84,077	14,058,236
<b>6</b>	1,799	3,206	5,765,489	3,845,240	1,920,249	97,619	16,076,105
<b>7</b>	1,799	3,206	5,765,489	3,384,406	2,381,084	112,233	18,569,422
<b>8</b>	1,799	3,206	5,765,489	3,556,297	2,209,193	127,881	20,906,496
<b>9</b>	1,799	3,206	5,765,489	3,727,593	2,037,896	142,515	23,086,908
<b>10</b>	1,799	3,206	5,765,489	4,997,959	767,531	152,559	24,006,998
<b>11</b>	-	-	-	1,727,598	(1,727,598)	150,431	22,429,830
<b>12</b>	-	-	-	1,727,598	(1,727,598)	140,179	20,842,411
<b>13</b>	-	-	-	1,727,598	(1,727,598)	129,861	19,244,674
<b>14</b>	-	-	-	1,727,598	(1,727,598)	119,476	17,636,551
<b>15</b>	-	-	-	1,727,598	(1,727,598)	109,023	16,017,976
<b>16</b>	-	-	-	1,727,598	(1,727,598)	98,502	14,388,880
<b>17</b>	-	-	-	1,727,598	(1,727,598)	87,913	12,749,194
<b>18</b>	-	-	-	1,727,598	(1,727,598)	77,255	11,098,851
<b>19</b>	-	-	-	1,727,598	(1,727,598)	66,528	9,437,781
<b>20</b>	-	-	-	1,727,598	(1,727,598)	55,731	7,765,913
<b>21</b>	-	-	-	1,576,413	(1,576,413)	45,355	6,234,855
<b>22</b>	-	-	-	1,411,070	(1,411,070)	35,941	4,859,726
<b>23</b>	-	-	-	1,234,686	(1,234,686)	27,575	3,652,615
<b>24</b>	-	-	-	1,058,303	(1,058,303)	20,303	2,614,615
<b>25</b>	-	-	-	881,919	(881,919)	14,129	1,746,825
<b>26</b>	-	-	-	705,535	(705,535)	9,061	1,050,351
<b>27</b>	-	-	-	529,151	(529,151)	5,108	526,307
<b>28</b>	-	-	-	352,768	(352,768)	2,275	175,814
<b>29</b>	-	-	-	176,384	(176,384)	570	-
			57,654,894	60,468,292		2,090,793	

City of Fort Worth - 2017 Transportation Impact Fee Study  
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Appendix E - Impact Fee Calculation Assumptions  
Service Area G

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	3,206	3,856	\$ 1,960,964	\$ 2,358,656
2	28	1.1950	1.0000	3,206	3,831	3,209,196	3,835,107
3	27	1.1873	1.0000	3,206	3,806	3,369,040	4,000,126
4	26	1.1797	1.0000	3,206	3,782	3,528,327	4,162,196
5	25	1.1720	1.0000	3,206	3,757	3,687,059	4,321,356
6	24	1.1645	1.0000	3,206	3,733	3,845,240	4,477,644
7	23	1.1569	1.0000	3,206	3,709	3,384,406	3,915,568
8	22	1.1495	1.0000	3,206	3,685	3,556,297	4,087,865
9	21	1.1420	1.0000	3,206	3,661	3,727,593	4,257,094
10	20	1.1347	1.0000	3,206	3,637	4,997,959	5,671,052
11	19	1.1273	1.0000	-	-	1,727,598	1,947,601
12	18	1.1201	1.0000	-	-	1,727,598	1,935,023
13	17	1.1128	1.0000	-	-	1,727,598	1,922,527
14	16	1.1056	1.0000	-	-	1,727,598	1,910,111
15	15	1.0985	1.0000	-	-	1,727,598	1,897,776
16	14	1.0914	1.0000	-	-	1,727,598	1,885,520
17	13	1.0844	1.0000	-	-	1,727,598	1,873,343
18	12	1.0774	1.0000	-	-	1,727,598	1,861,245
19	11	1.0704	1.0000	-	-	1,727,598	1,849,225
20	10	1.0635	1.0000	-	-	1,727,598	1,837,283
21	9	1.0566	1.0000	-	-	1,576,413	1,665,672
22	8	1.0498	1.0000	-	-	1,411,070	1,481,338
23	7	1.0430	1.0000	-	-	1,234,686	1,287,800
24	6	1.0363	1.0000	-	-	1,058,303	1,096,700
25	5	1.0296	1.0000	-	-	881,919	908,015
26	4	1.0229	1.0000	-	-	705,535	721,721
27	3	1.0163	1.0000	-	-	529,151	537,795
28	2	1.0098	1.0000	-	-	352,768	356,214
29	1	1.0033	1.0000	-	-	176,384	176,957
						37,457	60,468,292
							68,238,526

Total Escalated Expense for Entire Period	\$ 68,238,526
Less Future Value of Initial Fund Balance	871,968
Net Escalated Expense for Entire Period	\$ 67,366,558
Total Escalated Service Units	37,457
<b>Impact Fee for Service Area G</b>	<b>\$ 1,799</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area G

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
WJ Boaz	E-11, G-1	\$ 14,507,000	50%	\$ 7,253,500	\$ 5,313,252	\$ -	\$ 2,656,626	\$ 2,656,626	\$ 5,313,252
Old Decatur (1)	G-2	306,298	100%	306,298	224,366	-	112,183	112,183	224,366
Cromwell Marine Creek (1)	G-3	6,700,000	100%	6,700,000	4,907,808	-	2,453,904	2,453,904	4,907,808
Cromwell Marine Creek (2)	G-4	2,562,000	100%	2,562,000	1,876,687	-	938,344	938,344	1,876,687
Cromwell Marine Creek (3)	G-5	1,477,000	100%	1,477,000	1,081,915	-	540,958	540,958	1,081,915
Cromwell Marine Creek (4)	G-6	4,426,000	100%	4,426,000	3,242,083	-	1,621,042	1,621,042	3,242,083
Longhorn	G-7	1,810,000	100%	1,810,000	1,325,841	-	662,920	662,920	1,325,841
Ten Mile Bridge (1)	G-8	3,137,000	100%	3,137,000	2,297,880	-	1,148,940	1,148,940	2,297,880
Ten Mile Bridge (2)	G-9	3,495,000	100%	3,495,000	2,560,118	-	1,280,059	1,280,059	2,560,118
Ten Mile Bridge (3)	G-10	2,990,000	100%	2,990,000	2,190,201	-	1,095,100	1,095,100	2,190,201
Ten Mile Bridge (4)	G-11	2,194,000	100%	2,194,000	1,607,124	-	803,562	803,562	1,607,124
Edward Geren (2)	G-12	4,913,000	100%	4,913,000	3,598,815	-	1,799,408	1,799,408	3,598,815
Hodgkins	G-13	5,403,000	100%	5,403,000	3,957,744	-	1,978,872	1,978,872	3,957,744
Marine Creek (1)	G-14	765,744	100%	765,744	560,914	-	280,457	280,457	560,914
Marine Creek (2)	G-15	1,531,489	100%	1,531,489	1,121,829	-	560,914	560,914	1,121,829
Marine Creek (3)	G-16	1,608,063	100%	1,608,063	1,177,920	-	588,960	588,960	1,177,920
Marine Creek (4)	G-17	3,445,850	100%	3,445,850	2,524,115	1,284,196	619,959	619,959	2,524,115
Marine Creek (5)	G-18	6,029,000	100%	6,029,000	4,416,295	4,416,295	-	-	4,416,295
Old Decatur (2)	G-19	1,096,000	100%	1,096,000	802,830	-	401,415	401,415	802,830
Old Decatur (3)	G-20	4,481,000	100%	4,481,000	3,282,371	-	1,641,186	1,641,186	3,282,371
Cromwell Maine Creek		200,000	50%	100,000	18,300	-	9,150	9,150	18,300
Cromwell Marine Creek		500,000	100%	500,000	91,500	-	45,750	45,750	91,500
Longhorn		300,000	75%	225,000	41,175	-	20,588	20,588	41,175
Longhorn		1,500,000	100%	1,500,000	274,500	-	137,250	137,250	274,500
Marine Creek		340,000	100%	340,000	62,220	-	31,110	31,110	62,220
Marine Creek		1,500,000	100%	1,500,000	274,500	-	137,250	137,250	274,500
Robertson		180,000	50%	90,000	16,470	-	8,235	8,235	16,470
Ten Mile Bridge		1,500,000	100%	1,500,000	274,500	-	137,250	137,250	274,500
Ten Mile Bridge		1,200,000	100%	1,200,000	219,600	-	109,800	109,800	219,600
Ten Mile Bridge		1,500,000	100%	1,500,000	274,500	-	137,250	137,250	274,500
WJ Boaz		500,000	25%	125,000	22,875	-	11,438	11,438	22,875
WJ Boaz		500,000	25%	125,000	22,875	-	11,438	11,438	22,875
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 82,621,219		\$ 74,352,719	\$ 49,686,898	#####	\$ 21,981,316	\$ 22,005,091	\$ 49,686,898

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
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Service Area G

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area G) <sup>(1)</sup>	32,057
Annual Growth in Vehicle Miles	<u>10</u> years 3,206

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 861,625	\$ 1,012,229	\$ 1,174,686	\$ 1,337,143	\$ 1,499,600	\$ 1,662,057	\$ 1,198,447	\$ 1,374,831	\$ 1,551,215	\$ 1,727,598	\$ 13,399,431
2017 Vehicle Miles plus Service Area G Growth	1,829,054	1,832,260	1,835,465	1,838,671	1,841,877	1,845,083	1,848,288	1,851,494	1,854,700	1,857,905	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.47	\$ 0.55	\$ 0.64	\$ 0.73	\$ 0.81	\$ 0.90	\$ 0.65	\$ 0.74	\$ 0.84	\$ 0.93	
Annual Growth in Service Area G Vehicle Miles (Cumulative)	3,206	6,411	9,617	12,823	16,029	19,234	22,440	25,646	28,851	32,057	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 1,510	\$ 3,542	\$ 6,155	\$ 9,325	\$ 13,050	\$ 17,326	\$ 14,550	\$ 19,043	\$ 24,130	\$ 29,809	\$ 138,441
Credit Amount	\$ 138,441										

(1) Line 8 of the Max Fee Table Report



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area L

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	268
Existing Fund Balance <sup>(3)</sup>	252,175
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 1,733,872
Non-debt Funded New Project Cost <sup>(5)</sup>	89,466
New Project Cost Funded Through New Debt <sup>(6)</sup>	65,691
Total Recoverable Project Cost <sup>(7)</sup>	\$ 1,889,029

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 6,569	3.25%	20
2	6,569	4.25%	20
3	6,569	5.00%	20
4	6,569	5.00%	20
5	6,569	5.00%	20
6	6,569	5.00%	20
7	6,569	5.00%	20
8	6,569	5.00%	20
9	6,569	5.00%	20
10	6,569	5.00%	20
Total	\$ 65,691		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 11,637
2	15,516
3	15,516
4	15,516
5	15,516
6	15,516
7	15,516
8	15,516
9	15,516
10	19,395
Total	\$ 155,157

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Existing debt funded project costs from details provided by staff.  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area L

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 452	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	452
2	452	494	-	-	-	-	-	-	-	-	946
3	452	494	527	-	-	-	-	-	-	-	1,473
4	452	494	527	527	-	-	-	-	-	-	2,000
5	452	494	527	527	527	-	-	-	-	-	2,527
6	452	494	527	527	527	527	-	-	-	-	3,054
7	452	494	527	527	527	527	527	-	-	-	3,582
8	452	494	527	527	527	527	527	527	-	-	4,109
9	452	494	527	527	527	527	527	527	527	-	4,636
10	452	494	527	527	527	527	527	527	527	527	5,163
11	452	494	527	527	527	527	527	527	527	527	5,163
12	452	494	527	527	527	527	527	527	527	527	5,163
13	452	494	527	527	527	527	527	527	527	527	5,163
14	452	494	527	527	527	527	527	527	527	527	5,163
15	452	494	527	527	527	527	527	527	527	527	5,163
16	452	494	527	527	527	527	527	527	527	527	5,163
17	452	494	527	527	527	527	527	527	527	527	5,163
18	452	494	527	527	527	527	527	527	527	527	5,163
19	452	494	527	527	527	527	527	527	527	527	5,163
20	452	494	527	527	527	527	527	527	527	527	5,163
21	-	494	527	527	527	527	527	527	527	527	4,711
22	-	-	527	527	527	527	527	527	527	527	4,217
23	-	-	-	527	527	527	527	527	527	527	3,690
24	-	-	-	-	527	527	527	527	527	527	3,163
25	-	-	-	-	-	527	527	527	527	527	2,636
26	-	-	-	-	-	-	527	527	527	527	2,108
27	-	-	-	-	-	-	-	527	527	527	1,581
28	-	-	-	-	-	-	-	-	527	527	1,054
29	-	-	-	-	-	-	-	-	-	527	527
	\$ 9,036	\$ 9,883	\$ 10,542	\$ 10,542	\$ 10,542	\$ 10,542	\$ 10,542	\$ 10,542	\$ 10,542	\$ 10,542	103,258

City of Fort Worth - 2017 Transportation Impact Fee Study  
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Appendix E - Impact Fee Calculation Assumptions

II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 452	\$ 11,637	\$ (6,569)	\$ 116,834	\$ (17)	\$ 122,337
2	946	15,516	(6,569)	122,500	(36)	132,356
3	1,473	15,516	(6,569)	117,138	(52)	127,505
4	2,000	15,516	(6,569)	113,105	(68)	123,984
5	2,527	15,516	(6,569)	109,133	(82)	120,525
6	3,054	15,516	(6,569)	107,940	(98)	119,843
7	3,582	15,516	(6,569)	103,949	(111)	116,366
8	4,109	15,516	(6,569)	99,952	(122)	112,885
9	4,636	15,516	(6,569)	95,966	(133)	109,415
10	5,163	19,395	(6,569)	88,555	(138)	106,406
11	5,163	-	-	56,033	-	61,196
12	5,163	-	-	30,997	-	36,159
13	5,163	-	-	29,521	-	34,684
14	5,163	-	-	28,283	-	33,445
15	5,163	-	-	27,059	-	32,222
16	5,163	-	-	6,578	-	11,741
17	5,163	-	-	6,043	-	11,206
18	5,163	-	-	5,848	-	11,011
19	5,163	-	-	485	-	5,648
20	5,163	-	-	-	-	5,163
21	4,711	-	-	-	-	4,711
22	4,217	-	-	-	-	4,217
23	3,690	-	-	-	-	3,690
24	3,163	-	-	-	-	3,163
25	2,636	-	-	-	-	2,636
26	2,108	-	-	-	-	2,108
27	1,581	-	-	-	-	1,581
28	1,054	-	-	-	-	1,054
29	527	-	-	-	-	527
	\$ 103,258	\$ 155,157	\$ (65,691)	\$ 1,265,918	\$ (857)	\$ 1,457,785

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2007 CO</u>	<u>2007A GO</u>	<u>2008 GO</u>	<u>2009 GO</u>	<u>2012 GO</u>	<u>2015A GO</u>	<u>2016 GO</u>	<u>TOTAL</u>
2007	-	-						-
2008	32,060	18,468	-					50,528
2009	32,060	12,371	45,029	-				89,460
2010	32,060	12,371	14,087	1,897				60,415
2011	32,060	12,371	14,087	1,897				60,415
2012	32,060	12,371	14,087	1,897	-			60,415
2013	32,060	12,371	14,087	1,897	19,796			80,212
2014	32,060	12,371	14,087	1,897	19,796			80,212
2015	32,060	12,371	14,056	1,897	19,796	-		80,180
2016	32,060	12,371	14,056	1,897	19,820	31,668	-	111,871
2017	32,060	12,371	14,056	1,897	19,796	8,768	1,452	90,400
	\$ 320,602	\$ 129,805	\$ 157,634	\$ 15,174	\$ 99,006	\$ 40,435	\$ 1,452	\$ 764,108

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	1,733,872
-Less Principal PTD	764,108
Outstanding Debt Principal	969,764
New Project Costs Debt Principal(5)	65,691
<b>Principal Component</b>	<b>\$ 1,035,455</b>

(1) Appendix E - Service Area L, Page 2

(2) Appendix E - Service Area L, Page 1

(3) Existing debt funded project costs from details provided by staff.

(4) Appendix E - Service Area L, Page 8

(5) Appendix E - Service Area L, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area L

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 252,175
1	\$ 441	268	\$ 118,361	\$ 122,337	\$ (3,975)	1,626	249,826
2	441	268	118,361	132,356	(13,995)	1,578	237,409
3	441	268	118,361	127,505	(9,144)	1,513	229,779
4	441	268	118,361	123,984	(5,623)	1,475	225,631
5	441	268	118,361	120,525	(2,164)	1,460	224,927
6	441	268	118,361	119,843	(1,482)	1,457	224,903
7	441	268	118,361	116,366	1,995	1,468	228,366
8	441	268	118,361	112,885	5,477	1,502	235,345
9	441	268	118,361	109,415	8,946	1,559	245,850
10	441	268	118,361	106,406	11,955	1,637	259,442
11	-	-	-	61,196	(61,196)	1,487	199,734
12	-	-	-	36,159	(36,159)	1,181	164,755
13	-	-	-	34,684	(34,684)	958	131,029
14	-	-	-	33,445	(33,445)	743	98,326
15	-	-	-	32,222	(32,222)	534	66,639
16	-	-	-	11,741	(11,741)	395	55,293
17	-	-	-	11,206	(11,206)	323	44,410
18	-	-	-	11,011	(11,011)	253	33,652
19	-	-	-	5,648	(5,648)	200	28,205
20	-	-	-	5,163	(5,163)	167	23,208
21	-	-	-	4,711	(4,711)	136	18,633
22	-	-	-	4,217	(4,217)	107	14,523
23	-	-	-	3,690	(3,690)	82	10,916
24	-	-	-	3,163	(3,163)	61	7,814
25	-	-	-	2,636	(2,636)	42	5,220
26	-	-	-	2,108	(2,108)	27	3,139
27	-	-	-	1,581	(1,581)	15	1,573
28	-	-	-	1,054	(1,054)	7	525
29	-	-	-	527	(527)	2	-
			1,183,613	1,457,785		21,997	

City of Fort Worth - 2017 Transportation Impact Fee Study  
 Capital Improvement Plan for Impact Fees  
 Appendix E - Impact Fee Calculation Assumptions  
 Service Area L

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	268	323	\$ 122,337	\$ 147,147
2	28	1.1950	1.0000	268	321	132,356	158,170
3	27	1.1873	1.0000	268	319	127,505	151,389
4	26	1.1797	1.0000	268	317	123,984	146,258
5	25	1.1720	1.0000	268	315	120,525	141,259
6	24	1.1645	1.0000	268	313	119,843	139,553
7	23	1.1569	1.0000	268	311	116,366	134,629
8	22	1.1495	1.0000	268	309	112,885	129,758
9	21	1.1420	1.0000	268	307	109,415	124,957
10	20	1.1347	1.0000	268	305	106,406	120,736
11	19	1.1273	1.0000	-	-	61,196	68,989
12	18	1.1201	1.0000	-	-	36,159	40,501
13	17	1.1128	1.0000	-	-	34,684	38,598
14	16	1.1056	1.0000	-	-	33,445	36,979
15	15	1.0985	1.0000	-	-	32,222	35,396
16	14	1.0914	1.0000	-	-	11,741	12,814
17	13	1.0844	1.0000	-	-	11,206	12,151
18	12	1.0774	1.0000	-	-	11,011	11,863
19	11	1.0704	1.0000	-	-	5,648	6,045
20	10	1.0635	1.0000	-	-	5,163	5,491
21	9	1.0566	1.0000	-	-	4,711	4,978
22	8	1.0498	1.0000	-	-	4,217	4,427
23	7	1.0430	1.0000	-	-	3,690	3,849
24	6	1.0363	1.0000	-	-	3,163	3,277
25	5	1.0296	1.0000	-	-	2,636	2,714
26	4	1.0229	1.0000	-	-	2,108	2,157
27	3	1.0163	1.0000	-	-	1,581	1,607
28	2	1.0098	1.0000	-	-	1,054	1,065
29	1	1.0033	1.0000	-	-	527	529
						3,136	1,457,785
							1,687,286

Total Escalated Expense for Entire Period	\$ 1,687,286
Less Future Value of Initial Fund Balance	304,300
Net Escalated Expense for Entire Period	\$ 1,382,986
Total Escalated Service Units	3,136
<b>Impact Fee for Service Area L</b>	<b>\$ 441</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area L

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
1st (1)	L-1	\$ 457,890	100%	\$ 457,890	\$ 258,026	\$ 258,026	\$ -	\$ -	\$ 258,026
1st (2)	L-2	1,343,143	100%	1,343,143	756,877	756,877	-	-	756,877
1st (3)	L-3	1,251,565	100%	1,251,565	705,271	705,271	-	-	705,271
1st		180,000	50%	90,000	3,510	-	1,755	1,755	3,510
Bridge		180,000	100%	180,000	7,020	-	3,510	3,510	7,020
Randol Mill		590,000	100%	590,000	23,010	-	11,505	11,505	23,010
Randol Mill		360,000	100%	360,000	14,040	-	7,020	7,020	14,040
1st		2,500,000	100%	2,500,000	97,500	13,698	41,901	41,901	97,500
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 6,886,373		\$ 6,796,373	\$ 1,889,029	\$ 1,733,872	\$ 65,691	\$ 89,466	\$ 1,889,029

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing



City of Fort Worth - 2017 Transportation Impact Fee Study  
 Capital Improvement Plan for Impact Fees  
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 Service Area L

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area L) <sup>(1)</sup>	2,684
Annual Growth in Vehicle Miles	<u>10</u> years 268

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 117,286	\$ 123,446	\$ 118,611	\$ 115,105	\$ 111,660	\$ 110,994	\$ 107,530	\$ 104,060	\$ 100,601	\$ 93,718	\$ 1,103,013
2017 Vehicle Miles plus Service Area L Growth	1,826,117	1,826,385	1,826,654	1,826,922	1,827,190	1,827,459	1,827,727	1,827,996	1,828,264	1,828,532	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.06	\$ 0.07	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.06	\$ 0.05	
Annual Growth in Service Area L Vehicle Miles (Cumulative)	268	537	805	1,074	1,342	1,610	1,879	2,147	2,416	2,684	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 17	\$ 36	\$ 52	\$ 68	\$ 82	\$ 98	\$ 111	\$ 122	\$ 133	\$ 138	\$ 857
Credit Amount	\$ 857										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area M

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	1,978
Existing Fund Balance <sup>(3)</sup>	292,876
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 2,044,467
Non-debt Funded New Project Cost <sup>(5)</sup>	24,813,862
New Project Cost Funded Through New Debt <sup>(6)</sup>	24,774,674
Total Recoverable Project Cost <sup>(7)</sup>	\$ 51,633,003

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 2,477,467	3.25%	20
2	2,477,467	4.25%	20
3	2,477,467	5.00%	20
4	2,477,467	5.00%	20
5	2,477,467	5.00%	20
6	2,477,467	5.00%	20
7	2,477,467	5.00%	20
8	2,477,467	5.00%	20
9	2,477,467	5.00%	20
10	2,477,467	5.00%	20
Total	\$ 24,774,674		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 3,719,140
2	4,958,854
3	4,958,854
4	4,958,854
5	4,958,854
6	4,958,854
7	4,958,854
8	4,958,854
9	4,958,854
10	6,198,567
Total	\$ 49,588,536

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Existing debt funded project costs from details provided by staff.  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area M

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 170,397	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,397
2	170,397	186,355	-	-	-	-	-	-	-	-	356,752
3	170,397	186,355	198,798	-	-	-	-	-	-	-	555,551
4	170,397	186,355	198,798	198,798	-	-	-	-	-	-	754,349
5	170,397	186,355	198,798	198,798	198,798	-	-	-	-	-	953,147
6	170,397	186,355	198,798	198,798	198,798	198,798	-	-	-	-	1,151,946
7	170,397	186,355	198,798	198,798	198,798	198,798	198,798	-	-	-	1,350,744
8	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	-	-	1,549,542
9	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	-	1,748,341
10	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
11	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
12	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
13	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
14	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
15	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
16	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
17	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
18	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
19	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
20	170,397	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,947,139
21	-	186,355	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,776,742
22	-	-	198,798	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,590,387
23	-	-	-	198,798	198,798	198,798	198,798	198,798	198,798	198,798	1,391,589
24	-	-	-	-	198,798	198,798	198,798	198,798	198,798	198,798	1,192,790
25	-	-	-	-	-	198,798	198,798	198,798	198,798	198,798	993,992
26	-	-	-	-	-	-	198,798	198,798	198,798	198,798	795,194
27	-	-	-	-	-	-	-	198,798	198,798	198,798	596,395
28	-	-	-	-	-	-	-	-	198,798	198,798	397,597
29	-	-	-	-	-	-	-	-	-	198,798	198,798
	\$ 3,407,949	\$ 3,727,094	\$ 3,975,968	\$ 3,975,968	\$ 3,975,968	\$ 3,975,968	\$ 3,975,968	\$ 3,975,968	\$ 3,975,968	\$ 3,975,968	\$ 38,942,785

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Appendix E - Impact Fee Calculation Assumptions**

**II. Summary of Annual Expenses**

<b>Year</b>	<b>New Annual Debt Service<sup>(1)</sup></b>	<b>Annual Capital Expenditures<sup>(2)</sup></b>	<b>Annual Bond Proceeds<sup>(2)</sup></b>	<b>Existing Annual Debt Service<sup>(3)</sup></b>	<b>Annual Credit<sup>(4)</sup></b>	<b>Total Expense</b>
<b>1</b>	\$ 170,397	\$ 3,719,140	\$ (2,477,467)	\$ 136,092	\$ (332)	\$ 1,547,831
<b>2</b>	356,752	4,958,854	(2,477,467)	157,231	(1,111)	2,994,258
<b>3</b>	555,551	4,958,854	(2,477,467)	148,849	(2,282)	3,183,505
<b>4</b>	754,349	4,958,854	(2,477,467)	143,995	(3,876)	3,375,855
<b>5</b>	953,147	4,958,854	(2,477,467)	137,346	(5,874)	3,566,005
<b>6</b>	1,151,946	4,958,854	(2,477,467)	132,254	(8,292)	3,757,293
<b>7</b>	1,350,744	4,958,854	(2,477,467)	127,491	(11,124)	3,948,497
<b>8</b>	1,549,542	4,958,854	(2,477,467)	122,726	(14,367)	4,139,288
<b>9</b>	1,748,341	4,958,854	(2,477,467)	117,969	(18,019)	4,329,677
<b>10</b>	1,947,139	6,198,567	(2,477,467)	110,858	(22,053)	5,757,044
<b>11</b>	1,947,139	-	-	104,193	-	2,051,332
<b>12</b>	1,947,139	-	-	53,460	-	2,000,599
<b>13</b>	1,947,139	-	-	34,163	-	1,981,303
<b>14</b>	1,947,139	-	-	32,689	-	1,979,829
<b>15</b>	1,947,139	-	-	31,210	-	1,978,350
<b>16</b>	1,947,139	-	-	4,726	-	1,951,865
<b>17</b>	1,947,139	-	-	3,861	-	1,951,000
<b>18</b>	1,947,139	-	-	3,737	-	1,950,876
<b>19</b>	1,947,139	-	-	78	-	1,947,217
<b>20</b>	1,947,139	-	-	-	-	1,947,139
<b>21</b>	1,776,742	-	-	-	-	1,776,742
<b>22</b>	1,590,387	-	-	-	-	1,590,387
<b>23</b>	1,391,589	-	-	-	-	1,391,589
<b>24</b>	1,192,790	-	-	-	-	1,192,790
<b>25</b>	993,992	-	-	-	-	993,992
<b>26</b>	795,194	-	-	-	-	795,194
<b>27</b>	596,395	-	-	-	-	596,395
<b>28</b>	397,597	-	-	-	-	397,597
<b>29</b>	198,798	-	-	-	-	198,798
	<b>\$ 38,942,785</b>	<b>\$ 49,588,536</b>	<b>\$ (24,774,674)</b>	<b>\$ 1,602,929</b>	<b>\$ (87,329)</b>	<b>\$ 65,272,248</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2007A GO</u>	<u>2008 GO</u>	<u>2009 GO</u>	<u>2009 CO</u>	<u>2012 GO</u>	<u>2013 GO</u>	<u>2015A GO</u>	<u>2016 GO</u>	<u>TOTAL</u>
2007	-								-
2008	45,261	-							45,261
2009	30,319	16,336	-	-					46,655
2010	30,319	5,111	305	59,676					95,412
2011	30,319	5,111	305	32,208					67,944
2012	30,319	5,111	305	32,208	-				67,944
2013	30,319	5,111	305	32,208	25,692	-			93,636
2014	30,319	5,111	305	32,208	25,692	3,950			97,586
2015	30,319	5,099	305	32,164	25,692	3,944	-		97,525
2016	30,319	5,099	305	32,164	25,722	4,028	21,647	-	119,285
2017	30,319	5,099	305	21,133	25,692	4,123	5,993	234	92,899
	\$ 318,135	\$ 57,187	\$ 2,444	\$ 273,971	\$ 128,492	\$ 16,045	\$ 27,640	\$ 234	\$ 824,148

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	2,044,467
-Less Principal PTD	824,148
Outstanding Debt Principal	1,220,319
New Project Costs Debt Principal(5)	24,774,674
<b>Principal Component</b>	<b>\$ 25,994,993</b>

(1) Appendix E - Service Area M, Page 2

(2) Appendix E - Service Area M, Page 1

(3) Existing debt funded project costs from details provided by staff.

(4) Appendix E - Service Area M, Page 8

(5) Appendix E - Service Area M, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area M

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 292,876
1	\$ 3,164	1,978	\$ 6,256,884	\$ 1,547,831	\$ 4,709,053	17,208	5,019,137
2	3,164	1,978	6,256,884	2,994,258	3,262,626	43,228	8,324,991
3	3,164	1,978	6,256,884	3,183,505	3,073,380	64,101	11,462,471
4	3,164	1,978	6,256,884	3,375,855	2,881,029	83,869	14,427,370
5	3,164	1,978	6,256,884	3,566,005	2,690,879	102,523	17,220,772
6	3,164	1,978	6,256,884	3,757,293	2,499,591	120,059	19,840,422
7	3,164	1,978	6,256,884	3,948,497	2,308,387	136,465	22,285,274
8	3,164	1,978	6,256,884	4,139,288	2,117,596	151,736	24,554,606
9	3,164	1,978	6,256,884	4,329,677	1,927,207	165,868	26,647,682
10	3,164	1,978	6,256,884	5,757,044	499,840	174,834	27,322,356
11	-	-	-	2,051,332	(2,051,332)	170,928	25,441,953
12	-	-	-	2,000,599	(2,000,599)	158,871	23,600,225
13	-	-	-	1,981,303	(1,981,303)	146,962	21,765,884
14	-	-	-	1,979,829	(1,979,829)	135,044	19,921,100
15	-	-	-	1,978,350	(1,978,350)	123,058	18,065,807
16	-	-	-	1,951,865	(1,951,865)	111,084	16,225,027
17	-	-	-	1,951,000	(1,951,000)	99,122	14,373,148
18	-	-	-	1,950,876	(1,950,876)	87,085	12,509,357
19	-	-	-	1,947,217	(1,947,217)	74,982	10,637,122
20	-	-	-	1,947,139	(1,947,139)	62,813	8,752,796
21	-	-	-	1,776,742	(1,776,742)	51,119	7,027,173
22	-	-	-	1,590,387	(1,590,387)	40,508	5,477,294
23	-	-	-	1,391,589	(1,391,589)	31,080	4,116,785
24	-	-	-	1,192,790	(1,192,790)	22,883	2,946,877
25	-	-	-	993,992	(993,992)	15,924	1,968,809
26	-	-	-	795,194	(795,194)	10,213	1,183,828
27	-	-	-	596,395	(596,395)	5,757	593,190
28	-	-	-	397,597	(397,597)	2,564	198,156
29	-	-	-	198,798	(198,798)	642	-
			62,568,842	65,272,248		2,410,530	

City of Fort Worth - 2017 Transportation Impact Fee Study  
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 Service Area M

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	1,978	2,379	\$ 1,547,831	\$ 1,861,738
2	28	1.1950	1.0000	1,978	2,363	2,994,258	3,578,248
3	27	1.1873	1.0000	1,978	2,348	3,183,505	3,779,836
4	26	1.1797	1.0000	1,978	2,333	3,375,855	3,982,332
5	25	1.1720	1.0000	1,978	2,318	3,566,005	4,179,476
6	24	1.1645	1.0000	1,978	2,303	3,757,293	4,375,233
7	23	1.1569	1.0000	1,978	2,288	3,948,497	4,568,190
8	22	1.1495	1.0000	1,978	2,273	4,139,288	4,757,997
9	21	1.1420	1.0000	1,978	2,259	4,329,677	4,944,704
10	20	1.1347	1.0000	1,978	2,244	5,757,044	6,532,366
11	19	1.1273	1.0000	-	-	2,051,332	2,312,561
12	18	1.1201	1.0000	-	-	2,000,599	2,240,802
13	17	1.1128	1.0000	-	-	1,981,303	2,204,857
14	16	1.1056	1.0000	-	-	1,979,829	2,188,988
15	15	1.0985	1.0000	-	-	1,978,350	2,173,227
16	14	1.0914	1.0000	-	-	1,951,865	2,130,287
17	13	1.0844	1.0000	-	-	1,951,000	2,115,592
18	12	1.0774	1.0000	-	-	1,950,876	2,101,796
19	11	1.0704	1.0000	-	-	1,947,217	2,084,306
20	10	1.0635	1.0000	-	-	1,947,139	2,070,762
21	9	1.0566	1.0000	-	-	1,776,742	1,877,343
22	8	1.0498	1.0000	-	-	1,590,387	1,669,585
23	7	1.0430	1.0000	-	-	1,391,589	1,451,452
24	6	1.0363	1.0000	-	-	1,192,790	1,236,067
25	5	1.0296	1.0000	-	-	993,992	1,023,404
26	4	1.0229	1.0000	-	-	795,194	813,436
27	3	1.0163	1.0000	-	-	596,395	606,137
28	2	1.0098	1.0000	-	-	397,597	401,482
29	1	1.0033	1.0000	-	-	198,798	199,444
						23,109	73,461,648

Total Escalated Expense for Entire Period	\$ 73,461,648
Less Future Value of Initial Fund Balance	353,414
Net Escalated Expense for Entire Period	\$ 73,108,234
Total Escalated Service Units	23,109
<b>Impact Fee for Service Area M</b>	<b>\$ 3,164</b>



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### Service Area M

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Pipeline (1)	M-1	\$ 1,550,000	100%	\$ 1,550,000	\$ 763,405	\$ -	\$ 381,703	\$ 381,703	\$ 763,405
Trinity (1)	M-2	11,416,000	100%	11,416,000	5,622,601	-	2,811,301	2,811,301	5,622,601
Trinity (2)	M-3	647,647	100%	647,647	318,979	-	159,489	159,489	318,979
Trinity (3)	M-4	215,882	100%	215,882	106,326	-	53,163	53,163	106,326
Trinity (4)	M-5	8,238,000	100%	8,238,000	4,057,375	-	2,028,687	2,028,687	4,057,375
Trinity (5)	M-6	3,231,000	100%	3,231,000	1,591,330	-	795,665	795,665	1,591,330
Trinity (6)	M-7	2,319,000	100%	2,319,000	1,142,152	-	571,076	571,076	1,142,152
Trinity (7)	M-8	6,714,000	100%	6,714,000	3,306,775	-	1,653,388	1,653,388	3,306,775
Randol Mill (1)	M-9	6,413,000	100%	6,413,000	3,158,527	-	1,579,263	1,579,263	3,158,527
Randol Mill (2)	M-10	3,571,000	100%	3,571,000	1,758,787	-	879,393	879,393	1,758,787
Randol Mill (3)	M-11	7,798,000	100%	7,798,000	3,840,666	-	1,920,333	1,920,333	3,840,666
Randol Mill (4)	M-12	1,204,000	100%	1,204,000	592,993	-	296,497	296,497	592,993
Randol Mill (5)	M-13	942,000	100%	942,000	463,953	-	231,977	231,977	463,953
Sandy (1)	M-14	639,000	100%	639,000	314,720	-	157,360	157,360	314,720
Sandy (2)	M-15	5,289,000	100%	5,289,000	2,604,935	-	1,302,468	1,302,468	2,604,935
Sandy (3)	M-16	5,396,000	100%	5,396,000	2,657,635	-	1,328,817	1,328,817	2,657,635
Precinct Line (1)	M-17	743,594	100%	743,594	366,235	366,235	-	-	366,235
Precinct Line (2)	M-18	791,568	100%	791,568	389,863	374,449	-	15,414	389,863
Precinct Line (3)	M-19	11,987,000	100%	11,987,000	5,903,830	811,264	2,546,283	2,546,283	5,903,830
Precinct Line (4)	M-20	2,938,000	100%	2,938,000	1,447,022	-	723,511	723,511	1,447,022
Cooks (1)	M-21	3,058,000	100%	3,058,000	1,506,124	-	753,062	753,062	1,506,124
Norwood (1)	M-22	1,993,000	100%	1,993,000	981,591	-	490,796	490,796	981,591
Norwood (2)	M-23	1,000,000	100%	1,000,000	492,519	492,519	-	-	492,519
Greenbelt Rd	M-24	14,247,000	100%	14,247,000	7,016,924	-	3,508,462	3,508,462	7,016,924
John T White		2,500,000	100%	2,500,000	395,000	-	197,500	197,500	395,000
John T White		720,000	100%	720,000	113,760	-	56,880	56,880	113,760
John T White		1,500,000	100%	1,500,000	237,000	-	118,500	118,500	237,000
Precinct Line		1,000,000	100%	1,000,000	158,000	-	79,000	79,000	158,000
Randol Mill		1,500,000	100%	1,500,000	237,000	-	118,500	118,500	237,000
Trinity		100,000	100%	100,000	15,800	-	7,900	7,900	15,800
Trinity		300,000	100%	300,000	47,400	-	23,700	23,700	47,400
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 109,985,466		\$ 109,985,466	\$ 51,633,003	#####	\$ 24,774,674	\$ 24,813,862	\$ 51,633,003

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
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 Service Area M

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area M) <sup>(1)</sup>	19,778
Annual Growth in Vehicle Miles	<u>10</u> years 1,978

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 306,490	\$ 513,983	\$ 704,400	\$ 898,344	\$ 1,090,493	\$ 1,284,200	\$ 1,478,235	\$ 1,672,268	\$ 1,866,310	\$ 2,057,998	\$ 11,872,721
2017 Vehicle Miles plus Service Area M Growth	1,827,826	1,829,804	1,831,782	1,833,759	1,835,737	1,837,715	1,839,693	1,841,670	1,843,648	1,845,626	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.17	\$ 0.28	\$ 0.38	\$ 0.49	\$ 0.59	\$ 0.70	\$ 0.80	\$ 0.91	\$ 1.01	\$ 1.12	
Annual Growth in Service Area M Vehicle Miles (Cumulative)	1,978	3,956	5,933	7,911	9,889	11,867	13,844	15,822	17,800	19,778	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 332	\$ 1,111	\$ 2,282	\$ 3,876	\$ 5,874	\$ 8,292	\$ 11,124	\$ 14,367	\$ 18,019	\$ 22,053	\$ 87,329
Credit Amount	\$ 87,329										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area N

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	1,726
Existing Fund Balance <sup>(3)</sup>	2,181,034
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ -
Non-debt Funded New Project Cost <sup>(5)</sup>	6,824,573
New Project Cost Funded Through New Debt <sup>(6)</sup>	6,800,798
Total Recoverable Project Cost <sup>(7)</sup>	\$ 13,625,370

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 680,080	3.25%	20
2	680,080	4.25%	20
3	680,080	5.00%	20
4	680,080	5.00%	20
5	680,080	5.00%	20
6	680,080	5.00%	20
7	680,080	5.00%	20
8	680,080	5.00%	20
9	680,080	5.00%	20
10	680,080	5.00%	20
Total	\$ 6,800,798		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 1,021,903
2	1,362,537
3	1,362,537
4	1,362,537
5	1,362,537
6	1,362,537
7	1,362,537
8	1,362,537
9	1,362,537
10	1,703,171
Total	\$ 13,625,370

- (1) Annual return as of 2017  
 (2) Derived from the 10-year Growth Projections Report, Table 7  
 (3) Balances provided by City Staff as of August 2017  
 (4) Not Applicable for this Area  
 (5) Assumes 50% of new project costs funded through sources other than debt  
 (6) Assumes 50% of new project costs funded through new debt issues  
 (7) Line 15 of the Max Fee Table Report  
 (8) Assumes new debt issued in equal annual amounts  
 (9) Estimated interest cost provided by City Staff  
 (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area N

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 46,775	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46,775
2	46,775	51,155	-	-	-	-	-	-	-	-	97,931
3	46,775	51,155	54,571	-	-	-	-	-	-	-	152,502
4	46,775	51,155	54,571	54,571	-	-	-	-	-	-	207,073
5	46,775	51,155	54,571	54,571	54,571	-	-	-	-	-	261,645
6	46,775	51,155	54,571	54,571	54,571	54,571	-	-	-	-	316,216
7	46,775	51,155	54,571	54,571	54,571	54,571	54,571	-	-	-	370,787
8	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	-	-	425,359
9	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	-	479,930
10	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
11	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
12	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
13	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
14	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
15	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
16	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
17	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
18	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
19	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
20	46,775	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	534,501
21	-	51,155	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	487,726
22	-	-	54,571	54,571	54,571	54,571	54,571	54,571	54,571	54,571	436,571
23	-	-	-	54,571	54,571	54,571	54,571	54,571	54,571	54,571	382,000
24	-	-	-	-	54,571	54,571	54,571	54,571	54,571	54,571	327,428
25	-	-	-	-	-	54,571	54,571	54,571	54,571	54,571	272,857
26	-	-	-	-	-	-	54,571	54,571	54,571	54,571	218,285
27	-	-	-	-	-	-	-	54,571	54,571	54,571	163,714
28	-	-	-	-	-	-	-	-	54,571	54,571	109,143
29	-	-	-	-	-	-	-	-	-	54,571	54,571
	\$ 935,503	\$ 1,023,110	\$ 1,091,427	\$ 1,091,427	\$ 1,091,427	\$ 1,091,427	\$ 1,091,427	\$ 1,091,427	\$ 1,091,427	\$ 1,091,427	\$ 10,690,030

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II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 46,775	\$ 1,021,903	\$ (680,080)	\$ -	\$ (44)	\$ 388,554
2	97,931	1,362,537	(680,080)	-	(185)	780,203
3	152,502	1,362,537	(680,080)	-	(431)	834,528
4	207,073	1,362,537	(680,080)	-	(780)	888,751
5	261,645	1,362,537	(680,080)	-	(1,231)	942,871
6	316,216	1,362,537	(680,080)	-	(1,783)	996,890
7	370,787	1,362,537	(680,080)	-	(2,437)	1,050,807
8	425,359	1,362,537	(680,080)	-	(3,192)	1,104,624
9	479,930	1,362,537	(680,080)	-	(4,048)	1,158,339
10	534,501	1,703,171	(680,080)	-	(5,005)	1,552,588
11	534,501	-	-	-	-	534,501
12	534,501	-	-	-	-	534,501
13	534,501	-	-	-	-	534,501
14	534,501	-	-	-	-	534,501
15	534,501	-	-	-	-	534,501
16	534,501	-	-	-	-	534,501
17	534,501	-	-	-	-	534,501
18	534,501	-	-	-	-	534,501
19	534,501	-	-	-	-	534,501
20	534,501	-	-	-	-	534,501
21	487,726	-	-	-	-	487,726
22	436,571	-	-	-	-	436,571
23	382,000	-	-	-	-	382,000
24	327,428	-	-	-	-	327,428
25	272,857	-	-	-	-	272,857
26	218,285	-	-	-	-	218,285
27	163,714	-	-	-	-	163,714
28	109,143	-	-	-	-	109,143
29	54,571	-	-	-	-	54,571
	\$ 10,690,030	\$ 13,625,370	\$ (6,800,798)	\$ -	\$ (19,137)	\$ 17,495,465

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**III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>**

The projects related to this area have not been previously funded with debt.

**IV. Summary of Debt Financing**

Existing Debt Funded Project Costs <sup>(5)</sup>	-
-Less Principal PTD	-
Outstanding Debt Principal	-
New Project Costs Debt Principal <sup>(5)</sup>	6,800,798
<b>Principal Component</b>	<b>\$ 6,800,798</b>

(1) Appendix E - Service Area N, Page 2

(2) Appendix E - Service Area N, Page 1

(3) Not Applicable for this Area

(4) Appendix E - Service Area N, Page 8

(5) Appendix E - Service Area N, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area N

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 2,181,034
1	\$ 845	1,726	\$ 1,458,656	\$ 388,554	\$ 1,070,102	17,655	3,268,791
2	845	1,726	1,458,656	780,203	678,453	23,452	3,970,696
3	845	1,726	1,458,656	834,528	624,128	27,838	4,622,661
4	845	1,726	1,458,656	888,751	569,905	31,899	5,224,466
5	845	1,726	1,458,656	942,871	515,785	35,635	5,775,886
6	845	1,726	1,458,656	996,890	461,766	39,044	6,276,696
7	845	1,726	1,458,656	1,050,807	407,849	42,124	6,726,669
8	845	1,726	1,458,656	1,104,624	354,032	44,874	7,125,575
9	845	1,726	1,458,656	1,158,339	300,317	47,292	7,473,185
10	845	1,726	1,458,656	1,552,588	(93,932)	48,270	7,427,523
11	-	-	-	534,501	(534,501)	46,542	6,939,563
12	-	-	-	534,501	(534,501)	43,370	6,448,432
13	-	-	-	534,501	(534,501)	40,178	5,954,108
14	-	-	-	534,501	(534,501)	36,965	5,456,571
15	-	-	-	534,501	(534,501)	33,731	4,955,800
16	-	-	-	534,501	(534,501)	30,476	4,451,774
17	-	-	-	534,501	(534,501)	27,199	3,944,472
18	-	-	-	534,501	(534,501)	23,902	3,433,873
19	-	-	-	534,501	(534,501)	20,583	2,919,954
20	-	-	-	534,501	(534,501)	17,243	2,402,695
21	-	-	-	487,726	(487,726)	14,032	1,929,001
22	-	-	-	436,571	(436,571)	11,120	1,503,550
23	-	-	-	382,000	(382,000)	8,532	1,130,082
24	-	-	-	327,428	(327,428)	6,281	808,935
25	-	-	-	272,857	(272,857)	4,371	540,450
26	-	-	-	218,285	(218,285)	2,803	324,968
27	-	-	-	163,714	(163,714)	1,580	162,834
28	-	-	-	109,143	(109,143)	704	54,395
29	-	-	-	54,571	(54,571)	176	-
			14,586,560	17,495,465		727,871	



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Service Area N

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	1,726	2,076	\$ 388,554	\$ 467,354
2	28	1.1950	1.0000	1,726	2,062	780,203	932,371
3	27	1.1873	1.0000	1,726	2,049	834,528	990,851
4	26	1.1797	1.0000	1,726	2,036	888,751	1,048,416
5	25	1.1720	1.0000	1,726	2,023	942,871	1,105,076
6	24	1.1645	1.0000	1,726	2,010	996,890	1,160,843
7	23	1.1569	1.0000	1,726	1,997	1,050,807	1,215,725
8	22	1.1495	1.0000	1,726	1,984	1,104,624	1,269,734
9	21	1.1420	1.0000	1,726	1,971	1,158,339	1,322,880
10	20	1.1347	1.0000	1,726	1,958	1,552,588	1,761,681
11	19	1.1273	1.0000	-	-	534,501	602,568
12	18	1.1201	1.0000	-	-	534,501	598,677
13	17	1.1128	1.0000	-	-	534,501	594,810
14	16	1.1056	1.0000	-	-	534,501	590,969
15	15	1.0985	1.0000	-	-	534,501	587,153
16	14	1.0914	1.0000	-	-	534,501	583,361
17	13	1.0844	1.0000	-	-	534,501	579,593
18	12	1.0774	1.0000	-	-	534,501	575,850
19	11	1.0704	1.0000	-	-	534,501	572,132
20	10	1.0635	1.0000	-	-	534,501	568,437
21	9	1.0566	1.0000	-	-	487,726	515,342
22	8	1.0498	1.0000	-	-	436,571	458,311
23	7	1.0430	1.0000	-	-	382,000	398,432
24	6	1.0363	1.0000	-	-	327,428	339,308
25	5	1.0296	1.0000	-	-	272,857	280,931
26	4	1.0229	1.0000	-	-	218,285	223,293
27	3	1.0163	1.0000	-	-	163,714	166,388
28	2	1.0098	1.0000	-	-	109,143	110,209
29	1	1.0033	1.0000	-	-	54,571	54,749
						20,166	19,675,444

Total Escalated Expense for Entire Period	\$ 19,675,444
Less Future Value of Initial Fund Balance	2,631,855
Net Escalated Expense for Entire Period	\$ 17,043,589
Total Escalated Service Units	20,166
<b>Impact Fee for Service Area N</b>	<b>\$ 845</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area N

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee</u>	<u>Total</u>	<u>Percent in</u>	<u>Cost in</u>	<u>Impact Fee</u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt</u>	<u>Impact Fee</u>
	<u>Project No.<sup>(1)</sup></u>	<u>Project Cost<sup>(1)</sup></u>	<u>Service Area<sup>(1)</sup></u>	<u>Service Area<sup>(1)</sup></u>	<u>Recoverable Cost<sup>(2)</sup></u>	<u>Existing</u>	<u>Proposed</u>	<u>Funded<sup>(3)</sup></u>	<u>Recoverable Cost</u>
Pipeline (2)	N-1	\$ 3,827,000	100%	\$ 3,827,000	\$ 2,188,594	\$ -	\$ 1,094,297	\$ 1,094,297	\$ 2,188,594
Pipeline (3)	N-2	1,851,000	100%	1,851,000	1,058,555	-	529,277	529,277	1,058,555
Pipeline (4)	N-3	1,700,000	100%	1,700,000	972,200	-	486,100	486,100	972,200
Pipeline (5)	N-4	5,960,000	100%	5,960,000	3,408,420	-	1,704,210	1,704,210	3,408,420
Pipeline (6)	N-5	3,642,000	100%	3,642,000	2,082,796	-	1,041,398	1,041,398	2,082,796
House Anderson	N-6	1,470,000	100%	1,470,000	840,667	-	420,334	420,334	840,667
S. Main	N-7	1,021,000	100%	1,021,000	583,892	-	291,946	291,946	583,892
FAA		2,500,000	100%	2,500,000	392,500	-	196,250	196,250	392,500
FAA		705,000	100%	705,000	110,685	-	55,343	55,343	110,685
FAA		2,500,000	100%	2,500,000	392,500	-	196,250	196,250	392,500
Pipeline		500,000	100%	500,000	78,500	-	39,250	39,250	78,500
Pipeline		1,500,000	100%	1,500,000	235,500	-	117,750	117,750	235,500
Pipeline		1,500,000	100%	1,500,000	235,500	-	117,750	117,750	235,500
Pipeline		1,500,000	100%	1,500,000	235,500	-	117,750	117,750	235,500
Sovereign		295,000	100%	295,000	46,315	-	23,158	23,158	46,315
Trinity		750,000	100%	750,000	117,750	-	58,875	58,875	117,750
Trinity		400,000	100%	400,000	62,800	-	31,400	31,400	62,800
Trinity		230,000	100%	230,000	36,110	-	18,055	18,055	36,110
Trinity		655,000	100%	655,000	102,835	-	51,418	51,418	102,835
Trinity		950,000	100%	950,000	149,150	-	74,575	74,575	149,150
Trinity		300,000	100%	300,000	47,100	-	23,550	23,550	47,100
Trinity		295,000	100%	295,000	46,315	-	23,158	23,158	46,315
Trinity		770,000	100%	770,000	120,890	-	60,445	60,445	120,890
Trinity		360,000	100%	360,000	56,520	-	28,260	28,260	56,520
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 35,204,775		\$ 35,204,775	\$ 13,625,370	\$ -	\$ 6,800,798	\$ 6,824,573	\$ 13,625,370

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
 Capital Improvement Plan for Impact Fees  
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 Service Area N

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area N) <sup>(1)</sup>	17,259
Annual Growth in Vehicle Miles	<u>10</u> years 1,726

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 46,775	\$ 97,931	\$ 152,502	\$ 207,073	\$ 261,645	\$ 316,216	\$ 370,787	\$ 425,359	\$ 479,930	\$ 534,501	\$ 2,892,720
2017 Vehicle Miles plus Service Area N Growth	1,827,574	1,829,300	1,831,026	1,832,752	1,834,478	1,836,203	1,837,929	1,839,655	1,841,381	1,843,107	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.03	\$ 0.05	\$ 0.08	\$ 0.11	\$ 0.14	\$ 0.17	\$ 0.20	\$ 0.23	\$ 0.26	\$ 0.29	
Annual Growth in Service Area N Vehicle Miles (Cumulative)	1,726	3,452	5,178	6,903	8,629	10,355	12,081	13,807	15,533	17,259	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 44	\$ 185	\$ 431	\$ 780	\$ 1,231	\$ 1,783	\$ 2,437	\$ 3,192	\$ 4,048	\$ 5,005	\$ 19,137
Credit Amount	\$ 19,137										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area O

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	350
Existing Fund Balance <sup>(3)</sup>	544,910
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ -
Non-debt Funded New Project Cost <sup>(5)</sup>	5,279,731
New Project Cost Funded Through New Debt <sup>(6)</sup>	5,255,956
Total Recoverable Project Cost <sup>(7)</sup>	\$ 10,535,686

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 525,596	3.25%	20
2	525,596	4.25%	20
3	525,596	5.00%	20
4	525,596	5.00%	20
5	525,596	5.00%	20
6	525,596	5.00%	20
7	525,596	5.00%	20
8	525,596	5.00%	20
9	525,596	5.00%	20
10	525,596	5.00%	20
Total	\$ 5,255,956		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 790,176
2	1,053,569
3	1,053,569
4	1,053,569
5	1,053,569
6	1,053,569
7	1,053,569
8	1,053,569
9	1,053,569
10	1,316,961
Total	\$ 10,535,686

- (1) Annual return as of 2017  
 (2) Derived from the 10-year Growth Projections Report, Table 7  
 (3) Balances provided by City Staff as of August 2017  
 (4) Not Applicable for this Area  
 (5) Assumes 50% of new project costs funded through sources other than debt  
 (6) Assumes 50% of new project costs funded through new debt issues  
 (7) Line 15 of the Max Fee Table Report  
 (8) Assumes new debt issued in equal annual amounts  
 (9) Estimated interest cost provided by City Staff  
 (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area O

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 36,150	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,150
2	36,150	39,535	-	-	-	-	-	-	-	-	75,685
3	36,150	39,535	42,175	-	-	-	-	-	-	-	117,860
4	36,150	39,535	42,175	42,175	-	-	-	-	-	-	160,035
5	36,150	39,535	42,175	42,175	42,175	-	-	-	-	-	202,211
6	36,150	39,535	42,175	42,175	42,175	42,175	-	-	-	-	244,386
7	36,150	39,535	42,175	42,175	42,175	42,175	42,175	-	-	-	286,561
8	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	-	-	328,736
9	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	-	370,911
10	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
11	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
12	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
13	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
14	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
15	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
16	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
17	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
18	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
19	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
20	36,150	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	413,086
21	-	39,535	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	376,936
22	-	-	42,175	42,175	42,175	42,175	42,175	42,175	42,175	42,175	337,401
23	-	-	-	42,175	42,175	42,175	42,175	42,175	42,175	42,175	295,226
24	-	-	-	-	42,175	42,175	42,175	42,175	42,175	42,175	253,051
25	-	-	-	-	-	42,175	42,175	42,175	42,175	42,175	210,876
26	-	-	-	-	-	-	42,175	42,175	42,175	42,175	168,701
27	-	-	-	-	-	-	-	42,175	42,175	42,175	126,525
28	-	-	-	-	-	-	-	-	42,175	42,175	84,350
29	-	-	-	-	-	-	-	-	-	42,175	42,175
	\$ 722,998	\$ 790,704	\$ 843,503	\$ 843,503	\$ 843,503	\$ 843,503	\$ 843,503	\$ 843,503	\$ 843,503	\$ 843,503	\$ 8,261,725

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II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 36,150	\$ 790,176	\$ (525,596)	\$ -	\$ (7)	\$ 300,724
2	75,685	1,053,569	(525,596)	-	(29)	603,629
3	117,860	1,053,569	(525,596)	-	(68)	645,766
4	160,035	1,053,569	(525,596)	-	(123)	687,886
5	202,211	1,053,569	(525,596)	-	(194)	729,990
6	244,386	1,053,569	(525,596)	-	(281)	772,078
7	286,561	1,053,569	(525,596)	-	(384)	814,150
8	328,736	1,053,569	(525,596)	-	(504)	856,205
9	370,911	1,053,569	(525,596)	-	(639)	898,245
10	413,086	1,316,961	(525,596)	-	(791)	1,203,661
11	413,086	-	-	-	-	413,086
12	413,086	-	-	-	-	413,086
13	413,086	-	-	-	-	413,086
14	413,086	-	-	-	-	413,086
15	413,086	-	-	-	-	413,086
16	413,086	-	-	-	-	413,086
17	413,086	-	-	-	-	413,086
18	413,086	-	-	-	-	413,086
19	413,086	-	-	-	-	413,086
20	413,086	-	-	-	-	413,086
21	376,936	-	-	-	-	376,936
22	337,401	-	-	-	-	337,401
23	295,226	-	-	-	-	295,226
24	253,051	-	-	-	-	253,051
25	210,876	-	-	-	-	210,876
26	168,701	-	-	-	-	168,701
27	126,525	-	-	-	-	126,525
28	84,350	-	-	-	-	84,350
29	42,175	-	-	-	-	42,175
	\$ 8,261,725	\$ 10,535,686	\$ (5,255,956)	\$ -	\$ (3,019)	\$ 13,538,437

City of Fort Worth - 2017 Transportation Impact Fee Study  
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**III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>**

The projects related to this area have not been previously funded with debt.

**IV. Summary of Debt Financing**

Existing Debt Funded Project Costs <sup>(5)</sup>	-
-Less Principal PTD	-
Outstanding Debt Principal	-
New Project Costs Debt Principal <sup>(5)</sup>	5,255,956
<b>Principal Component</b>	<b>\$ 5,255,956</b>

(1) Appendix E - Service Area O, Page 2

(2) Appendix E - Service Area O, Page 1

(3) Not Applicable for this Area

(4) Appendix E - Service Area O, Page 8

(5) Appendix E - Service Area O, Page 1



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area O

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 544,910
1	\$ 3,560	350	\$ 1,246,815	\$ 300,724	\$ 946,092	6,617	1,497,618
2	3,560	350	1,246,815	603,629	643,186	11,825	2,152,629
3	3,560	350	1,246,815	645,766	601,050	15,946	2,769,625
4	3,560	350	1,246,815	687,886	558,930	19,819	3,348,374
5	3,560	350	1,246,815	729,990	516,826	23,444	3,888,643
6	3,560	350	1,246,815	772,078	474,738	26,819	4,390,200
7	3,560	350	1,246,815	814,150	432,666	29,942	4,852,808
8	3,560	350	1,246,815	856,205	390,610	32,813	5,276,231
9	3,560	350	1,246,815	898,245	348,570	35,428	5,660,230
10	3,560	350	1,246,815	1,203,661	43,155	36,932	5,740,317
11	-	-	-	413,086	(413,086)	35,970	5,363,200
12	-	-	-	413,086	(413,086)	33,518	4,983,632
13	-	-	-	413,086	(413,086)	31,051	4,601,597
14	-	-	-	413,086	(413,086)	28,568	4,217,078
15	-	-	-	413,086	(413,086)	26,068	3,830,060
16	-	-	-	413,086	(413,086)	23,553	3,440,527
17	-	-	-	413,086	(413,086)	21,021	3,048,462
18	-	-	-	413,086	(413,086)	18,472	2,653,848
19	-	-	-	413,086	(413,086)	15,907	2,256,669
20	-	-	-	413,086	(413,086)	13,326	1,856,909
21	-	-	-	376,936	(376,936)	10,845	1,490,817
22	-	-	-	337,401	(337,401)	8,594	1,162,010
23	-	-	-	295,226	(295,226)	6,594	873,377
24	-	-	-	253,051	(253,051)	4,855	625,181
25	-	-	-	210,876	(210,876)	3,378	417,683
26	-	-	-	168,701	(168,701)	2,167	251,150
27	-	-	-	126,525	(126,525)	1,221	125,845
28	-	-	-	84,350	(84,350)	544	42,039
29	-	-	-	42,175	(42,175)	136	-
			12,468,154	13,538,437		525,372	

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 Service Area O

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	350	421	\$ 300,724	\$ 361,712
2	28	1.1950	1.0000	350	419	603,629	721,359
3	27	1.1873	1.0000	350	416	645,766	766,730
4	26	1.1797	1.0000	350	413	687,886	811,465
5	25	1.1720	1.0000	350	410	729,990	855,572
6	24	1.1645	1.0000	350	408	772,078	899,057
7	23	1.1569	1.0000	350	405	814,150	941,925
8	22	1.1495	1.0000	350	403	856,205	984,184
9	21	1.1420	1.0000	350	400	898,245	1,025,840
10	20	1.1347	1.0000	350	397	1,203,661	1,365,762
11	19	1.1273	1.0000	-	-	413,086	465,691
12	18	1.1201	1.0000	-	-	413,086	462,684
13	17	1.1128	1.0000	-	-	413,086	459,696
14	16	1.1056	1.0000	-	-	413,086	456,727
15	15	1.0985	1.0000	-	-	413,086	453,777
16	14	1.0914	1.0000	-	-	413,086	450,847
17	13	1.0844	1.0000	-	-	413,086	447,935
18	12	1.0774	1.0000	-	-	413,086	445,043
19	11	1.0704	1.0000	-	-	413,086	442,168
20	10	1.0635	1.0000	-	-	413,086	439,313
21	9	1.0566	1.0000	-	-	376,936	398,279
22	8	1.0498	1.0000	-	-	337,401	354,203
23	7	1.0430	1.0000	-	-	295,226	307,926
24	6	1.0363	1.0000	-	-	253,051	262,232
25	5	1.0296	1.0000	-	-	210,876	217,116
26	4	1.0229	1.0000	-	-	168,701	172,571
27	3	1.0163	1.0000	-	-	126,525	128,592
28	2	1.0098	1.0000	-	-	84,350	85,174
29	1	1.0033	1.0000	-	-	42,175	42,312
					4,092	13,538,437	15,225,893

Total Escalated Expense for Entire Period	\$ 15,225,893
Less Future Value of Initial Fund Balance	657,543
Net Escalated Expense for Entire Period	\$ 14,568,349
Total Escalated Service Units	4,092
<b>Impact Fee for Service Area O</b>	<b>\$ 3,560</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area O

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Sandy (4)	O-1	\$ 3,274,000	100%	\$ 3,274,000	\$ 2,617,136	\$ -	\$ 1,308,568	\$ 1,308,568	\$ 2,617,136
Cooks (2)	O-2	\$ 6,352,000	100%	6,352,000	5,077,595	-	2,538,798	2,538,798	5,077,595
Cooks (3)	O-3	\$ 851,000	100%	851,000	680,263	-	340,132	340,132	680,263
Cooks (4)	O-4	\$ 2,036,000	100%	2,036,000	1,627,516	-	813,758	813,758	1,627,516
Brentwood Stair		\$ 2,500,000	100%	2,500,000	150,000	-	75,000	75,000	150,000
Dottie Lynn		\$ 500,000	100%	500,000	30,000	-	15,000	15,000	30,000
Ederville		\$ 2,500,000	100%	2,500,000	150,000	-	75,000	75,000	150,000
Ederville		\$ 770,000	100%	770,000	46,200	-	23,100	23,100	46,200
Ederville		\$ 1,500,000	100%	1,500,000	90,000	-	45,000	45,000	90,000
Lancaster		\$ 180,000	100%	180,000	10,800	-	5,400	5,400	10,800
Meadowbrook		\$ 180,000	100%	180,000	10,800	-	5,400	5,400	10,800
Meadowbrook		\$ 360,000	100%	360,000	21,600	-	10,800	10,800	21,600
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 21,026,775		\$ 21,026,775	\$ 10,535,686	\$ -	\$ 5,255,956	\$ 5,279,731	\$ 10,535,686

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
 Capital Improvement Plan for Impact Fees  
 Appendix E - Impact Fee Calculation Assumptions  
 Service Area O

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area O) <sup>(1)</sup>	3,502
Annual Growth in Vehicle Miles	<u>10</u> years 350

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 36,150	\$ 75,685	\$ 117,860	\$ 160,035	\$ 202,211	\$ 244,386	\$ 286,561	\$ 328,736	\$ 370,911	\$ 413,086	\$ 2,235,621
2017 Vehicle Miles plus Service Area O Growth	1,826,199	1,826,549	1,826,899	1,827,249	1,827,599	1,827,950	1,828,300	1,828,650	1,829,000	1,829,350	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.02	\$ 0.04	\$ 0.06	\$ 0.09	\$ 0.11	\$ 0.13	\$ 0.16	\$ 0.18	\$ 0.20	\$ 0.23	
Annual Growth in Service Area O Vehicle Miles (Cumulative)	350	700	1,051	1,401	1,751	2,101	2,451	2,802	3,152	3,502	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 7	\$ 29	\$ 68	\$ 123	\$ 194	\$ 281	\$ 384	\$ 504	\$ 639	\$ 791	\$ 3,019
Credit Amount	\$ 3,019										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area PI

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	1,965
Existing Fund Balance <sup>(3)</sup>	-
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ -
Non-debt Funded New Project Cost <sup>(5)</sup>	3,907,403
New Project Cost Funded Through New Debt <sup>(6)</sup>	3,907,403
Total Recoverable Project Cost <sup>(7)</sup>	\$ 7,814,805

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 390,740	3.25%	20
2	390,740	4.25%	20
3	390,740	5.00%	20
4	390,740	5.00%	20
5	390,740	5.00%	20
6	390,740	5.00%	20
7	390,740	5.00%	20
8	390,740	5.00%	20
9	390,740	5.00%	20
10	390,740	5.00%	20
Total	\$ 3,907,403		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 586,110
2	781,481
3	781,481
4	781,481
5	781,481
6	781,481
7	781,481
8	781,481
9	781,481
10	976,851
Total	\$ 7,814,805

- (1) Annual return as of 2017
- (2) Derived from the 10-year Growth Projections Report, Table 7
- (3) Not Applicable for this Area
- (4) Not Applicable for this Area
- (5) Assumes 50% of new project costs funded through sources other than debt
- (6) Assumes 50% of new project costs funded through new debt issues
- (7) Line 15 of the Max Fee Table Report
- (8) Assumes new debt issued in equal annual amounts
- (9) Estimated interest cost provided by City Staff
- (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area PI

### I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 26,875	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,875
2	26,875	29,391	-	-	-	-	-	-	-	-	56,266
3	26,875	29,391	31,354	-	-	-	-	-	-	-	87,620
4	26,875	29,391	31,354	31,354	-	-	-	-	-	-	118,974
5	26,875	29,391	31,354	31,354	31,354	-	-	-	-	-	150,328
6	26,875	29,391	31,354	31,354	31,354	31,354	-	-	-	-	181,682
7	26,875	29,391	31,354	31,354	31,354	31,354	31,354	-	-	-	213,036
8	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	-	-	244,390
9	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	-	275,744
10	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
11	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
12	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
13	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
14	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
15	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
16	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
17	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
18	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
19	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
20	26,875	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	307,098
21	-	29,391	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	280,223
22	-	-	31,354	31,354	31,354	31,354	31,354	31,354	31,354	31,354	250,832
23	-	-	-	31,354	31,354	31,354	31,354	31,354	31,354	31,354	219,478
24	-	-	-	-	31,354	31,354	31,354	31,354	31,354	31,354	188,124
25	-	-	-	-	-	31,354	31,354	31,354	31,354	31,354	156,770
26	-	-	-	-	-	-	31,354	31,354	31,354	31,354	125,416
27	-	-	-	-	-	-	-	31,354	31,354	31,354	94,062
28	-	-	-	-	-	-	-	-	31,354	31,354	62,708
29	-	-	-	-	-	-	-	-	-	31,354	31,354
	\$ 537,494	\$ 587,828	\$ 627,080	\$ 627,080	\$ 627,080	\$ 627,080	\$ 627,080	\$ 627,080	\$ 627,080	\$ 627,080	\$ 6,141,963

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 26,875	\$ 586,110	\$ (390,740)	\$ -	\$ (29)	\$ 222,216
2	56,266	781,481	(390,740)	-	(121)	446,886
3	87,620	781,481	(390,740)	-	(282)	478,078
4	118,974	781,481	(390,740)	-	(510)	509,204
5	150,328	781,481	(390,740)	-	(804)	540,264
6	181,682	781,481	(390,740)	-	(1,165)	571,257
7	213,036	781,481	(390,740)	-	(1,593)	602,184
8	244,390	781,481	(390,740)	-	(2,086)	633,045
9	275,744	781,481	(390,740)	-	(2,645)	663,840
10	307,098	976,851	(390,740)	-	(3,269)	889,939
11	307,098	-	-	-	-	307,098
12	307,098	-	-	-	-	307,098
13	307,098	-	-	-	-	307,098
14	307,098	-	-	-	-	307,098
15	307,098	-	-	-	-	307,098
16	307,098	-	-	-	-	307,098
17	307,098	-	-	-	-	307,098
18	307,098	-	-	-	-	307,098
19	307,098	-	-	-	-	307,098
20	307,098	-	-	-	-	307,098
21	280,223	-	-	-	-	280,223
22	250,832	-	-	-	-	250,832
23	219,478	-	-	-	-	219,478
24	188,124	-	-	-	-	188,124
25	156,770	-	-	-	-	156,770
26	125,416	-	-	-	-	125,416
27	94,062	-	-	-	-	94,062
28	62,708	-	-	-	-	62,708
29	31,354	-	-	-	-	31,354
	\$ 6,141,963	\$ 7,814,805	\$ (3,907,403)	\$ -	\$ (12,504)	\$ 10,036,862



City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions

**III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>**

The projects related to this area have not been previously funded with debt.

**IV. Summary of Debt Financing**

Existing Debt Funded Project Costs <sup>(5)</sup>	-
-Less Principal PTD	-
Outstanding Debt Principal	-
New Project Costs Debt Principal <sup>(5)</sup>	3,907,403
<b>Principal Component</b>	<b>\$ 3,907,403</b>

(1) Appendix E - Service Area PI, Page 2

(2) Appendix E - Service Area PI, Page 1

(3) Not Applicable to this Service Area.

(4) Appendix E - Service Area PI, Page 8

(5) Appendix E - Service Area PI, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area PI

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ -
1	\$ 492	1,965	\$ 965,973	\$ 222,216	\$ 743,757	2,417	746,175
2	492	1,965	965,973	446,886	519,088	6,537	1,271,800
3	492	1,965	965,973	478,078	487,895	9,852	1,769,547
4	492	1,965	965,973	509,204	456,769	12,987	2,239,303
5	492	1,965	965,973	540,264	425,710	15,939	2,680,951
6	492	1,965	965,973	571,257	394,716	18,709	3,094,377
7	492	1,965	965,973	602,184	363,790	21,296	3,479,462
8	492	1,965	965,973	633,045	332,929	23,699	3,836,089
9	492	1,965	965,973	663,840	302,134	25,917	4,164,140
10	492	1,965	965,973	889,939	76,034	27,314	4,267,488
11	-	-	-	307,098	(307,098)	26,741	3,987,130
12	-	-	-	307,098	(307,098)	24,918	3,704,951
13	-	-	-	307,098	(307,098)	23,084	3,420,937
14	-	-	-	307,098	(307,098)	21,238	3,135,076
15	-	-	-	307,098	(307,098)	19,380	2,847,358
16	-	-	-	307,098	(307,098)	17,510	2,557,770
17	-	-	-	307,098	(307,098)	15,627	2,266,299
18	-	-	-	307,098	(307,098)	13,733	1,972,934
19	-	-	-	307,098	(307,098)	11,826	1,677,662
20	-	-	-	307,098	(307,098)	9,907	1,380,470
21	-	-	-	280,223	(280,223)	8,062	1,108,309
22	-	-	-	250,832	(250,832)	6,389	863,866
23	-	-	-	219,478	(219,478)	4,902	649,289
24	-	-	-	188,124	(188,124)	3,609	464,774
25	-	-	-	156,770	(156,770)	2,512	310,516
26	-	-	-	125,416	(125,416)	1,611	186,711
27	-	-	-	94,062	(94,062)	908	93,556
28	-	-	-	62,708	(62,708)	404	31,253
29	-	-	-	31,354	(31,354)	101	-
			9,659,734	10,036,862		377,128	

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area PI

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	1,965	2,363	\$ 222,216	\$ 267,282
2	28	1.1950	1.0000	1,965	2,348	446,886	534,045
3	27	1.1873	1.0000	1,965	2,333	478,078	567,632
4	26	1.1797	1.0000	1,965	2,318	509,204	600,684
5	25	1.1720	1.0000	1,965	2,303	540,264	633,207
6	24	1.1645	1.0000	1,965	2,288	571,257	665,208
7	23	1.1569	1.0000	1,965	2,273	602,184	696,693
8	22	1.1495	1.0000	1,965	2,258	633,045	727,667
9	21	1.1420	1.0000	1,965	2,244	663,840	758,137
10	20	1.1347	1.0000	1,965	2,229	889,939	1,009,791
11	19	1.1273	1.0000	-	-	307,098	346,206
12	18	1.1201	1.0000	-	-	307,098	343,970
13	17	1.1128	1.0000	-	-	307,098	341,749
14	16	1.1056	1.0000	-	-	307,098	339,542
15	15	1.0985	1.0000	-	-	307,098	337,349
16	14	1.0914	1.0000	-	-	307,098	335,170
17	13	1.0844	1.0000	-	-	307,098	333,006
18	12	1.0774	1.0000	-	-	307,098	330,855
19	11	1.0704	1.0000	-	-	307,098	328,719
20	10	1.0635	1.0000	-	-	307,098	326,596
21	9	1.0566	1.0000	-	-	280,223	296,090
22	8	1.0498	1.0000	-	-	250,832	263,323
23	7	1.0430	1.0000	-	-	219,478	228,920
24	6	1.0363	1.0000	-	-	188,124	194,950
25	5	1.0296	1.0000	-	-	156,770	161,409
26	4	1.0229	1.0000	-	-	125,416	128,293
27	3	1.0163	1.0000	-	-	94,062	95,598
28	2	1.0098	1.0000	-	-	62,708	63,321
29	1	1.0033	1.0000	-	-	31,354	31,456
						22,956	11,286,862
							11,286,866

Total Escalated Expense for Entire Period	\$ 11,286,866
Less Future Value of Initial Fund Balance	-
Net Escalated Expense for Entire Period	\$ 11,286,866
Total Escalated Service Units	22,956
<b>Impact Fee for Service Area PI</b>	<b>\$ 492</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area PI

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee</u> <u>Project No.<sup>(1)</sup></u>	<u>Total</u> <u>Project Cost<sup>(1)</sup></u>	<u>Percent in</u> <u>Service Area<sup>(1)</sup></u>	<u>Cost in</u> <u>Service Area<sup>(1)</sup></u>	<u>Impact Fee</u> <u>Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt</u> <u>Funded<sup>(3)</sup></u>	<u>Impact Fee</u> <u>Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
White Settlement	PI-1	\$ 7,514,598	100%	\$ 7,514,598	\$ 7,155,805	\$ -	\$ 3,577,903	\$ 3,577,903	\$ 7,155,805
White Settlement Intersection		2,500,000	100%	2,500,000	655,000	-	327,500	327,500	655,000
Transportation Impact Fee Project		4,000	100%	4,000	4,000	-	2,000	2,000	4,000
Total		\$ 10,018,598		\$ 10,018,598	\$ 7,814,805	\$ -	\$ 3,907,403	\$ 3,907,403	\$ 7,814,805

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area PI

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area PI) <sup>(1)</sup>	19,647
Annual Growth in Vehicle Miles	<u>10</u> years 1,965

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 26,875	\$ 56,266	\$ 87,620	\$ 118,974	\$ 150,328	\$ 181,682	\$ 213,036	\$ 244,390	\$ 275,744	\$ 307,098	\$ 1,662,014
2017 Vehicle Miles plus Service Area PI Growth	1,827,813	1,829,778	1,831,742	1,833,707	1,835,672	1,837,636	1,839,601	1,841,566	1,843,531	1,845,495	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.01	\$ 0.03	\$ 0.05	\$ 0.06	\$ 0.08	\$ 0.10	\$ 0.12	\$ 0.13	\$ 0.15	\$ 0.17	
Annual Growth in Service Area PI Vehicle Miles (Cumulative)	1,965	3,929	5,894	7,859	9,823	11,788	13,753	15,718	17,682	19,647	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 29	\$ 121	\$ 282	\$ 510	\$ 804	\$ 1,165	\$ 1,593	\$ 2,086	\$ 2,645	\$ 3,269	\$ 12,504
Credit Amount	\$ 12,504										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area S

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	2,137
Existing Fund Balance <sup>(3)</sup>	2,047,407
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 689,161
Non-debt Funded New Project Cost <sup>(5)</sup>	26,549,509
New Project Cost Funded Through New Debt <sup>(6)</sup>	26,384,143
Total Recoverable Project Cost <sup>(7)</sup>	\$ 53,622,813

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 2,638,414	3.25%	20
2	2,638,414	4.25%	20
3	2,638,414	5.00%	20
4	2,638,414	5.00%	20
5	2,638,414	5.00%	20
6	2,638,414	5.00%	20
7	2,638,414	5.00%	20
8	2,638,414	5.00%	20
9	2,638,414	5.00%	20
10	2,638,414	5.00%	20
Total	\$ 26,384,143		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 3,970,024
2	5,293,365
3	5,293,365
4	5,293,365
5	5,293,365
6	5,293,365
7	5,293,365
8	5,293,365
9	5,293,365
10	6,616,706
Total	\$ 52,933,652

- (1) Annual return as of 2017
- (2) Derived from the 10-year Growth Projections Report, Table 7
- (3) Balances provided by City Staff as of August 2017
- (4) Existing debt funded project costs from details provided by staff
- (5) Assumes 50% of new project costs funded through sources other than debt
- (6) Assumes 50% of new project costs funded through new debt issues
- (7) Line 15 of the Max Fee Table Report
- (8) Assumes new debt issued in equal annual amounts
- (9) Estimated interest cost provided by City Staff
- (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area S

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 181,467	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 181,467
2	181,467	198,461	-	-	-	-	-	-	-	-	379,928
3	181,467	198,461	211,713	-	-	-	-	-	-	-	591,641
4	181,467	198,461	211,713	211,713	-	-	-	-	-	-	803,355
5	181,467	198,461	211,713	211,713	211,713	-	-	-	-	-	1,015,068
6	181,467	198,461	211,713	211,713	211,713	211,713	-	-	-	-	1,226,781
7	181,467	198,461	211,713	211,713	211,713	211,713	211,713	-	-	-	1,438,494
8	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	-	-	1,650,207
9	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	-	1,861,921
10	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
11	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
12	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
13	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
14	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
15	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
16	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
17	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
18	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
19	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
20	181,467	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	2,073,634
21	-	198,461	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	1,892,167
22	-	-	211,713	211,713	211,713	211,713	211,713	211,713	211,713	211,713	1,693,706
23	-	-	-	211,713	211,713	211,713	211,713	211,713	211,713	211,713	1,481,992
24	-	-	-	-	211,713	211,713	211,713	211,713	211,713	211,713	1,270,279
25	-	-	-	-	-	211,713	211,713	211,713	211,713	211,713	1,058,566
26	-	-	-	-	-	-	211,713	211,713	211,713	211,713	846,853
27	-	-	-	-	-	-	-	211,713	211,713	211,713	635,140
28	-	-	-	-	-	-	-	-	211,713	211,713	423,426
29	-	-	-	-	-	-	-	-	-	211,713	211,713
	\$ 3,629,344	\$ 3,969,222	\$ 4,234,264	\$ 4,234,264	\$ 4,234,264	\$ 4,234,264	\$ 4,234,264	\$ 4,234,264	\$ 4,234,264	\$ 4,234,264	\$ 41,472,676

City of Fort Worth - 2017 Transportation Impact Fee Study  
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Appendix E - Impact Fee Calculation Assumptions

II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 181,467	\$ 3,970,024	\$ (2,638,414)	\$ 85,889	\$ (313)	\$ 1,598,653
2	379,928	5,293,365	(2,638,414)	84,107	(1,084)	3,117,902
3	591,641	5,293,365	(2,638,414)	82,423	(2,359)	3,326,657
4	803,355	5,293,365	(2,638,414)	80,739	(4,120)	3,534,925
5	1,015,068	5,293,365	(2,638,414)	79,056	(6,366)	3,742,709
6	1,226,781	5,293,365	(2,638,414)	77,372	(9,095)	3,950,009
7	1,438,494	5,293,365	(2,638,414)	-	(11,690)	4,081,755
8	1,650,207	5,293,365	(2,638,414)	-	(15,308)	4,289,850
9	1,861,921	5,293,365	(2,638,414)	-	(19,409)	4,497,462
10	2,073,634	6,616,706	(2,638,414)	-	(23,990)	6,027,936
11	2,073,634	-	-	-	-	2,073,634
12	2,073,634	-	-	-	-	2,073,634
13	2,073,634	-	-	-	-	2,073,634
14	2,073,634	-	-	-	-	2,073,634
15	2,073,634	-	-	-	-	2,073,634
16	2,073,634	-	-	-	-	2,073,634
17	2,073,634	-	-	-	-	2,073,634
18	2,073,634	-	-	-	-	2,073,634
19	2,073,634	-	-	-	-	2,073,634
20	2,073,634	-	-	-	-	2,073,634
21	1,892,167	-	-	-	-	1,892,167
22	1,693,706	-	-	-	-	1,693,706
23	1,481,992	-	-	-	-	1,481,992
24	1,270,279	-	-	-	-	1,270,279
25	1,058,566	-	-	-	-	1,058,566
26	846,853	-	-	-	-	846,853
27	635,140	-	-	-	-	635,140
28	423,426	-	-	-	-	423,426
29	211,713	-	-	-	-	211,713
	\$ 41,472,676	\$ 52,933,652	\$ (26,384,143)	\$ 489,586	\$ (93,732)	\$ 68,418,038



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2014 GO</u>	<u>TOTAL</u>
2007		-
2008		-
2009		-
2010		-
2011		-
2012		-
2013		-
2014	-	-
2015	76,627	76,627
2016	76,627	76,627
2017	76,627	76,627
	<u>\$ 229,882</u>	<u>\$ 229,882</u>

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	689,161
-Less Principal PTD	<u>229,882</u>
Outstanding Debt Principal	459,279
New Project Costs Debt Principal(5)	<u>26,384,143</u>
<b>Principal Component</b>	<b>\$ 26,843,422</b>

(1) Appendix E - Service Area S, Page 2

(2) Appendix E - Service Area S, Page 1

(3) Existing debt funded project costs from details provided by staff

(4) Appendix E - Service Area S, Page 8

(5) Appendix E - Service Area S, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area S

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 2,047,407
1	\$ 2,984	2,137	\$ 6,376,348	\$ 1,598,653	\$ 4,777,695	28,836	6,853,938
2	2,984	2,137	6,376,348	3,117,902	3,258,446	55,141	10,167,524
3	2,984	2,137	6,376,348	3,326,657	3,049,691	76,000	13,293,216
4	2,984	2,137	6,376,348	3,534,925	2,841,423	95,641	16,230,280
5	2,984	2,137	6,376,348	3,742,709	2,633,639	114,056	18,977,975
6	2,984	2,137	6,376,348	3,950,009	2,426,339	131,242	21,535,556
7	2,984	2,137	6,376,348	4,081,755	2,294,593	147,439	23,977,588
8	2,984	2,137	6,376,348	4,289,850	2,086,498	162,635	26,226,722
9	2,984	2,137	6,376,348	4,497,462	1,878,886	176,580	28,282,187
10	2,984	2,137	6,376,348	6,027,936	348,412	184,967	28,815,566
11	-	-	-	2,073,634	(2,073,634)	180,562	26,922,494
12	-	-	-	2,073,634	(2,073,634)	168,257	25,017,117
13	-	-	-	2,073,634	(2,073,634)	155,872	23,099,355
14	-	-	-	2,073,634	(2,073,634)	143,406	21,169,128
15	-	-	-	2,073,634	(2,073,634)	130,860	19,226,354
16	-	-	-	2,073,634	(2,073,634)	118,232	17,270,952
17	-	-	-	2,073,634	(2,073,634)	105,522	15,302,840
18	-	-	-	2,073,634	(2,073,634)	92,729	13,321,936
19	-	-	-	2,073,634	(2,073,634)	79,853	11,328,155
20	-	-	-	2,073,634	(2,073,634)	66,894	9,321,415
21	-	-	-	1,892,167	(1,892,167)	54,440	7,483,688
22	-	-	-	1,693,706	(1,693,706)	43,139	5,833,122
23	-	-	-	1,481,992	(1,481,992)	33,099	4,384,229
24	-	-	-	1,270,279	(1,270,279)	24,369	3,138,318
25	-	-	-	1,058,566	(1,058,566)	16,959	2,096,711
26	-	-	-	846,853	(846,853)	10,876	1,260,735
27	-	-	-	635,140	(635,140)	6,131	631,726
28	-	-	-	423,426	(423,426)	2,730	211,030
29	-	-	-	211,713	(211,713)	684	-
			63,763,481	68,418,038		2,607,150	

City of Fort Worth - 2017 Transportation Impact Fee Study  
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<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	2,137	2,570	\$ 1,598,653	\$ 1,922,867
2	28	1.1950	1.0000	2,137	2,554	3,117,902	3,726,007
3	27	1.1873	1.0000	2,137	2,537	3,326,657	3,949,803
4	26	1.1797	1.0000	2,137	2,521	3,534,925	4,169,979
5	25	1.1720	1.0000	2,137	2,505	3,742,709	4,386,578
6	24	1.1645	1.0000	2,137	2,489	3,950,009	4,599,644
7	23	1.1569	1.0000	2,137	2,472	4,081,755	4,722,362
8	22	1.1495	1.0000	2,137	2,456	4,289,850	4,931,064
9	21	1.1420	1.0000	2,137	2,441	4,497,462	5,136,323
10	20	1.1347	1.0000	2,137	2,425	6,027,936	6,839,740
11	19	1.1273	1.0000	-	-	2,073,634	2,337,703
12	18	1.1201	1.0000	-	-	2,073,634	2,322,606
13	17	1.1128	1.0000	-	-	2,073,634	2,307,606
14	16	1.1056	1.0000	-	-	2,073,634	2,292,704
15	15	1.0985	1.0000	-	-	2,073,634	2,277,897
16	14	1.0914	1.0000	-	-	2,073,634	2,263,187
17	13	1.0844	1.0000	-	-	2,073,634	2,248,571
18	12	1.0774	1.0000	-	-	2,073,634	2,234,050
19	11	1.0704	1.0000	-	-	2,073,634	2,219,622
20	10	1.0635	1.0000	-	-	2,073,634	2,205,288
21	9	1.0566	1.0000	-	-	1,892,167	1,999,304
22	8	1.0498	1.0000	-	-	1,693,706	1,778,048
23	7	1.0430	1.0000	-	-	1,481,992	1,545,745
24	6	1.0363	1.0000	-	-	1,270,279	1,316,368
25	5	1.0296	1.0000	-	-	1,058,566	1,089,889
26	4	1.0229	1.0000	-	-	846,853	866,280
27	3	1.0163	1.0000	-	-	635,140	645,514
28	2	1.0098	1.0000	-	-	423,426	427,564
29	1	1.0033	1.0000	-	-	211,713	212,401
					24,970	68,418,038	76,974,712

Total Escalated Expense for Entire Period	\$ 76,974,712
Less Future Value of Initial Fund Balance	2,470,608
Net Escalated Expense for Entire Period	\$ 74,504,104
Total Escalated Service Units	24,970
<b>Impact Fee for Service Area S</b>	<b>\$ 2,984</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### Service Area S

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total</u>		<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>		<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>		<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>	
		<u>Project Cost<sup>(1)</sup></u>					<u>Existing</u>	<u>Proposed</u>	<u>Existing</u>	<u>Proposed</u>		<u>Existing</u>	<u>Proposed</u>
Silver Creek (1)	S-1	\$ 7,566,000		100%	\$ 7,566,000	\$ 4,727,657	\$ -	\$ 2,363,829	\$ 2,363,829		\$ 2,363,829	\$ 4,727,657	
Silver Creek (2)	S-2	5,708,000		100%	5,708,000	3,566,675	-	1,783,338	1,783,338			3,566,675	
Silver Creek (3)	S-3	1,195,000		100%	1,195,000	746,702	-	373,351	373,351			746,702	
Silver Creek (4)	S-4	2,071,000		100%	2,071,000	1,294,076	-	647,038	647,038			1,294,076	
Silver Creek (5)	S-5	1,329,510		100%	1,329,510	830,752	689,161	-	141,590			830,752	
White Settlement (1)	S-6	8,917,000		50%	4,458,500	2,785,918	-	1,392,959	1,392,959			2,785,918	
White Settlement (2)	S-7	1,318,000		50%	659,000	411,780	-	205,890	205,890			411,780	
White Settlement (3)	S-8	5,831,000		100%	5,831,000	3,643,533	-	1,821,766	1,821,766			3,643,533	
White Settlement (4)	S-9	925,000		100%	925,000	577,991	-	288,996	288,996			577,991	
White Settlement (5)	S-10	714,000		100%	714,000	446,147	-	223,073	223,073			446,147	
White Settlement (6)	S-11	213,000		100%	213,000	133,094	-	66,547	66,547			133,094	
Westpoint (1)	S-12	4,982,000		100%	4,982,000	3,113,030	-	1,556,515	1,556,515			3,113,030	
Westpoint (2)	S-13	1,112,000		100%	1,112,000	694,839	-	347,420	347,420			694,839	
Westpoint (3)	S-14	5,145,000		100%	5,145,000	3,214,882	-	1,607,441	1,607,441			3,214,882	
Old Weatherford (3)	S-15	4,842,000		100%	4,842,000	3,025,551	-	1,512,775	1,512,775			3,025,551	
Old Weatherford (4)	S-16	3,448,000		100%	3,448,000	2,154,502	-	1,077,251	1,077,251			2,154,502	
Amber Ridge (1)	S-17	973,000		100%	973,000	607,984	-	303,992	303,992			607,984	
Amber Ridge (2)	S-18	1,775,000		100%	1,775,000	1,109,119	-	554,559	554,559			1,109,119	
Amber Ridge (3)	S-19	989,000		100%	989,000	617,982	-	308,991	308,991			617,982	
Amber Ridge (4)	S-20	712,000		100%	712,000	444,897	-	222,449	222,449			444,897	
Amber Ridge (5)	S-21	2,849,000		100%	2,849,000	1,780,213	-	890,107	890,107			1,780,213	
Chapin (1)	S-22	1,821,000		100%	1,821,000	1,137,862	-	568,931	568,931			1,137,862	
Chapin (2)	S-23	1,334,000		100%	1,334,000	833,557	-	416,779	416,779			833,557	
WR #7	S-24	5,137,000		100%	5,137,000	3,209,883	-	1,604,941	1,604,941			3,209,883	
Silver Ridge	S-25	3,787,000		100%	3,787,000	2,366,328	-	1,183,164	1,183,164			2,366,328	
Chapel Creek	S-26	967,698		100%	967,698	604,671	-	302,336	302,336			604,671	
Academy (1)	S-27	4,227,000		100%	4,227,000	2,641,264	-	1,320,632	1,320,632			2,641,264	
Academy (2)	S-28	2,714,000		100%	2,714,000	1,695,858	-	847,929	847,929			1,695,858	
Academy (3)	S-29	3,906,000		100%	3,906,000	2,440,686	-	1,220,343	1,220,343			2,440,686	
Settlement Plaza	S-30	1,501,000		100%	1,501,000	937,908	-	468,954	468,954			937,908	
Amber Ridge		1,000,000		100%	1,000,000	151,000	-	75,500	75,500			151,000	
Old Weatherford		1,500,000		100%	1,500,000	226,500	-	113,250	113,250			226,500	
Amber Ridge		1,000,000		100%	1,000,000	151,000	-	75,500	75,500			151,000	
Chapin		295,000		100%	295,000	44,545	-	22,273	22,273			44,545	
Clifford		200,000		100%	200,000	30,200	-	15,100	15,100			30,200	
Legacy		1,500,000		100%	1,500,000	226,500	-	113,250	113,250			226,500	
Silver Creek		1,000,000		100%	1,000,000	151,000	-	75,500	75,500			151,000	
Westpoint		800,000		100%	800,000	120,800	-	60,400	60,400			120,800	
Westpoint		1,500,000		100%	1,500,000	226,500	-	113,250	113,250			226,500	
Westpoint		1,500,000		100%	1,500,000	226,500	-	113,250	113,250			226,500	
Westpoint		300,000		100%	300,000	45,300	-	22,650	22,650			45,300	
White Settlement		400,000		100%	400,000	60,400	-	30,200	30,200			60,400	
White Settlement		600,000		100%	600,000	90,600	-	45,300	45,300			90,600	
White Settlement		200,000		100%	200,000	30,200	-	15,100	15,100			30,200	
White Settlement		300,000		50%	150,000	22,650	-	11,325	11,325			22,650	
Transportation Impact Fee Project		23,775		100%	23,775	23,775	-	-	23,775			23,775	
Total		\$ 100,127,983			\$ 94,860,483	\$ 53,622,813	\$ 689,161	\$ 26,384,143	\$ 26,549,509			\$ 53,622,813	

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
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Service Area S

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area S) <sup>(1)</sup>	21,371
Annual Growth in Vehicle Miles	<u>10</u> years 2,137

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 267,356	\$ 464,035	\$ 674,065	\$ 884,094	\$ 1,094,124	\$ 1,304,153	\$ 1,438,494	\$ 1,650,207	\$ 1,861,921	\$ 2,073,634	\$ 11,712,083
2017 Vehicle Miles plus Service Area S Growth	1,827,985	1,830,122	1,832,259	1,834,397	1,836,534	1,838,671	1,840,808	1,842,945	1,845,082	1,847,219	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.15	\$ 0.25	\$ 0.37	\$ 0.48	\$ 0.60	\$ 0.71	\$ 0.78	\$ 0.90	\$ 1.01	\$ 1.12	
Annual Growth in Service Area S Vehicle Miles (Cumulative)	2,137	4,274	6,411	8,548	10,685	12,822	14,959	17,096	19,233	21,371	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 313	\$ 1,084	\$ 2,359	\$ 4,120	\$ 6,366	\$ 9,095	\$ 11,690	\$ 15,308	\$ 19,409	\$ 23,990	\$ 93,732
Credit Amount	\$ 93,732										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area T

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	908
Existing Fund Balance <sup>(3)</sup>	1,035,694
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ -
Non-debt Funded New Project Cost <sup>(5)</sup>	7,147,407
New Project Cost Funded Through New Debt <sup>(6)</sup>	7,123,632
Total Recoverable Project Cost <sup>(7)</sup>	\$ 14,271,038

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 712,363	3.25%	20
2	712,363	4.25%	20
3	712,363	5.00%	20
4	712,363	5.00%	20
5	712,363	5.00%	20
6	712,363	5.00%	20
7	712,363	5.00%	20
8	712,363	5.00%	20
9	712,363	5.00%	20
10	712,363	5.00%	20
Total	\$ 7,123,632		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 1,070,328
2	1,427,104
3	1,427,104
4	1,427,104
5	1,427,104
6	1,427,104
7	1,427,104
8	1,427,104
9	1,427,104
10	1,783,880
Total	\$ 14,271,038

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Not Applicable for this Area  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area T

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 48,996	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,996
2	48,996	53,584	-	-	-	-	-	-	-	-	102,579
3	48,996	53,584	57,162	-	-	-	-	-	-	-	159,741
4	48,996	53,584	57,162	57,162	-	-	-	-	-	-	216,903
5	48,996	53,584	57,162	57,162	57,162	-	-	-	-	-	274,065
6	48,996	53,584	57,162	57,162	57,162	57,162	-	-	-	-	331,227
7	48,996	53,584	57,162	57,162	57,162	57,162	57,162	-	-	-	388,389
8	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	-	-	445,551
9	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	-	502,712
10	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
11	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
12	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
13	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
14	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
15	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
16	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
17	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
18	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
19	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
20	48,996	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	559,874
21	-	53,584	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	510,879
22	-	-	57,162	57,162	57,162	57,162	57,162	57,162	57,162	57,162	457,295
23	-	-	-	57,162	57,162	57,162	57,162	57,162	57,162	57,162	400,133
24	-	-	-	-	57,162	57,162	57,162	57,162	57,162	57,162	342,971
25	-	-	-	-	-	57,162	57,162	57,162	57,162	57,162	285,809
26	-	-	-	-	-	-	57,162	57,162	57,162	57,162	228,647
27	-	-	-	-	-	-	-	57,162	57,162	57,162	171,486
28	-	-	-	-	-	-	-	-	57,162	57,162	114,324
29	-	-	-	-	-	-	-	-	-	57,162	57,162
	\$ 979,911	\$ 1,071,677	\$ 1,143,237	\$ 1,143,237	\$ 1,143,237	\$ 1,143,237	\$ 1,143,237	\$ 1,143,237	\$ 1,143,237	\$ 1,143,237	\$ 11,197,486

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions

II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 48,996	\$ 1,070,328	\$ (712,363)	\$ -	\$ (24)	\$ 406,936
2	102,579	1,427,104	(712,363)	-	(102)	817,218
3	159,741	1,427,104	(712,363)	-	(238)	874,244
4	216,903	1,427,104	(712,363)	-	(430)	931,213
5	274,065	1,427,104	(712,363)	-	(680)	988,126
6	331,227	1,427,104	(712,363)	-	(985)	1,044,982
7	388,389	1,427,104	(712,363)	-	(1,347)	1,101,782
8	445,551	1,427,104	(712,363)	-	(1,765)	1,158,526
9	502,712	1,427,104	(712,363)	-	(2,239)	1,215,214
10	559,874	1,783,880	(712,363)	-	(2,770)	1,628,621
11	559,874	-	-	-	-	559,874
12	559,874	-	-	-	-	559,874
13	559,874	-	-	-	-	559,874
14	559,874	-	-	-	-	559,874
15	559,874	-	-	-	-	559,874
16	559,874	-	-	-	-	559,874
17	559,874	-	-	-	-	559,874
18	559,874	-	-	-	-	559,874
19	559,874	-	-	-	-	559,874
20	559,874	-	-	-	-	559,874
21	510,879	-	-	-	-	510,879
22	457,295	-	-	-	-	457,295
23	400,133	-	-	-	-	400,133
24	342,971	-	-	-	-	342,971
25	285,809	-	-	-	-	285,809
26	228,647	-	-	-	-	228,647
27	171,486	-	-	-	-	171,486
28	114,324	-	-	-	-	114,324
29	57,162	-	-	-	-	57,162
	\$ 11,197,486	\$ 14,271,038	\$ (7,123,632)	\$ -	\$ (10,580)	\$ 18,334,312



City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions

**III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>**

The projects related to this area have not been previously funded with debt.

**IV. Summary of Debt Financing**

Existing Debt Funded Project Costs <sup>(5)</sup>	-
-Less Principal PTD	-
Outstanding Debt Principal	-
New Project Costs Debt Principal <sup>(5)</sup>	7,123,632
<b>Principal Component</b>	<b>\$ 7,123,632</b>

(1) Appendix E - Service Area T, Page 2

(2) Appendix E - Service Area T, Page 1

(3) Not Applicable for this Area

(4) Appendix E - Service Area T, Page 8

(5) Appendix E - Service Area T, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area T

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 1,035,694
1	\$ 1,826	908	\$ 1,657,694	\$ 406,936	\$ 1,250,758	10,797	2,297,249
2	1,826	908	1,657,694	817,218	840,476	17,664	3,155,389
3	1,826	908	1,657,694	874,244	783,450	23,056	3,961,895
4	1,826	908	1,657,694	931,213	726,481	28,113	4,716,489
5	1,826	908	1,657,694	988,126	669,568	32,833	5,418,890
6	1,826	908	1,657,694	1,044,982	612,712	37,214	6,068,816
7	1,826	908	1,657,694	1,101,782	555,912	41,254	6,665,982
8	1,826	908	1,657,694	1,158,526	499,168	44,951	7,210,101
9	1,826	908	1,657,694	1,215,214	442,480	48,304	7,700,885
10	1,826	908	1,657,694	1,628,621	29,073	50,150	7,780,108
11	-	-	-	559,874	(559,874)	48,751	7,268,984
12	-	-	-	559,874	(559,874)	45,429	6,754,539
13	-	-	-	559,874	(559,874)	42,085	6,236,750
14	-	-	-	559,874	(559,874)	38,719	5,715,595
15	-	-	-	559,874	(559,874)	35,332	5,191,052
16	-	-	-	559,874	(559,874)	31,922	4,663,100
17	-	-	-	559,874	(559,874)	28,491	4,131,716
18	-	-	-	559,874	(559,874)	25,037	3,596,879
19	-	-	-	559,874	(559,874)	21,560	3,058,564
20	-	-	-	559,874	(559,874)	18,061	2,516,751
21	-	-	-	510,879	(510,879)	14,699	2,020,571
22	-	-	-	457,295	(457,295)	11,648	1,574,924
23	-	-	-	400,133	(400,133)	8,937	1,183,727
24	-	-	-	342,971	(342,971)	6,580	847,336
25	-	-	-	285,809	(285,809)	4,579	566,105
26	-	-	-	228,647	(228,647)	2,937	340,394
27	-	-	-	171,486	(171,486)	1,655	170,564
28	-	-	-	114,324	(114,324)	737	56,977
29	-	-	-	57,162	(57,162)	185	-
			16,576,940	18,334,312		721,678	

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area T

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	908	1,092	\$ 406,936	\$ 489,464
2	28	1.1950	1.0000	908	1,085	817,218	976,606
3	27	1.1873	1.0000	908	1,078	874,244	1,038,007
4	26	1.1797	1.0000	908	1,071	931,213	1,098,507
5	25	1.1720	1.0000	908	1,064	988,126	1,158,116
6	24	1.1645	1.0000	908	1,057	1,044,982	1,216,844
7	23	1.1569	1.0000	908	1,050	1,101,782	1,274,700
8	22	1.1495	1.0000	908	1,043	1,158,526	1,331,694
9	21	1.1420	1.0000	908	1,037	1,215,214	1,387,834
10	20	1.1347	1.0000	908	1,030	1,268,621	1,447,954
11	19	1.1273	1.0000	-	-	559,874	631,172
12	18	1.1201	1.0000	-	-	559,874	627,096
13	17	1.1128	1.0000	-	-	559,874	623,046
14	16	1.1056	1.0000	-	-	559,874	619,022
15	15	1.0985	1.0000	-	-	559,874	615,025
16	14	1.0914	1.0000	-	-	559,874	611,053
17	13	1.0844	1.0000	-	-	559,874	607,107
18	12	1.0774	1.0000	-	-	559,874	603,186
19	11	1.0704	1.0000	-	-	559,874	599,291
20	10	1.0635	1.0000	-	-	559,874	595,420
21	9	1.0566	1.0000	-	-	510,879	539,805
22	8	1.0498	1.0000	-	-	457,295	480,067
23	7	1.0430	1.0000	-	-	400,133	417,346
24	6	1.0363	1.0000	-	-	342,971	355,415
25	5	1.0296	1.0000	-	-	285,809	294,266
26	4	1.0229	1.0000	-	-	228,647	233,893
27	3	1.0163	1.0000	-	-	171,486	174,287
28	2	1.0098	1.0000	-	-	114,324	115,441
29	1	1.0033	1.0000	-	-	57,162	57,348
					10,606	18,334,312	20,619,011

Total Escalated Expense for Entire Period	\$ 20,619,011
Less Future Value of Initial Fund Balance	1,249,773
Net Escalated Expense for Entire Period	\$ 19,369,239
Total Escalated Service Units	10,606
<b>Impact Fee for Service Area T</b>	<b>\$ 1,826</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### Service Area T

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee</u>	<u>Total</u>	<u>Percent in</u>	<u>Cost in</u>	<u>Impact Fee</u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt</u>	<u>Impact Fee</u>
	<u>Project No.<sup>(1)</sup></u>	<u>Project Cost<sup>(1)</sup></u>	<u>Service Area<sup>(1)</sup></u>	<u>Service Area<sup>(1)</sup></u>	<u>Recoverable Cost<sup>(2)</sup></u>	<u>Existing</u>	<u>Proposed</u>	<u>Funded<sup>(3)</sup></u>	<u>Recoverable Cost</u>
Chapin (3)	T-1	\$ 3,439,000	100%	\$ 3,439,000	\$ 3,377,460	\$ -	\$ 1,688,730	\$ 1,688,730	\$ 3,377,460
Chapin (4)	T-2	3,575,000	100%	3,575,000	3,511,026	-	1,755,513	1,755,513	3,511,026
Chapin (5)	T-3	1,364,000	100%	1,364,000	1,339,592	-	669,796	669,796	1,339,592
Chapin (6)	T-4	1,975,000	100%	1,975,000	1,939,658	-	969,829	969,829	1,939,658
Alemeda (1)	T-5	606,000	100%	606,000	595,156	-	297,578	297,578	595,156
Alemeda (2)	T-6	1,882,000	100%	1,882,000	1,848,322	-	924,161	924,161	1,848,322
Calmont		720,000	50%	360,000	46,800	-	23,400	23,400	46,800
Calmont		2,500,000	100%	2,500,000	325,000	-	162,500	162,500	325,000
Calmont		2,500,000	100%	2,500,000	325,000	-	162,500	162,500	325,000
Camp Bowie West		500,000	100%	500,000	65,000	-	32,500	32,500	65,000
Camp Bowie West		900,000	100%	900,000	117,000	-	58,500	58,500	117,000
Camp Bowie West		360,000	75%	270,000	35,100	-	17,550	17,550	35,100
Camp Bowie West		475,000	100%	475,000	61,750	-	30,875	30,875	61,750
Camp Bowie West		1,180,000	100%	1,180,000	153,400	-	76,700	76,700	153,400
Chapin		400,000	100%	400,000	52,000	-	26,000	26,000	52,000
Chapin		1,000,000	100%	1,000,000	130,000	-	65,000	65,000	130,000
Normandale		2,500,000	100%	2,500,000	325,000	-	162,500	162,500	325,000
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 25,899,775		\$ 25,449,775	\$ 14,271,038	\$ -	\$ 7,123,632	\$ 7,147,407	\$ 14,271,038

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area T

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area T) <sup>(1)</sup>	9,077
Annual Growth in Vehicle Miles	<u>10</u> years 908

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 48,996	\$ 102,579	\$ 159,741	\$ 216,903	\$ 274,065	\$ 331,227	\$ 388,389	\$ 445,551	\$ 502,712	\$ 559,874	\$ 3,030,037
2017 Vehicle Miles plus Service Area T Growth	1,826,756	1,827,664	1,828,571	1,829,479	1,830,387	1,831,295	1,832,202	1,833,110	1,834,018	1,834,926	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.03	\$ 0.06	\$ 0.09	\$ 0.12	\$ 0.15	\$ 0.18	\$ 0.21	\$ 0.24	\$ 0.27	\$ 0.31	
Annual Growth in Service Area T Vehicle Miles (Cumulative)	908	1,815	2,723	3,631	4,539	5,446	6,354	7,262	8,169	9,077	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 24	\$ 102	\$ 238	\$ 430	\$ 680	\$ 985	\$ 1,347	\$ 1,765	\$ 2,239	\$ 2,770	\$ 10,580
Credit Amount	\$ 10,580										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area U

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	3,502
Existing Fund Balance <sup>(3)</sup>	115,590
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ -
Non-debt Funded New Project Cost <sup>(5)</sup>	49,092,493
New Project Cost Funded Through New Debt <sup>(6)</sup>	49,068,718
Total Recoverable Project Cost <sup>(7)</sup>	\$ 98,161,210

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 4,906,872	3.25%	20
2	4,906,872	4.25%	20
3	4,906,872	5.00%	20
4	4,906,872	5.00%	20
5	4,906,872	5.00%	20
6	4,906,872	5.00%	20
7	4,906,872	5.00%	20
8	4,906,872	5.00%	20
9	4,906,872	5.00%	20
10	4,906,872	5.00%	20
Total	\$ 49,068,718		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 7,362,091
2	9,816,121
3	9,816,121
4	9,816,121
5	9,816,121
6	9,816,121
7	9,816,121
8	9,816,121
9	9,816,121
10	12,270,151
Total	\$ 98,161,210

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Not Applicable for this Area  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area U

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 337,489	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 337,489
2	337,489	369,094	-	-	-	-	-	-	-	-	706,583
3	337,489	369,094	393,740	-	-	-	-	-	-	-	1,100,323
4	337,489	369,094	393,740	393,740	-	-	-	-	-	-	1,494,063
5	337,489	369,094	393,740	393,740	393,740	-	-	-	-	-	1,887,803
6	337,489	369,094	393,740	393,740	393,740	393,740	-	-	-	-	2,281,544
7	337,489	369,094	393,740	393,740	393,740	393,740	393,740	-	-	-	2,675,284
8	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	-	-	3,069,024
9	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	-	3,462,764
10	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
11	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
12	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
13	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
14	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
15	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
16	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
17	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
18	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
19	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
20	337,489	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,856,504
21	-	369,094	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,519,015
22	-	-	393,740	393,740	393,740	393,740	393,740	393,740	393,740	393,740	3,149,921
23	-	-	-	393,740	393,740	393,740	393,740	393,740	393,740	393,740	2,756,181
24	-	-	-	-	393,740	393,740	393,740	393,740	393,740	393,740	2,362,441
25	-	-	-	-	-	393,740	393,740	393,740	393,740	393,740	1,968,700
26	-	-	-	-	-	-	393,740	393,740	393,740	393,740	1,574,960
27	-	-	-	-	-	-	-	393,740	393,740	393,740	1,181,220
28	-	-	-	-	-	-	-	-	393,740	393,740	787,480
29	-	-	-	-	-	-	-	-	-	393,740	393,740
	\$ 6,749,783	\$ 7,381,882	\$ 7,874,802	\$ 7,874,802	\$ 7,874,802	\$ 7,874,802	\$ 7,874,802	\$ 7,874,802	\$ 7,874,802	\$ 7,874,802	\$ 77,130,078

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Appendix E - Impact Fee Calculation Assumptions**

**II. Summary of Annual Expenses**

<b>Year</b>	<b>New Annual Debt Service<sup>(1)</sup></b>	<b>Annual Capital Expenditures<sup>(2)</sup></b>	<b>Annual Bond Proceeds<sup>(2)</sup></b>	<b>Existing Annual Debt Service<sup>(3)</sup></b>	<b>Annual Credit<sup>(4)</sup></b>	<b>Total Expense</b>
<b>1</b>	\$ 337,489	\$ 7,362,091	\$ (4,906,872)	\$ -	\$ (646)	\$ 2,792,062
<b>2</b>	706,583	9,816,121	(4,906,872)	-	(2,700)	5,613,132
<b>3</b>	1,100,323	9,816,121	(4,906,872)	-	(6,296)	6,003,277
<b>4</b>	1,494,063	9,816,121	(4,906,872)	-	(11,376)	6,391,936
<b>5</b>	1,887,803	9,816,121	(4,906,872)	-	(17,934)	6,779,119
<b>6</b>	2,281,544	9,816,121	(4,906,872)	-	(25,960)	7,164,833
<b>7</b>	2,675,284	9,816,121	(4,906,872)	-	(35,446)	7,549,087
<b>8</b>	3,069,024	9,816,121	(4,906,872)	-	(46,384)	7,931,889
<b>9</b>	3,462,764	9,816,121	(4,906,872)	-	(58,766)	8,313,247
<b>10</b>	3,856,504	12,270,151	(4,906,872)	-	(72,583)	11,147,200
<b>11</b>	3,856,504	-	-	-	-	3,856,504
<b>12</b>	3,856,504	-	-	-	-	3,856,504
<b>13</b>	3,856,504	-	-	-	-	3,856,504
<b>14</b>	3,856,504	-	-	-	-	3,856,504
<b>15</b>	3,856,504	-	-	-	-	3,856,504
<b>16</b>	3,856,504	-	-	-	-	3,856,504
<b>17</b>	3,856,504	-	-	-	-	3,856,504
<b>18</b>	3,856,504	-	-	-	-	3,856,504
<b>19</b>	3,856,504	-	-	-	-	3,856,504
<b>20</b>	3,856,504	-	-	-	-	3,856,504
<b>21</b>	3,519,015	-	-	-	-	3,519,015
<b>22</b>	3,149,921	-	-	-	-	3,149,921
<b>23</b>	2,756,181	-	-	-	-	2,756,181
<b>24</b>	2,362,441	-	-	-	-	2,362,441
<b>25</b>	1,968,700	-	-	-	-	1,968,700
<b>26</b>	1,574,960	-	-	-	-	1,574,960
<b>27</b>	1,181,220	-	-	-	-	1,181,220
<b>28</b>	787,480	-	-	-	-	787,480
<b>29</b>	393,740	-	-	-	-	393,740
	<b>\$ 77,130,078</b>	<b>\$ 98,161,210</b>	<b>\$ (49,068,718)</b>	<b>\$ -</b>	<b>\$ (278,091)</b>	<b>\$ 125,944,480</b>



City of Fort Worth - 2017 Transportation Impact Fee Study  
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**III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>**

The projects related to this area have not been previously funded with debt.

**IV. Summary of Debt Financing**

Existing Debt Funded Project Costs <sup>(5)</sup>	-
-Less Principal PTD	-
Outstanding Debt Principal	-
New Project Costs Debt Principal <sup>(5)</sup>	49,068,718
<b>Principal Component</b>	<b>\$ 49,068,718</b>

(1) Appendix E - Service Area U, Page 2

(2) Appendix E - Service Area U, Page 1

(3) Not Applicable for this Area

(4) Appendix E - Service Area U, Page 8

(5) Appendix E - Service Area U, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area U

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
<b>Initial</b>							\$ 115,590
<b>1</b>	\$ 3,457	3,502	\$ 12,109,100	\$ 2,792,062	\$ 9,317,038	31,032	9,463,660
<b>2</b>	3,457	3,502	12,109,100	5,613,132	6,495,968	82,626	16,042,253
<b>3</b>	3,457	3,502	12,109,100	6,003,277	6,105,823	124,119	22,272,195
<b>4</b>	3,457	3,502	12,109,100	6,391,936	5,717,164	163,350	28,152,709
<b>5</b>	3,457	3,502	12,109,100	6,779,119	5,329,981	200,315	33,683,005
<b>6</b>	3,457	3,502	12,109,100	7,164,833	4,944,267	235,008	38,862,280
<b>7</b>	3,457	3,502	12,109,100	7,549,087	4,560,013	267,425	43,689,719
<b>8</b>	3,457	3,502	12,109,100	7,931,889	4,177,211	297,559	48,164,489
<b>9</b>	3,457	3,502	12,109,100	8,313,247	3,795,853	325,406	52,285,747
<b>10</b>	3,457	3,502	12,109,100	11,147,200	961,900	342,984	53,590,630
<b>11</b>	-	-	-	3,856,504	(3,856,504)	335,805	50,069,932
<b>12</b>	-	-	-	3,856,504	(3,856,504)	312,921	46,526,349
<b>13</b>	-	-	-	3,856,504	(3,856,504)	289,888	42,959,733
<b>14</b>	-	-	-	3,856,504	(3,856,504)	266,705	39,369,933
<b>15</b>	-	-	-	3,856,504	(3,856,504)	243,371	35,756,800
<b>16</b>	-	-	-	3,856,504	(3,856,504)	219,886	32,120,182
<b>17</b>	-	-	-	3,856,504	(3,856,504)	196,248	28,459,926
<b>18</b>	-	-	-	3,856,504	(3,856,504)	172,456	24,775,878
<b>19</b>	-	-	-	3,856,504	(3,856,504)	148,510	21,067,883
<b>20</b>	-	-	-	3,856,504	(3,856,504)	124,408	17,335,787
<b>21</b>	-	-	-	3,519,015	(3,519,015)	101,246	13,918,018
<b>22</b>	-	-	-	3,149,921	(3,149,921)	80,230	10,848,327
<b>23</b>	-	-	-	2,756,181	(2,756,181)	61,557	8,153,703
<b>24</b>	-	-	-	2,362,441	(2,362,441)	45,321	5,836,584
<b>25</b>	-	-	-	1,968,700	(1,968,700)	31,540	3,899,423
<b>26</b>	-	-	-	1,574,960	(1,574,960)	20,228	2,344,690
<b>27</b>	-	-	-	1,181,220	(1,181,220)	11,402	1,174,872
<b>28</b>	-	-	-	787,480	(787,480)	5,077	392,469
<b>29</b>	-	-	-	393,740	(393,740)	1,271	-
			121,091,000	125,944,480		4,737,889	

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Service Area U

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	3,502	4,213	\$ 2,792,062	\$ 3,358,304
2	28	1.1950	1.0000	3,502	4,185	5,613,132	6,707,898
3	27	1.1873	1.0000	3,502	4,158	6,003,277	7,127,805
4	26	1.1797	1.0000	3,502	4,132	6,391,936	7,540,256
5	25	1.1720	1.0000	3,502	4,105	6,779,119	7,945,352
6	24	1.1645	1.0000	3,502	4,078	7,164,833	8,343,190
7	23	1.1569	1.0000	3,502	4,052	7,549,087	8,733,870
8	22	1.1495	1.0000	3,502	4,026	7,931,889	9,117,487
9	21	1.1420	1.0000	3,502	4,000	8,313,247	9,494,136
10	20	1.1347	1.0000	3,502	3,974	11,147,200	12,648,435
11	19	1.1273	1.0000	-	-	3,856,504	4,347,614
12	18	1.1201	1.0000	-	-	3,856,504	4,319,537
13	17	1.1128	1.0000	-	-	3,856,504	4,291,641
14	16	1.1056	1.0000	-	-	3,856,504	4,263,926
15	15	1.0985	1.0000	-	-	3,856,504	4,236,389
16	14	1.0914	1.0000	-	-	3,856,504	4,209,031
17	13	1.0844	1.0000	-	-	3,856,504	4,181,849
18	12	1.0774	1.0000	-	-	3,856,504	4,154,842
19	11	1.0704	1.0000	-	-	3,856,504	4,128,010
20	10	1.0635	1.0000	-	-	3,856,504	4,101,351
21	9	1.0566	1.0000	-	-	3,519,015	3,718,266
22	8	1.0498	1.0000	-	-	3,149,921	3,306,780
23	7	1.0430	1.0000	-	-	2,756,181	2,874,746
24	6	1.0363	1.0000	-	-	2,362,441	2,448,155
25	5	1.0296	1.0000	-	-	1,968,700	2,026,954
26	4	1.0229	1.0000	-	-	1,574,960	1,611,091
27	3	1.0163	1.0000	-	-	1,181,220	1,200,515
28	2	1.0098	1.0000	-	-	787,480	795,175
29	1	1.0033	1.0000	-	-	393,740	395,020
					40,923	125,944,480	141,627,625

Total Escalated Expense for Entire Period	\$ 141,627,625
Less Future Value of Initial Fund Balance	139,483
Net Escalated Expense for Entire Period	\$ 141,488,142
Total Escalated Service Units	40,923
<b>Impact Fee for Service Area U</b>	<b>\$ 3,457</b>

City of Fort Worth - 2017 Transportation Impact Fee Study

Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area U

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Old Weatherford (1)	U-1	\$ 5,021,000	100%	\$ 5,021,000	\$ 2,750,298	\$ -	\$ 1,375,149	\$ 1,375,149	\$ 2,750,298
Old Weatherford (2)	U-2	1,818,000	100%	1,818,000	995,826	-	497,913	497,913	995,826
Quail Meadow (1)	U-3	7,731,000	100%	7,731,000	4,234,724	-	2,117,362	2,117,362	4,234,724
Quail Meadow (2)	U-4	12,930,000	100%	12,930,000	7,082,523	-	3,541,261	3,541,261	7,082,523
Quail Meadow (3)	U-5	7,927,000	100%	7,927,000	4,342,085	-	2,171,043	2,171,043	4,342,085
Quail Meadow (4)	U-6	2,888,000	100%	2,888,000	1,581,928	-	790,964	790,964	1,581,928
WR #1 (1)	U-7	2,909,000	100%	2,909,000	1,593,431	-	796,715	796,715	1,593,431
WR #1 (2)	U-8	4,163,000	100%	4,163,000	2,280,320	-	1,140,160	1,140,160	2,280,320
WR #1 (3)	U-9	11,535,000	100%	11,535,000	6,318,399	-	3,159,200	3,159,200	6,318,399
WR #1 (4)	U-10	12,759,000	100%	12,759,000	6,988,856	-	3,494,428	3,494,428	6,988,856
WR #1 (5)	U-11	3,979,000	100%	3,979,000	2,179,533	-	1,089,766	1,089,766	2,179,533
WR #2 (1)	U-12	5,152,000	100%	5,152,000	2,822,054	-	1,411,027	1,411,027	2,822,054
WR #2 (2)	U-13	4,572,000	100%	4,572,000	2,504,354	-	1,252,177	1,252,177	2,504,354
WR #3 (1)	U-14	4,059,000	100%	4,059,000	2,223,353	-	1,111,677	1,111,677	2,223,353
WR #3 (2)	U-15	11,116,000	100%	11,116,000	6,088,888	-	3,044,444	3,044,444	6,088,888
WR #3 (3)	U-16	5,426,000	100%	5,426,000	2,972,140	-	1,486,070	1,486,070	2,972,140
Aledo Rd	U-17	740,000	100%	740,000	405,342	-	202,671	202,671	405,342
WR #4	U-18	1,392,000	100%	1,392,000	762,480	-	381,240	381,240	762,480
WR #5 (1)	U-19	2,841,000	100%	2,841,000	1,556,183	-	778,092	778,092	1,556,183
WR #5 (2)	U-20	4,891,000	100%	4,891,000	2,679,089	-	1,339,544	1,339,544	2,679,089
WR #5 (3)	U-21	2,027,000	100%	2,027,000	1,110,307	-	555,154	555,154	1,110,307
WR #5 (4)	U-22	4,966,000	100%	4,966,000	2,720,171	-	1,360,085	1,360,085	2,720,171
WR #6	U-23	1,756,000	100%	1,756,000	961,865	-	480,932	480,932	961,865
Walsh Ranch (1)	U-24	1,032,000	100%	1,032,000	565,287	-	282,644	282,644	565,287
Walsh Ranch (2)	U-25	1,774,000	100%	1,774,000	971,724	-	485,862	485,862	971,724
Walsh Ranch (3)	U-26	968,000	100%	968,000	530,231	-	265,115	265,115	530,231
Walsh Ranch (4)	U-27	916,000	100%	916,000	501,747	-	250,874	250,874	501,747
Walsh Ranch (5)	U-28	5,604,000	100%	5,604,000	3,069,641	-	1,534,821	1,534,821	3,069,641
Walsh Ranch (6)	U-29	3,025,000	100%	3,025,000	1,656,971	-	828,485	828,485	1,656,971
Walsh Ranch (7)	U-30	4,240,000	100%	4,240,000	2,322,498	-	1,161,249	1,161,249	2,322,498
Walsh Ranch (8)	U-31	5,526,000	100%	5,526,000	3,026,916	-	1,513,458	1,513,458	3,026,916
Walsh Ranch (9)	U-32	5,055,000	100%	5,055,000	2,768,921	-	1,384,461	1,384,461	2,768,921
Walsh Ranch (10)	U-33	1,137,000	100%	1,137,000	622,802	-	311,401	311,401	622,802
WR #7 (1)	U-34	7,301,000	100%	7,301,000	3,999,188	-	1,999,594	1,999,594	3,999,188
WR #7 (2)	U-35	1,669,000	100%	1,669,000	914,210	-	457,105	457,105	914,210
WR #7 (3)	U-36	7,073,000	100%	7,073,000	3,874,299	-	1,937,149	1,937,149	3,874,299
WR #7 (4)	U-37	2,435,000	100%	2,435,000	1,333,793	-	666,896	666,896	1,333,793
WR #7 (5)	U-38	3,054,000	100%	3,054,000	1,672,856	-	836,428	836,428	1,672,856
WR #7 (6)	U-39	2,743,000	100%	2,743,000	1,502,503	-	751,251	751,251	1,502,503
Old Weatherford		600,000	100%	600,000	93,600	-	46,800	46,800	93,600
Quail Meadow		1,000,000	100%	1,000,000	156,000	-	78,000	78,000	156,000
Quail Meadow		1,000,000	100%	1,000,000	156,000	-	78,000	78,000	156,000
WR #1		1,000,000	100%	1,000,000	156,000	-	78,000	78,000	156,000
WR #1		1,000,000	100%	1,000,000	156,000	-	78,000	78,000	156,000
WR #1		935,000	100%	935,000	145,860	-	72,930	72,930	145,860
WR #2		935,000	100%	935,000	145,860	-	72,930	72,930	145,860
WR #1		1,000,000	100%	1,000,000	156,000	-	78,000	78,000	156,000
WR #1		1,000,000	100%	1,000,000	156,000	-	78,000	78,000	156,000
WR #3		850,000	100%	850,000	132,600	-	66,300	66,300	132,600
WR #3		1,000,000	100%	1,000,000	156,000	-	78,000	78,000	156,000
WR #4		255,000	100%	255,000	39,780	-	19,890	19,890	39,780
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 186,748,775		\$ 186,748,775	\$ 98,161,210	\$ -	\$ 49,068,718	\$ 49,092,493	\$ 98,161,210

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area U

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area U) <sup>(1)</sup>	35,023
Annual Growth in Vehicle Miles	<u>10</u> years 3,502

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 337,489	\$ 706,583	\$ 1,100,323	\$ 1,494,063	\$ 1,887,803	\$ 2,281,544	\$ 2,675,284	\$ 3,069,024	\$ 3,462,764	\$ 3,856,504	\$ 20,871,381
2017 Vehicle Miles plus Service Area U Growth	1,829,351	1,832,853	1,836,355	1,839,858	1,843,360	1,846,862	1,850,365	1,853,867	1,857,369	1,860,872	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.18	\$ 0.39	\$ 0.60	\$ 0.81	\$ 1.02	\$ 1.24	\$ 1.45	\$ 1.66	\$ 1.86	\$ 2.07	
Annual Growth in Service Area U Vehicle Miles (Cumulative)	3,502	7,005	10,507	14,009	17,512	21,014	24,516	28,019	31,521	35,023	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 646	\$ 2,700	\$ 6,296	\$ 11,376	\$ 17,934	\$ 25,960	\$ 35,446	\$ 46,384	\$ 58,766	\$ 72,583	\$ 278,091
Credit Amount	\$ 278,091										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area V

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	198
Existing Fund Balance <sup>(3)</sup>	-
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ -
Non-debt Funded New Project Cost <sup>(5)</sup>	2,633,614
New Project Cost Funded Through New Debt <sup>(6)</sup>	2,609,839
Total Recoverable Project Cost <sup>(7)</sup>	\$ 5,243,452

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 260,984	3.25%	20
2	260,984	4.25%	20
3	260,984	5.00%	20
4	260,984	5.00%	20
5	260,984	5.00%	20
6	260,984	5.00%	20
7	260,984	5.00%	20
8	260,984	5.00%	20
9	260,984	5.00%	20
10	260,984	5.00%	20
Total	\$ 2,609,839		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 393,259
2	524,345
3	524,345
4	524,345
5	524,345
6	524,345
7	524,345
8	524,345
9	524,345
10	655,432
Total	\$ 5,243,452

- (1) Annual return as of 2017  
 (2) Derived from the 10-year Growth Projections Report, Table 7  
 (3) Balances provided by City Staff as of August 2017  
 (4) Not Applicable for this Area  
 (5) Assumes 50% of new project costs funded through sources other than debt  
 (6) Assumes 50% of new project costs funded through new debt issues  
 (7) Line 15 of the Max Fee Table Report  
 (8) Assumes new debt issued in equal annual amounts  
 (9) Estimated interest cost provided by City Staff  
 (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area V

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 17,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,950
2	17,950	19,631	-	-	-	-	-	-	-	-	37,581
3	17,950	19,631	20,942	-	-	-	-	-	-	-	58,523
4	17,950	19,631	20,942	20,942	-	-	-	-	-	-	79,465
5	17,950	19,631	20,942	20,942	20,942	-	-	-	-	-	100,407
6	17,950	19,631	20,942	20,942	20,942	20,942	-	-	-	-	121,349
7	17,950	19,631	20,942	20,942	20,942	20,942	20,942	-	-	-	142,291
8	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	-	-	163,233
9	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	-	184,175
10	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
11	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
12	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
13	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
14	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
15	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
16	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
17	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
18	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
19	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
20	17,950	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	205,117
21	-	19,631	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	187,167
22	-	-	20,942	20,942	20,942	20,942	20,942	20,942	20,942	20,942	167,536
23	-	-	-	20,942	20,942	20,942	20,942	20,942	20,942	20,942	146,594
24	-	-	-	-	20,942	20,942	20,942	20,942	20,942	20,942	125,652
25	-	-	-	-	-	20,942	20,942	20,942	20,942	20,942	104,710
26	-	-	-	-	-	-	20,942	20,942	20,942	20,942	83,768
27	-	-	-	-	-	-	-	20,942	20,942	20,942	62,826
28	-	-	-	-	-	-	-	-	20,942	20,942	41,884
29	-	-	-	-	-	-	-	-	-	20,942	20,942
	\$ 359,004	\$ 392,623	\$ 418,840	\$ 418,840	\$ 418,840	\$ 418,840	\$ 418,840	\$ 418,840	\$ 418,840	\$ 418,840	\$ 4,102,350

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions

II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 17,950	\$ 393,259	\$ (260,984)	\$ -	\$ (2)	\$ 150,223
2	37,581	524,345	(260,984)	-	(8)	300,935
3	58,523	524,345	(260,984)	-	(19)	321,866
4	79,465	524,345	(260,984)	-	(35)	342,792
5	100,407	524,345	(260,984)	-	(54)	363,714
6	121,349	524,345	(260,984)	-	(79)	384,632
7	142,291	524,345	(260,984)	-	(108)	405,545
8	163,233	524,345	(260,984)	-	(142)	426,453
9	184,175	524,345	(260,984)	-	(180)	447,357
10	205,117	655,432	(260,984)	-	(223)	599,343
11	205,117	-	-	-	-	205,117
12	205,117	-	-	-	-	205,117
13	205,117	-	-	-	-	205,117
14	205,117	-	-	-	-	205,117
15	205,117	-	-	-	-	205,117
16	205,117	-	-	-	-	205,117
17	205,117	-	-	-	-	205,117
18	205,117	-	-	-	-	205,117
19	205,117	-	-	-	-	205,117
20	205,117	-	-	-	-	205,117
21	187,167	-	-	-	-	187,167
22	167,536	-	-	-	-	167,536
23	146,594	-	-	-	-	146,594
24	125,652	-	-	-	-	125,652
25	104,710	-	-	-	-	104,710
26	83,768	-	-	-	-	83,768
27	62,826	-	-	-	-	62,826
28	41,884	-	-	-	-	41,884
29	20,942	-	-	-	-	20,942
	\$ 4,102,350	\$ 5,243,452	\$ (2,609,839)	\$ -	\$ (849)	\$ 6,735,114



City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions

**III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>**

The projects related to this area have not been previously funded with debt.

**IV. Summary of Debt Financing**

Existing Debt Funded Project Costs <sup>(5)</sup>	-
-Less Principal PTD	-
Outstanding Debt Principal	-
New Project Costs Debt Principal <sup>(5)</sup>	2,609,839
<b>Principal Component</b>	<b>\$ 2,609,839</b>

(1) Appendix E - Service Area V, Page 2

(2) Appendix E - Service Area V, Page 1

(3) Not Applicable for this Area

(4) Appendix E - Service Area V, Page 8

(5) Appendix E - Service Area V, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area V

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ -
1	\$ 3,269	198	\$ 648,307	\$ 150,223	\$ 498,084	1,619	499,703
2	3,269	198	648,307	300,935	347,373	4,377	851,452
3	3,269	198	648,307	321,866	326,442	6,595	1,184,489
4	3,269	198	648,307	342,792	305,515	8,692	1,498,697
5	3,269	198	648,307	363,714	284,593	10,666	1,793,956
6	3,269	198	648,307	384,632	263,675	12,518	2,070,149
7	3,269	198	648,307	405,545	242,763	14,245	2,327,157
8	3,269	198	648,307	426,453	221,854	15,848	2,564,858
9	3,269	198	648,307	447,357	200,950	17,325	2,783,133
10	3,269	198	648,307	599,343	48,965	18,250	2,850,347
11	-	-	-	205,117	(205,117)	17,861	2,663,091
12	-	-	-	205,117	(205,117)	16,643	2,474,616
13	-	-	-	205,117	(205,117)	15,418	2,284,917
14	-	-	-	205,117	(205,117)	14,185	2,093,985
15	-	-	-	205,117	(205,117)	12,944	1,901,812
16	-	-	-	205,117	(205,117)	11,695	1,708,390
17	-	-	-	205,117	(205,117)	10,438	1,513,710
18	-	-	-	205,117	(205,117)	9,172	1,317,765
19	-	-	-	205,117	(205,117)	7,899	1,120,546
20	-	-	-	205,117	(205,117)	6,617	922,046
21	-	-	-	187,167	(187,167)	5,385	740,263
22	-	-	-	167,536	(167,536)	4,267	576,995
23	-	-	-	146,594	(146,594)	3,274	433,674
24	-	-	-	125,652	(125,652)	2,411	310,433
25	-	-	-	104,710	(104,710)	1,678	207,400
26	-	-	-	83,768	(83,768)	1,076	124,708
27	-	-	-	62,826	(62,826)	606	62,488
28	-	-	-	41,884	(41,884)	270	20,874
29	-	-	-	20,942	(20,942)	68	-
			6,483,072	6,735,114		252,042	

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area V

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	198	239	\$ 150,223	\$ 180,689
2	28	1.1950	1.0000	198	237	300,935	359,628
3	27	1.1873	1.0000	198	235	321,866	382,157
4	26	1.1797	1.0000	198	234	342,792	404,375
5	25	1.1720	1.0000	198	232	363,714	426,285
6	24	1.1645	1.0000	198	231	384,632	447,890
7	23	1.1569	1.0000	198	229	405,545	469,192
8	22	1.1495	1.0000	198	228	426,453	490,196
9	21	1.1420	1.0000	198	226	447,357	510,904
10	20	1.1347	1.0000	198	225	599,343	680,058
11	19	1.1273	1.0000	-	-	205,117	231,238
12	18	1.1201	1.0000	-	-	205,117	229,745
13	17	1.1128	1.0000	-	-	205,117	228,261
14	16	1.1056	1.0000	-	-	205,117	226,787
15	15	1.0985	1.0000	-	-	205,117	225,323
16	14	1.0914	1.0000	-	-	205,117	223,867
17	13	1.0844	1.0000	-	-	205,117	222,422
18	12	1.0774	1.0000	-	-	205,117	220,985
19	11	1.0704	1.0000	-	-	205,117	219,558
20	10	1.0635	1.0000	-	-	205,117	218,140
21	9	1.0566	1.0000	-	-	187,167	197,765
22	8	1.0498	1.0000	-	-	167,536	175,879
23	7	1.0430	1.0000	-	-	146,594	152,900
24	6	1.0363	1.0000	-	-	125,652	130,211
25	5	1.0296	1.0000	-	-	104,710	107,808
26	4	1.0229	1.0000	-	-	83,768	85,690
27	3	1.0163	1.0000	-	-	62,826	63,852
28	2	1.0098	1.0000	-	-	41,884	42,293
29	1	1.0033	1.0000	-	-	20,942	21,010
				2,317		6,735,114	7,575,112

Total Escalated Expense for Entire Period	\$ 7,575,112
Less Future Value of Initial Fund Balance	-
Net Escalated Expense for Entire Period	\$ 7,575,112
Total Escalated Service Units	2,317
<b>Impact Fee for Service Area V</b>	<b>\$ 3,269</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area V

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee Project No.<sup>(1)</sup></u>	<u>Total Project Cost<sup>(1)</sup></u>	<u>Percent in Service Area<sup>(1)</sup></u>	<u>Cost in Service Area<sup>(1)</sup></u>	<u>Impact Fee Recoverable Cost<sup>(2)</sup></u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt Funded<sup>(3)</sup></u>	<u>Impact Fee Recoverable Cost</u>
						<u>Existing</u>	<u>Proposed</u>		
Dean Ranch (1)	V-1	\$ 3,280,000	100%	\$ 3,280,000	\$ 709,211	\$ -	\$ 354,605	\$ 354,605	\$ 709,211
Dean Ranch (2)	V-2	1,712,000	100%	1,712,000	370,173	-	185,087	185,087	370,173
Bear Creek (1)	V-3	4,904,000	100%	4,904,000	1,060,357	-	530,178	530,178	1,060,357
Bear Creek (2)	V-4	3,110,000	100%	3,110,000	672,453	-	336,226	336,226	672,453
Markum Ranch (1)	V-5	5,117,000	50%	2,558,500	553,206	-	276,603	276,603	553,206
Markum Ranch (2)	V-6	8,388,000	100%	8,388,000	1,813,677	-	906,838	906,838	1,813,677
Dean Ranch		400,000	100%	400,000	11,600	-	5,800	5,800	11,600
Bear Creek		1,000,000	100%	1,000,000	29,000	-	14,500	14,500	29,000
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 27,934,775		\$ 25,376,275	\$ 5,243,452	\$ -	\$ 2,609,839	\$ 2,633,614	\$ 5,243,452

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area V

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area V) <sup>(1)</sup>	1,983
Annual Growth in Vehicle Miles	<div>10 years</div> 198

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 17,950	\$ 37,581	\$ 58,523	\$ 79,465	\$ 100,407	\$ 121,349	\$ 142,291	\$ 163,233	\$ 184,175	\$ 205,117	\$ 1,110,095
2017 Vehicle Miles plus Service Area V Growth	1,826,047	1,826,245	1,826,443	1,826,642	1,826,840	1,827,038	1,827,236	1,827,435	1,827,633	1,827,831	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.01	\$ 0.02	\$ 0.03	\$ 0.04	\$ 0.05	\$ 0.07	\$ 0.08	\$ 0.09	\$ 0.10	\$ 0.11	
Annual Growth in Service Area V Vehicle Miles (Cumulative)	198	397	595	793	992	1,190	1,388	1,586	1,785	1,983	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 2	\$ 8	\$ 19	\$ 35	\$ 54	\$ 79	\$ 108	\$ 142	\$ 180	\$ 223	\$ 849
Credit Amount	\$ 849										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area W

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	693
Existing Fund Balance <sup>(3)</sup>	858,591
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 4,013,284
Non-debt Funded New Project Cost <sup>(5)</sup>	3,178,502
New Project Cost Funded Through New Debt <sup>(6)</sup>	3,154,727
Total Recoverable Project Cost <sup>(7)</sup>	\$ 10,346,513

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 315,473	3.25%	20
2	315,473	4.25%	20
3	315,473	5.00%	20
4	315,473	5.00%	20
5	315,473	5.00%	20
6	315,473	5.00%	20
7	315,473	5.00%	20
8	315,473	5.00%	20
9	315,473	5.00%	20
10	315,473	5.00%	20
Total	\$ 3,154,727		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 474,992
2	633,323
3	633,323
4	633,323
5	633,323
6	633,323
7	633,323
8	633,323
9	633,323
10	791,654
Total	\$ 6,333,229

- (1) Annual return as of 2017  
(2) Derived from the 10-year Growth Projections Report, Table 7  
(3) Balances provided by City Staff as of August 2017  
(4) Existing debt funded project costs from details provided by staff  
(5) Assumes 50% of new project costs funded through sources other than debt  
(6) Assumes 50% of new project costs funded through new debt issues  
(7) Line 15 of the Max Fee Table Report  
(8) Assumes new debt issued in equal annual amounts  
(9) Estimated interest cost provided by City Staff  
(10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area W

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 21,698	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 21,698
2	21,698	23,730	-	-	-	-	-	-	-	-	45,428
3	21,698	23,730	25,314	-	-	-	-	-	-	-	70,742
4	21,698	23,730	25,314	25,314	-	-	-	-	-	-	96,056
5	21,698	23,730	25,314	25,314	25,314	-	-	-	-	-	121,371
6	21,698	23,730	25,314	25,314	25,314	25,314	-	-	-	-	146,685
7	21,698	23,730	25,314	25,314	25,314	25,314	25,314	-	-	-	171,999
8	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	-	-	197,314
9	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	-	222,628
10	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
11	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
12	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
13	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
14	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
15	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
16	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
17	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
18	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
19	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
20	21,698	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	247,942
21	-	23,730	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	226,245
22	-	-	25,314	25,314	25,314	25,314	25,314	25,314	25,314	25,314	202,515
23	-	-	-	25,314	25,314	25,314	25,314	25,314	25,314	25,314	177,200
24	-	-	-	-	25,314	25,314	25,314	25,314	25,314	25,314	151,886
25	-	-	-	-	-	25,314	25,314	25,314	25,314	25,314	126,572
26	-	-	-	-	-	-	25,314	25,314	25,314	25,314	101,257
27	-	-	-	-	-	-	-	25,314	25,314	25,314	75,943
28	-	-	-	-	-	-	-	-	25,314	25,314	50,629
29	-	-	-	-	-	-	-	-	-	25,314	25,314
	\$ 433,957	\$ 474,596	\$ 506,287	\$ 506,287	\$ 506,287	\$ 506,287	\$ 506,287	\$ 506,287	\$ 506,287	\$ 506,287	\$ 4,958,848

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions

II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 21,698	\$ 474,992	\$ (315,473)	\$ 263,029	\$ (108)	\$ 444,139
2	45,428	633,323	(315,473)	235,030	(213)	598,095
3	70,742	633,323	(315,473)	211,905	(321)	600,176
4	96,056	633,323	(315,473)	205,043	(456)	618,493
5	121,371	633,323	(315,473)	198,404	(606)	637,019
6	146,685	633,323	(315,473)	191,713	(769)	655,479
7	171,999	633,323	(315,473)	185,179	(946)	674,082
8	197,314	633,323	(315,473)	178,742	(1,138)	692,768
9	222,628	633,323	(315,473)	172,412	(1,345)	711,546
10	247,942	791,654	(315,473)	164,085	(1,558)	886,650
11	247,942	-	-	224,686	-	472,629
12	247,942	-	-	123,664	-	371,606
13	247,942	-	-	36,768	-	284,710
14	247,942	-	-	35,521	-	283,464
15	247,942	-	-	34,251	-	282,194
16	247,942	-	-	3,404	-	251,346
17	247,942	-	-	3,300	-	251,242
18	247,942	-	-	3,194	-	251,136
19	247,942	-	-	-	-	247,942
20	247,942	-	-	-	-	247,942
21	226,245	-	-	-	-	226,245
22	202,515	-	-	-	-	202,515
23	177,200	-	-	-	-	177,200
24	151,886	-	-	-	-	151,886
25	126,572	-	-	-	-	126,572
26	101,257	-	-	-	-	101,257
27	75,943	-	-	-	-	75,943
28	50,629	-	-	-	-	50,629
29	25,314	-	-	-	-	25,314
	\$ 4,958,848	\$ 6,333,229	\$ (3,154,727)	\$ 2,470,330	\$ (7,461)	\$ 10,600,219



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2007 CO</u>	<u>2008 CO</u>	<u>2009 CO</u>	<u>2012 GO</u>	<u>2012 CO</u>	<u>2015A GO</u>	<u>TOTAL</u>
2007	-						-
2008	26,544	-					26,544
2009	26,544	103,991	-				130,535
2010	26,544	32,458	284,040				343,042
2011	26,544	32,458	153,301				212,304
2012	26,544	32,458	153,301	-	-		212,304
2013	26,544	32,458	153,301	10,186	21,799		244,289
2014	26,544	32,458	153,301	10,186	21,847		244,338
2015	26,544	32,458	153,091	10,186	21,823	-	244,102
2016	26,544	32,458	153,091	10,198	21,823	18,906	263,021
2017	26,544	32,458	100,584	10,186	21,847	5,235	196,855
	\$ 265,442	\$ 363,655	\$ 1,304,012	\$ 50,944	\$ 109,140	\$ 24,141	\$ 2,117,333

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	4,013,284
-Less Principal PTD	2,117,333
Outstanding Debt Principal	1,895,951
New Project Costs Debt Principal(5)	3,154,727
<b>Principal Component</b>	<b>\$ 5,050,678</b>

(1) Appendix E - Service Area W, Page 2

(2) Appendix E - Service Area W, Page 1

(3) Existing debt funded project costs from details provided by staff

(4) Appendix E - Service Area W, Page 8

(5) Appendix E - Service Area W, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area W

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 858,591
1	\$ 1,356	693	\$ 939,455	\$ 444,139	\$ 495,317	7,191	1,361,099
2	1,356	693	939,455	598,095	341,360	9,957	1,712,416
3	1,356	693	939,455	600,176	339,280	12,233	2,063,929
4	1,356	693	939,455	618,493	320,963	14,459	2,399,350
5	1,356	693	939,455	637,019	302,437	16,579	2,718,365
6	1,356	693	939,455	655,479	283,976	18,592	3,020,934
7	1,356	693	939,455	674,082	265,373	20,499	3,306,805
8	1,356	693	939,455	692,768	246,688	22,296	3,575,789
9	1,356	693	939,455	711,546	227,910	23,983	3,827,682
10	1,356	693	939,455	886,650	52,805	25,052	3,905,539
11	-	-	-	472,629	(472,629)	23,850	3,456,760
12	-	-	-	371,606	(371,606)	21,261	3,106,415
13	-	-	-	284,710	(284,710)	19,266	2,840,971
14	-	-	-	283,464	(283,464)	17,545	2,575,053
15	-	-	-	282,194	(282,194)	15,821	2,308,680
16	-	-	-	251,346	(251,346)	14,190	2,071,523
17	-	-	-	251,242	(251,242)	12,648	1,832,929
18	-	-	-	251,136	(251,136)	11,098	1,592,891
19	-	-	-	247,942	(247,942)	9,548	1,354,497
20	-	-	-	247,942	(247,942)	7,998	1,114,553
21	-	-	-	226,245	(226,245)	6,509	894,817
22	-	-	-	202,515	(202,515)	5,158	697,461
23	-	-	-	177,200	(177,200)	3,958	524,218
24	-	-	-	151,886	(151,886)	2,914	375,246
25	-	-	-	126,572	(126,572)	2,028	250,702
26	-	-	-	101,257	(101,257)	1,300	150,745
27	-	-	-	75,943	(75,943)	733	75,535
28	-	-	-	50,629	(50,629)	326	25,233
29	-	-	-	25,314	(25,314)	82	-
			9,394,555	10,600,219		347,073	

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area W

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	693	834	\$ 444,139	\$ 534,212
2	28	1.1950	1.0000	693	828	598,095	714,745
3	27	1.1873	1.0000	693	823	600,176	712,600
4	26	1.1797	1.0000	693	818	618,493	729,606
5	25	1.1720	1.0000	693	812	637,019	746,607
6	24	1.1645	1.0000	693	807	655,479	763,282
7	23	1.1569	1.0000	693	802	674,082	779,875
8	22	1.1495	1.0000	693	797	692,768	796,317
9	21	1.1420	1.0000	693	791	711,546	812,620
10	20	1.1347	1.0000	693	786	886,650	1,006,059
11	19	1.1273	1.0000	-	-	472,629	532,816
12	18	1.1201	1.0000	-	-	371,606	416,224
13	17	1.1128	1.0000	-	-	284,710	316,835
14	16	1.1056	1.0000	-	-	283,464	313,410
15	15	1.0985	1.0000	-	-	282,194	309,991
16	14	1.0914	1.0000	-	-	251,346	274,322
17	13	1.0844	1.0000	-	-	251,242	272,438
18	12	1.0774	1.0000	-	-	251,136	270,564
19	11	1.0704	1.0000	-	-	247,942	265,398
20	10	1.0635	1.0000	-	-	247,942	263,684
21	9	1.0566	1.0000	-	-	226,245	239,055
22	8	1.0498	1.0000	-	-	202,515	212,600
23	7	1.0430	1.0000	-	-	177,200	184,823
24	6	1.0363	1.0000	-	-	151,886	157,397
25	5	1.0296	1.0000	-	-	126,572	130,317
26	4	1.0229	1.0000	-	-	101,257	103,580
27	3	1.0163	1.0000	-	-	75,943	77,184
28	2	1.0098	1.0000	-	-	50,629	51,123
29	1	1.0033	1.0000	-	-	25,314	25,397
					8,097	10,600,219	12,013,081

Total Escalated Expense for Entire Period	\$ 12,013,081
Less Future Value of Initial Fund Balance	<u>1,036,062</u>
Net Escalated Expense for Entire Period	\$ 10,977,018
Total Escalated Service Units	<u>8,097</u>
<b>Impact Fee for Service Area W</b>	<b>\$ 1,356</b>

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area W

<u>Impact Fee Project Name<sup>(1)</sup></u>	<u>Impact Fee</u>	<u>Total</u>	<u>Percent in</u>	<u>Cost in</u>	<u>Impact Fee</u>	<u>Debt Funded<sup>(3)</sup></u>		<u>Non-Debt</u>	<u>Impact Fee</u>
	<u>Project No.<sup>(1)</sup></u>	<u>Project Cost<sup>(1)</sup></u>	<u>Service Area<sup>(1)</sup></u>	<u>Service Area<sup>(1)</sup></u>	<u>Recoverable Cost<sup>(2)</sup></u>	<u>Existing</u>	<u>Proposed</u>	<u>Funded<sup>(3)</sup></u>	<u>Recoverable Cost</u>
Lakeside/Altamesa	W-1	\$ 7,457,000	100%	\$ 7,457,000	\$ 4,003,033	\$ -	\$ 2,001,517	\$ 2,001,517	\$ 4,003,033
Altamesa (1)	W-2, Y-1	7,673,507	50%	3,836,753	2,059,629	2,059,629	-	-	2,059,629
Altamesa (2)	W-3, Y-2	2,285,725	50%	1,142,863	613,506	613,506	-	-	613,506
Altamesa (3)	W-4, Y-3	6,367,378	50%	3,183,689	1,709,054	1,340,149	184,452	184,452	1,709,054
Bryant Irvin (1)	W-5, Y-23	3,223,000	50%	1,611,500	865,078	-	432,539	432,539	865,078
Harris	W-6	1,256,097	100%	1,256,097	674,292	-	337,146	337,146	674,292
Altamesa		300,000	75%	225,000	8,550	-	4,275	4,275	8,550
Altamesa		525,000	50%	262,500	9,975	-	4,988	4,988	9,975
Altamesa		230,000	50%	115,000	4,370	-	2,185	2,185	4,370
Altamesa		295,000	50%	147,500	5,605	-	2,803	2,803	5,605
Arborlawn		2,500,000	100%	2,500,000	95,000	-	47,500	47,500	95,000
Arborlawn		230,000	100%	230,000	8,740	-	4,370	4,370	8,740
Bellaire		2,500,000	75%	1,875,000	71,250	-	35,625	35,625	71,250
Bellaire		525,000	50%	262,500	9,975	-	4,988	4,988	9,975
Dutch Branch		2,500,000	100%	2,500,000	95,000	-	47,500	47,500	95,000
Dutch Branch		180,000	100%	180,000	6,840	-	3,420	3,420	6,840
Hulen		180,000	100%	180,000	6,840	-	3,420	3,420	6,840
Oakmont		295,000	100%	295,000	11,210	-	5,605	5,605	11,210
Oakmont		230,000	100%	230,000	8,740	-	4,370	4,370	8,740
Oakmont		295,000	100%	295,000	11,210	-	5,605	5,605	11,210
Oakmont		525,000	100%	525,000	19,950	-	9,975	9,975	19,950
Overton		360,000	100%	360,000	13,680	-	6,840	6,840	13,680
Overton Ridge		295,000	100%	295,000	11,210	-	5,605	5,605	11,210
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 40,251,482		\$ 28,989,177	\$ 10,346,513	#####	\$ 3,154,727	\$ 3,178,502	\$ 10,346,513

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area W

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area W) <sup>(1)</sup>	6,930
Annual Growth in Vehicle Miles	<u>10</u> years 693

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 284,727	\$ 280,458	\$ 282,647	\$ 301,099	\$ 319,774	\$ 338,398	\$ 357,179	\$ 376,056	\$ 395,040	\$ 412,027	\$ 3,347,406
2017 Vehicle Miles plus Service Area W Growth	1,826,541	1,827,234	1,827,927	1,828,620	1,829,313	1,830,006	1,830,699	1,831,392	1,832,085	1,832,778	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.16	\$ 0.15	\$ 0.15	\$ 0.16	\$ 0.17	\$ 0.18	\$ 0.20	\$ 0.21	\$ 0.22	\$ 0.22	
Annual Growth in Service Area W Vehicle Miles (Cumulative)	693	1,386	2,079	2,772	3,465	4,158	4,851	5,544	6,237	6,930	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 108	\$ 213	\$ 321	\$ 456	\$ 606	\$ 769	\$ 946	\$ 1,138	\$ 1,345	\$ 1,558	\$ 7,461
Credit Amount	\$ 7,461										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area X

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	1,467
Existing Fund Balance <sup>(3)</sup>	2,282,342
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ -
Non-debt Funded New Project Cost <sup>(5)</sup>	23,542,657
New Project Cost Funded Through New Debt <sup>(6)</sup>	23,518,882
Total Recoverable Project Cost <sup>(7)</sup>	\$ 47,061,539

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 2,351,888	3.25%	20
2	2,351,888	4.25%	20
3	2,351,888	5.00%	20
4	2,351,888	5.00%	20
5	2,351,888	5.00%	20
6	2,351,888	5.00%	20
7	2,351,888	5.00%	20
8	2,351,888	5.00%	20
9	2,351,888	5.00%	20
10	2,351,888	5.00%	20
Total	\$ 23,518,882		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 3,529,615
2	4,706,154
3	4,706,154
4	4,706,154
5	4,706,154
6	4,706,154
7	4,706,154
8	4,706,154
9	4,706,154
10	5,882,692
Total	\$ 47,061,539

- (1) Annual return as of 2017
- (2) Derived from the 10-year Growth Projections Report, Table 7
- (3) Balances provided by City Staff as of August 2017
- (4) Not Applicable for this Area
- (5) Assumes 50% of new project costs funded through sources other than debt
- (6) Assumes 50% of new project costs funded through new debt issues
- (7) Line 15 of the Max Fee Table Report
- (8) Assumes new debt issued in equal annual amounts
- (9) Estimated interest cost provided by City Staff
- (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area X

### I. New Debt Service Detail

<u>Year</u>	<u>Series 1</u>	<u>Series 2</u>	<u>Series 3</u>	<u>Series 4</u>	<u>Series 5</u>	<u>Series 6</u>	<u>Series 7</u>	<u>Series 8</u>	<u>Series 9</u>	<u>Series 10</u>	<u>Total Annual New Debt Service</u>
1	\$ 161,760	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 161,760
2	161,760	176,909	-	-	-	-	-	-	-	-	338,669
3	161,760	176,909	188,722	-	-	-	-	-	-	-	527,390
4	161,760	176,909	188,722	188,722	-	-	-	-	-	-	716,112
5	161,760	176,909	188,722	188,722	188,722	-	-	-	-	-	904,834
6	161,760	176,909	188,722	188,722	188,722	188,722	-	-	-	-	1,093,555
7	161,760	176,909	188,722	188,722	188,722	188,722	188,722	-	-	-	1,282,277
8	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	-	-	1,470,998
9	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	-	1,659,720
10	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
11	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
12	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
13	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
14	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
15	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
16	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
17	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
18	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
19	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
20	161,760	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,848,442
21	-	176,909	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,686,681
22	-	-	188,722	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,509,773
23	-	-	-	188,722	188,722	188,722	188,722	188,722	188,722	188,722	1,321,051
24	-	-	-	-	188,722	188,722	188,722	188,722	188,722	188,722	1,132,330
25	-	-	-	-	-	188,722	188,722	188,722	188,722	188,722	943,608
26	-	-	-	-	-	-	188,722	188,722	188,722	188,722	754,886
27	-	-	-	-	-	-	-	188,722	188,722	188,722	566,165
28	-	-	-	-	-	-	-	-	188,722	188,722	377,443
29	-	-	-	-	-	-	-	-	-	188,722	188,722
	\$ 3,235,205	\$ 3,538,173	\$ 3,774,432	\$ 3,774,432	\$ 3,774,432	\$ 3,774,432	\$ 3,774,432	\$ 3,774,432	\$ 3,774,432	\$ 3,774,432	\$ 36,968,833

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions

II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital Expenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ 161,760	\$ 3,529,615	\$ (2,351,888)	\$ -	\$ (130)	\$ 1,339,358
2	338,669	4,706,154	(2,351,888)	-	(543)	2,692,391
3	527,390	4,706,154	(2,351,888)	-	(1,268)	2,880,388
4	716,112	4,706,154	(2,351,888)	-	(2,294)	3,068,084
5	904,834	4,706,154	(2,351,888)	-	(3,620)	3,255,479
6	1,093,555	4,706,154	(2,351,888)	-	(5,246)	3,442,575
7	1,282,277	4,706,154	(2,351,888)	-	(7,171)	3,629,371
8	1,470,998	4,706,154	(2,351,888)	-	(9,394)	3,815,870
9	1,659,720	4,706,154	(2,351,888)	-	(11,915)	4,002,071
10	1,848,442	5,882,692	(2,351,888)	-	(14,732)	5,364,513
11	1,848,442	-	-	-	-	1,848,442
12	1,848,442	-	-	-	-	1,848,442
13	1,848,442	-	-	-	-	1,848,442
14	1,848,442	-	-	-	-	1,848,442
15	1,848,442	-	-	-	-	1,848,442
16	1,848,442	-	-	-	-	1,848,442
17	1,848,442	-	-	-	-	1,848,442
18	1,848,442	-	-	-	-	1,848,442
19	1,848,442	-	-	-	-	1,848,442
20	1,848,442	-	-	-	-	1,848,442
21	1,686,681	-	-	-	-	1,686,681
22	1,509,773	-	-	-	-	1,509,773
23	1,321,051	-	-	-	-	1,321,051
24	1,132,330	-	-	-	-	1,132,330
25	943,608	-	-	-	-	943,608
26	754,886	-	-	-	-	754,886
27	566,165	-	-	-	-	566,165
28	377,443	-	-	-	-	377,443
29	188,722	-	-	-	-	188,722
	\$ 36,968,833	\$ 47,061,539	\$ (23,518,882)	\$ -	\$ (56,315)	\$ 60,455,175



City of Fort Worth - 2017 Transportation Impact Fee Study  
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**III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>**

The projects related to this area have not been previously funded with debt.

**IV. Summary of Debt Financing**

Existing Debt Funded Project Costs <sup>(5)</sup>	-
-Less Principal PTD	-
Outstanding Debt Principal	-
New Project Costs Debt Principal <sup>(5)</sup>	23,518,882
<b>Principal Component</b>	<b>\$ 23,518,882</b>

(1) Appendix E - Service Area X, Page 2

(2) Appendix E - Service Area X, Page 1

(3) Not Applicable for this Area

(4) Appendix E - Service Area X, Page 8

(5) Appendix E - Service Area X, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area X

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 2,282,342
1	\$ 3,806	1,467	\$ 5,582,783	\$ 1,339,358	\$ 4,243,425	28,626	6,554,394
2	3,806	1,467	5,582,783	2,692,391	2,890,392	51,997	9,496,783
3	3,806	1,467	5,582,783	2,880,388	2,702,395	70,512	12,269,689
4	3,806	1,467	5,582,783	3,068,084	2,514,699	87,926	14,872,314
5	3,806	1,467	5,582,783	3,255,479	2,327,304	104,234	17,303,852
6	3,806	1,467	5,582,783	3,442,575	2,140,208	119,431	19,563,490
7	3,806	1,467	5,582,783	3,629,371	1,953,411	133,511	21,650,413
8	3,806	1,467	5,582,783	3,815,870	1,766,913	146,470	23,563,796
9	3,806	1,467	5,582,783	4,002,071	1,580,712	158,302	25,302,810
10	3,806	1,467	5,582,783	5,364,513	218,270	165,178	25,686,258
11	-	-	-	1,848,442	(1,848,442)	160,953	23,998,769
12	-	-	-	1,848,442	(1,848,442)	149,985	22,300,312
13	-	-	-	1,848,442	(1,848,442)	138,945	20,590,815
14	-	-	-	1,848,442	(1,848,442)	127,833	18,870,206
15	-	-	-	1,848,442	(1,848,442)	116,649	17,138,413
16	-	-	-	1,848,442	(1,848,442)	105,392	15,395,364
17	-	-	-	1,848,442	(1,848,442)	94,062	13,640,985
18	-	-	-	1,848,442	(1,848,442)	82,659	11,875,202
19	-	-	-	1,848,442	(1,848,442)	71,181	10,097,942
20	-	-	-	1,848,442	(1,848,442)	59,629	8,309,130
21	-	-	-	1,686,681	(1,686,681)	48,528	6,670,976
22	-	-	-	1,509,773	(1,509,773)	38,455	5,199,658
23	-	-	-	1,321,051	(1,321,051)	29,504	3,908,111
24	-	-	-	1,132,330	(1,132,330)	21,723	2,797,504
25	-	-	-	943,608	(943,608)	15,117	1,869,013
26	-	-	-	754,886	(754,886)	9,695	1,123,822
27	-	-	-	566,165	(566,165)	5,465	563,122
28	-	-	-	377,443	(377,443)	2,434	188,112
29	-	-	-	188,722	(188,722)	609	-
			55,827,829	60,455,175		2,345,004	

City of Fort Worth - 2017 Transportation Impact Fee Study  
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Appendix E - Impact Fee Calculation Assumptions  
Service Area X

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	1,467	1,764	\$ 1,339,358	\$ 1,610,985
2	28	1.1950	1.0000	1,467	1,753	2,692,391	3,217,506
3	27	1.1873	1.0000	1,467	1,742	2,880,388	3,419,940
4	26	1.1797	1.0000	1,467	1,730	3,068,084	3,619,269
5	25	1.1720	1.0000	1,467	1,719	3,255,479	3,815,529
6	24	1.1645	1.0000	1,467	1,708	3,442,575	4,008,755
7	23	1.1569	1.0000	1,467	1,697	3,629,371	4,198,979
8	22	1.1495	1.0000	1,467	1,686	3,815,870	4,386,237
9	21	1.1420	1.0000	1,467	1,675	4,002,071	4,570,561
10	20	1.1347	1.0000	1,467	1,664	5,364,513	6,086,972
11	19	1.1273	1.0000	-	-	1,848,442	2,083,833
12	18	1.1201	1.0000	-	-	1,848,442	2,070,376
13	17	1.1128	1.0000	-	-	1,848,442	2,057,005
14	16	1.1056	1.0000	-	-	1,848,442	2,043,721
15	15	1.0985	1.0000	-	-	1,848,442	2,030,523
16	14	1.0914	1.0000	-	-	1,848,442	2,017,409
17	13	1.0844	1.0000	-	-	1,848,442	2,004,381
18	12	1.0774	1.0000	-	-	1,848,442	1,991,437
19	11	1.0704	1.0000	-	-	1,848,442	1,978,576
20	10	1.0635	1.0000	-	-	1,848,442	1,965,798
21	9	1.0566	1.0000	-	-	1,686,681	1,782,184
22	8	1.0498	1.0000	-	-	1,509,773	1,584,956
23	7	1.0430	1.0000	-	-	1,321,051	1,377,880
24	6	1.0363	1.0000	-	-	1,132,330	1,173,413
25	5	1.0296	1.0000	-	-	943,608	971,529
26	4	1.0229	1.0000	-	-	754,886	772,204
27	3	1.0163	1.0000	-	-	566,165	575,413
28	2	1.0098	1.0000	-	-	377,443	381,131
29	1	1.0033	1.0000	-	-	188,722	189,335
						17,140	67,985,837

Total Escalated Expense for Entire Period	\$ 67,985,837
Less Future Value of Initial Fund Balance	2,754,104
Net Escalated Expense for Entire Period	\$ 65,231,733
Total Escalated Service Units	17,140
<b>Impact Fee for Service Area X</b>	<b>\$ 3,806</b>

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Appendix E - Impact Fee Calculation Assumptions**  
**Service Area X**

Impact Fee Project Name <sup>(1)</sup>	Impact Fee	Total	Percent in	Cost in	Impact Fee	Debt Funded <sup>(3)</sup>		Non-Debt	Impact Fee
	Project No. <sup>(1)</sup>	Project Cost <sup>(1)</sup>	Service Area <sup>(1)</sup>	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	Existing	Proposed	Funded <sup>(3)</sup>	Recoverable Cost
Altamesa (3)	X-1	\$ 8,394,000	100%	\$ 8,394,000	\$ 6,052,405	\$ -	\$ 3,026,202	\$ 3,026,202	\$ 6,052,405
Altamesa (4)	X-2	645,000	100%	645,000	465,070	-	232,535	232,535	465,070
Altamesa (5)	X-3	1,940,000	50%	970,000	699,408	-	349,704	349,704	699,408
Altamesa (6)	X-4	699,000	100%	699,000	504,007	-	252,003	252,003	504,007
Joel East	X-5	6,120,000	100%	6,120,000	4,412,761	-	2,206,380	2,206,380	4,412,761
Everman Kennedale (1)	X-6	763,000	100%	763,000	550,153	-	275,077	275,077	550,153
Everman Kennedale (2)	X-7	1,952,000	100%	1,952,000	1,407,469	-	703,734	703,734	1,407,469
Everman Kennedale (3)	X-8	1,740,000	100%	1,740,000	1,254,609	-	627,304	627,304	1,254,609
Enon	X-9	2,689,000	100%	2,689,000	1,938,875	-	969,437	969,437	1,938,875
Everman (1)	X-10, Z-1	5,459,000	50%	2,729,500	1,968,077	-	984,038	984,038	1,968,077
Everman (2)	X-11, Z-2	934,000	50%	467,000	336,725	-	168,363	168,363	336,725
Hemphill (1)	X-12	2,904,000	100%	2,904,000	2,093,898	-	1,046,949	1,046,949	2,093,898
Hemphill (2)	X-13	1,530,000	100%	1,530,000	1,103,190	-	551,595	551,595	1,103,190
Hemphill (3)	X-14	1,153,000	100%	1,153,000	831,358	-	415,679	415,679	831,358
Oak Grove (1)	X-15	2,456,000	100%	2,456,000	1,770,873	-	885,436	885,436	1,770,873
Oak Grove (2)	X-16	714,000	100%	714,000	514,822	-	257,411	257,411	514,822
Oak Grove (3)	X-17	1,613,000	100%	1,613,000	1,163,037	-	581,518	581,518	1,163,037
Oak Grove (4)	X-18	9,937,000	100%	9,937,000	7,164,968	-	3,582,484	3,582,484	7,164,968
Wichita (1)	X-19	1,431,000	100%	1,431,000	1,031,807	-	515,904	515,904	1,031,807
Wichita (2)	X-20	1,320,000	100%	1,320,000	951,772	-	475,886	475,886	951,772
Forest Hill	X-21	5,084,000	100%	5,084,000	3,665,764	-	1,832,882	1,832,882	3,665,764
Anglin	X-22	5,825,000	100%	5,825,000	4,200,054	-	2,100,027	2,100,027	4,200,054
Dick Price	X-23	2,291,000	100%	2,291,000	1,651,901	-	825,951	825,951	1,651,901
Altamesa		400,000	100%	400,000	38,400	-	19,200	19,200	38,400
Altamesa		640,000	100%	640,000	61,440	-	30,720	30,720	61,440
Altamesa		885,000	50%	442,500	42,480	-	21,240	21,240	42,480
Altamesa		1,500,000	100%	1,500,000	144,000	-	72,000	72,000	144,000
Altamesa		1,500,000	75%	1,125,000	108,000	-	54,000	54,000	108,000
Everman		1,000,000	50%	500,000	48,000	-	24,000	24,000	48,000
Everman		295,000	50%	147,500	14,160	-	7,080	7,080	14,160
Everman		800,000	50%	400,000	38,400	-	19,200	19,200	38,400
Everman		345,000	25%	86,250	8,280	-	4,140	4,140	8,280
Everman Kennedale		1,500,000	100%	1,500,000	144,000	-	72,000	72,000	144,000
Felix		360,000	100%	360,000	34,560	-	17,280	17,280	34,560
Joe B Rushing		885,000	100%	885,000	84,960	-	42,480	42,480	84,960
Joel East		1,500,000	100%	1,500,000	144,000	-	72,000	72,000	144,000
Joel East		1,500,000	100%	1,500,000	144,000	-	72,000	72,000	144,000
Lon Stephenson		1,500,000	75%	1,125,000	108,000	-	54,000	54,000	108,000
Oak Grove		200,000	100%	200,000	19,200	-	9,600	9,600	19,200
Seminary		360,000	25%	90,000	8,640	-	4,320	4,320	8,640
Seminary		1,180,000	50%	590,000	56,640	-	28,320	28,320	56,640
Sycamore School		600,000	100%	600,000	57,600	-	28,800	28,800	57,600
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 84,566,775		\$ 77,041,525	\$ 47,061,539	\$ -	\$ 23,518,882	\$ 23,542,657	\$ 47,061,539

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
 Capital Improvement Plan for Impact Fees  
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 Service Area X

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area X) <sup>(1)</sup>	14,669
Annual Growth in Vehicle Miles	<u>10</u> years 1,467

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 161,760	\$ 338,669	\$ 527,390	\$ 716,112	\$ 904,834	\$ 1,093,555	\$ 1,282,277	\$ 1,470,998	\$ 1,659,720	\$ 1,848,442	\$ 10,003,758
2017 Vehicle Miles plus Service Area X Growth	1,827,315	1,828,782	1,830,249	1,831,716	1,833,183	1,834,650	1,836,117	1,837,584	1,839,051	1,840,518	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.09	\$ 0.19	\$ 0.29	\$ 0.39	\$ 0.49	\$ 0.60	\$ 0.70	\$ 0.80	\$ 0.90	\$ 1.00	
Annual Growth in Service Area X Vehicle Miles (Cumulative)	1,467	2,934	4,401	5,868	7,335	8,802	10,269	11,735	13,202	14,669	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 130	\$ 543	\$ 1,268	\$ 2,294	\$ 3,620	\$ 5,246	\$ 7,171	\$ 9,394	\$ 11,915	\$ 14,732	\$ 56,315
Credit Amount	\$ 56,315										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area Y

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	6,665
Existing Fund Balance <sup>(3)</sup>	2,086,680
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 9,327,855
Non-debt Funded New Project Cost <sup>(5)</sup>	62,765,500
New Project Cost Funded Through New Debt <sup>(6)</sup>	61,738,404
Total Recoverable Project Cost <sup>(7)</sup>	\$ 133,831,759

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 6,173,840	3.25%	20
2	6,173,840	4.25%	20
3	6,173,840	5.00%	20
4	6,173,840	5.00%	20
5	6,173,840	5.00%	20
6	6,173,840	5.00%	20
7	6,173,840	5.00%	20
8	6,173,840	5.00%	20
9	6,173,840	5.00%	20
10	6,173,840	5.00%	20
Total	\$ 61,738,404		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 9,337,793
2	12,450,390
3	12,450,390
4	12,450,390
5	12,450,390
6	12,450,390
7	12,450,390
8	12,450,390
9	12,450,390
10	15,562,988
Total	\$ 124,503,904

- (1) Annual return as of 2017
- (2) Derived from the 10-year Growth Projections Report, Table 7
- (3) Balances provided by City Staff as of August 2017
- (4) Existing debt funded project costs from details provided by staff
- (5) Assumes 50% of new project costs funded through sources other than debt
- (6) Assumes 50% of new project costs funded through new debt issues
- (7) Line 15 of the Max Fee Table Report
- (8) Assumes new debt issued in equal annual amounts
- (9) Estimated interest cost provided by City Staff
- (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area Y

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 424,630	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 424,630
2	424,630	464,395	-	-	-	-	-	-	-	-	889,025
3	424,630	464,395	495,405	-	-	-	-	-	-	-	1,384,430
4	424,630	464,395	495,405	495,405	-	-	-	-	-	-	1,879,835
5	424,630	464,395	495,405	495,405	495,405	-	-	-	-	-	2,375,240
6	424,630	464,395	495,405	495,405	495,405	495,405	-	-	-	-	2,870,645
7	424,630	464,395	495,405	495,405	495,405	495,405	495,405	-	-	-	3,366,050
8	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	-	-	3,861,455
9	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	-	4,356,860
10	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
11	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
12	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
13	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
14	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
15	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
16	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
17	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
18	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
19	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
20	424,630	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,852,265
21	-	464,395	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	4,427,635
22	-	-	495,405	495,405	495,405	495,405	495,405	495,405	495,405	495,405	3,963,239
23	-	-	-	495,405	495,405	495,405	495,405	495,405	495,405	495,405	3,467,834
24	-	-	-	-	495,405	495,405	495,405	495,405	495,405	495,405	2,972,430
25	-	-	-	-	-	495,405	495,405	495,405	495,405	495,405	2,477,025
26	-	-	-	-	-	-	495,405	495,405	495,405	495,405	1,981,620
27	-	-	-	-	-	-	-	495,405	495,405	495,405	1,486,215
28	-	-	-	-	-	-	-	-	495,405	495,405	990,810
29	-	-	-	-	-	-	-	-	-	495,405	495,405
	\$ 8,492,597	\$ 9,287,905	\$ 9,908,099	\$ 9,908,099	\$ 9,908,099	\$ 9,908,099	\$ 9,908,099	\$ 9,908,099	\$ 9,908,099	\$ 9,908,099	\$ 97,045,290

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Appendix E - Impact Fee Calculation Assumptions**

**II. Summary of Annual Expenses**

<b>Year</b>	<b>New Annual Debt Service<sup>(1)</sup></b>	<b>Annual Capital Expenditures<sup>(2)</sup></b>	<b>Annual Bond Proceeds<sup>(2)</sup></b>	<b>Existing Annual Debt Service<sup>(3)</sup></b>	<b>Annual Credit<sup>(4)</sup></b>	<b>Total Expense</b>
<b>1</b>	\$ 424,630	\$ 9,337,793	\$ (6,173,840)	\$ 641,191	\$ (3,877)	\$ 4,225,896
<b>2</b>	889,025	12,450,390	(6,173,840)	525,844	(10,255)	7,681,164
<b>3</b>	1,384,430	12,450,390	(6,173,840)	482,188	(20,221)	8,122,947
<b>4</b>	1,879,835	12,450,390	(6,173,840)	466,567	(33,770)	8,589,182
<b>5</b>	2,375,240	12,450,390	(6,173,840)	449,435	(50,635)	9,050,590
<b>6</b>	2,870,645	12,450,390	(6,173,840)	432,374	(70,798)	9,508,771
<b>7</b>	3,366,050	12,450,390	(6,173,840)	417,362	(94,273)	9,965,689
<b>8</b>	3,861,455	12,450,390	(6,173,840)	402,518	(120,995)	10,419,528
<b>9</b>	4,356,860	12,450,390	(6,173,840)	387,862	(150,932)	10,870,340
<b>10</b>	4,852,265	15,562,988	(6,173,840)	369,125	(183,900)	14,426,637
<b>11</b>	4,852,265	-	-	464,584	-	5,316,849
<b>12</b>	4,852,265	-	-	251,543	-	5,103,807
<b>13</b>	4,852,265	-	-	100,353	-	4,952,617
<b>14</b>	4,852,265	-	-	96,578	-	4,948,843
<b>15</b>	4,852,265	-	-	92,734	-	4,944,998
<b>16</b>	4,852,265	-	-	7,726	-	4,859,990
<b>17</b>	4,852,265	-	-	6,766	-	4,859,030
<b>18</b>	4,852,265	-	-	6,548	-	4,858,813
<b>19</b>	4,852,265	-	-	48	-	4,852,313
<b>20</b>	4,852,265	-	-	-	-	4,852,265
<b>21</b>	4,427,635	-	-	-	-	4,427,635
<b>22</b>	3,963,239	-	-	-	-	3,963,239
<b>23</b>	3,467,834	-	-	-	-	3,467,834
<b>24</b>	2,972,430	-	-	-	-	2,972,430
<b>25</b>	2,477,025	-	-	-	-	2,477,025
<b>26</b>	1,981,620	-	-	-	-	1,981,620
<b>27</b>	1,486,215	-	-	-	-	1,486,215
<b>28</b>	990,810	-	-	-	-	990,810
<b>29</b>	495,405	-	-	-	-	495,405
	<b>\$ 97,045,290</b>	<b>\$ 124,503,904</b>	<b>\$ (61,738,404)</b>	<b>\$ 5,601,345</b>	<b>\$ (739,656)</b>	<b>\$ 164,672,479</b>



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2007 GO</u>	<u>2007 CO</u>	<u>2007A GO</u>	<u>2008 CO</u>	<u>2009 GO</u>	<u>2009 CO</u>	<u>2012 GO</u>
2007	-	-	-				
2008	412	48,156	8,107	-			
2009	412	48,156	5,431	495,561	-	-	
2010	412	48,156	5,431	154,676	189	489,766	
2011	412	48,156	5,431	154,676	189	264,336	
2012	412	48,156	5,431	154,676	189	264,336	-
2013	412	48,156	5,431	154,676	189	264,336	48,543
2014	412	48,156	5,431	154,676	189	264,336	48,543
2015	412	48,156	5,431	154,676	189	263,972	48,543
2016	412	48,156	5,431	154,676	189	263,972	48,600
2017	412	48,156	5,431	154,676	189	173,436	48,543
	\$ 4,120	\$ 481,562	\$ 56,984	\$ 1,732,969	\$ 1,511	\$ 2,248,488	\$ 242,772

	<u>2012 CO</u>	<u>2013 GO</u>	<u>2015A GO</u>	<u>2016 GO</u>	<u>TOTAL</u>
2007					-
2008					56,675
2009					549,560
2010					698,630
2011					473,199
2012	-				473,199
2013	37,587	-			559,330
2014	37,671	4,095			563,509
2015	37,629	4,089	-		563,097
2016	37,629	4,175	38,471	-	601,712
2017	37,671	4,274	10,651	145	483,584
	\$ 188,188	\$ 16,634	\$ 49,123	\$ 145	\$ 5,022,496

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	9,327,855
-Less Principal PTD	5,022,496
Outstanding Debt Principal	4,305,359
New Project Costs Debt Principal(5)	61,738,404
<b>Principal Component</b>	<b>\$ 66,043,763</b>

(1) Appendix E - Service Area Y, Page 2

(2) Appendix E - Service Area Y, Page 1

(3) Existing debt funded project costs from details provided by staff

(4) Appendix E - Service Area Y, Page 8

(5) Appendix E - Service Area Y, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

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### Appendix E - Impact Fee Calculation Assumptions

#### Service Area Y

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
Initial							\$ 2,086,680
1	\$ 2,348	6,665	\$ 15,653,403	\$ 4,225,896	\$ 11,427,507	50,703	13,564,889
2	2,348	6,665	15,653,403	7,681,164	7,972,239	114,082	21,651,210
3	2,348	6,665	15,653,403	8,122,947	7,530,456	165,207	29,346,873
4	2,348	6,665	15,653,403	8,589,182	7,064,221	213,713	36,624,807
5	2,348	6,665	15,653,403	9,050,590	6,602,813	259,520	43,487,141
6	2,348	6,665	15,653,403	9,508,771	6,144,632	302,636	49,934,409
7	2,348	6,665	15,653,403	9,965,689	5,687,714	343,059	55,965,183
8	2,348	6,665	15,653,403	10,419,528	5,233,875	380,784	61,579,842
9	2,348	6,665	15,653,403	10,870,340	4,783,063	415,814	66,778,718
10	2,348	6,665	15,653,403	14,426,637	1,226,766	438,049	68,443,533
11	-	-	-	5,316,849	(5,316,849)	427,603	63,554,287
12	-	-	-	5,103,807	(5,103,807)	396,515	58,846,995
13	-	-	-	4,952,617	(4,952,617)	366,409	54,260,788
14	-	-	-	4,948,843	(4,948,843)	336,611	49,648,557
15	-	-	-	4,944,998	(4,944,998)	306,644	45,010,203
16	-	-	-	4,859,990	(4,859,990)	276,771	40,426,984
17	-	-	-	4,859,030	(4,859,030)	246,984	35,814,937
18	-	-	-	4,858,813	(4,858,813)	217,006	31,173,130
19	-	-	-	4,852,313	(4,852,313)	186,855	26,507,672
20	-	-	-	4,852,265	(4,852,265)	156,530	21,811,938
21	-	-	-	4,427,635	(4,427,635)	127,388	17,511,691
22	-	-	-	3,963,239	(3,963,239)	100,945	13,649,397
23	-	-	-	3,467,834	(3,467,834)	77,451	10,259,013
24	-	-	-	2,972,430	(2,972,430)	57,023	7,343,607
25	-	-	-	2,477,025	(2,477,025)	39,683	4,906,265
26	-	-	-	1,981,620	(1,981,620)	25,450	2,950,096
27	-	-	-	1,486,215	(1,486,215)	14,345	1,478,227
28	-	-	-	990,810	(990,810)	6,388	493,805
29	-	-	-	495,405	(495,405)	1,600	-
			156,534,029	164,672,479		6,051,771	

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area Y

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	6,665	8,017	\$ 4,225,896	\$ 5,082,926
2	28	1.1950	1.0000	6,665	7,965	7,681,164	9,179,272
3	27	1.1873	1.0000	6,665	7,914	8,122,947	9,644,529
4	26	1.1797	1.0000	6,665	7,863	8,589,182	10,132,240
5	25	1.1720	1.0000	6,665	7,812	9,050,590	10,607,590
6	24	1.1645	1.0000	6,665	7,762	9,508,771	11,072,622
7	23	1.1569	1.0000	6,665	7,712	9,965,689	11,529,743
8	22	1.1495	1.0000	6,665	7,662	10,419,528	11,976,959
9	21	1.1420	1.0000	6,665	7,612	10,870,340	12,414,461
10	20	1.1347	1.0000	6,665	7,563	14,426,637	16,369,525
11	19	1.1273	1.0000	-	-	5,316,849	5,993,928
12	18	1.1201	1.0000	-	-	5,103,807	5,716,598
13	17	1.1128	1.0000	-	-	4,952,617	5,511,431
14	16	1.1056	1.0000	-	-	4,948,843	5,471,665
15	15	1.0985	1.0000	-	-	4,944,998	5,432,106
16	14	1.0914	1.0000	-	-	4,859,990	5,304,247
17	13	1.0844	1.0000	-	-	4,859,030	5,268,951
18	12	1.0774	1.0000	-	-	4,858,813	5,234,689
19	11	1.0704	1.0000	-	-	4,852,313	5,193,926
20	10	1.0635	1.0000	-	-	4,852,265	5,160,332
21	9	1.0566	1.0000	-	-	4,427,635	4,678,334
22	8	1.0498	1.0000	-	-	3,963,239	4,160,600
23	7	1.0430	1.0000	-	-	3,467,834	3,617,014
24	6	1.0363	1.0000	-	-	2,972,430	3,080,276
25	5	1.0296	1.0000	-	-	2,477,025	2,550,320
26	4	1.0229	1.0000	-	-	1,981,620	2,027,080
27	3	1.0163	1.0000	-	-	1,486,215	1,510,492
28	2	1.0098	1.0000	-	-	990,810	1,000,491
29	1	1.0033	1.0000	-	-	495,405	497,015
					77,882	164,672,479	185,419,361

Total Escalated Expense for Entire Period	\$ 185,419,361
Less Future Value of Initial Fund Balance	2,517,998
Net Escalated Expense for Entire Period	\$ 182,901,363
Total Escalated Service Units	77,882
<b>Impact Fee for Service Area Y</b>	<b>\$ 2,348</b>

City of Fort Worth - 2017 Transportation Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area Y

Impact Fee Project Name <sup>(1)</sup>	Impact Fee Project No. <sup>(1)</sup>	Total Project Cost <sup>(1)</sup>	Percent in Service Area <sup>(1)</sup>	Cost in Service Area <sup>(1)</sup>	Impact Fee Recoverable Cost <sup>(2)</sup>	Debt Funded <sup>(3)</sup>		Non-Debt Funded <sup>(3)</sup>	Impact Fee Recoverable Cost
						Existing	Proposed		
Altamesa (1)	W-2, Y-1	\$ 7,673,507	50%	\$ 3,836,753	\$ 3,551,388	\$ 3,551,388	\$ -	\$ -	\$ 3,551,388
Altamesa (2)	W-3, Y-2	2,285,725	50%	1,142,863	1,057,860	1,057,860	-	-	1,057,860
Altamesa (3)	W-4, Y-3	6,367,378	50%	3,183,689	2,946,897	2,310,800	318,048	318,048	2,946,897
Columbus Trail (1)	Y-4	1,881,000	100%	1,881,000	1,741,097	-	870,549	870,549	1,741,097
Columbus Trail (2)	Y-5	1,963,000	100%	1,963,000	1,816,999	-	908,499	908,499	1,816,999
Sycamore School (1)	Y-6	1,004,000	100%	1,004,000	929,326	-	464,663	464,663	929,326
Sycamore School (2)	Y-7	182,692	100%	182,692	169,104	169,104	-	-	169,104
Risinger (1)	Y-8	1,025,000	100%	1,025,000	948,764	-	474,382	474,382	948,764
Risinger (2)	Y-9	2,984,000	100%	2,984,000	2,762,060	-	1,381,030	1,381,030	2,762,060
Risinger (3)	Y-10	3,949,000	100%	3,949,000	3,655,286	-	1,827,643	1,827,643	3,655,286
McPherson (1)	Y-11	570,000	100%	570,000	527,605	-	263,803	263,803	527,605
McPherson (2)	Y-12	3,386,000	100%	3,386,000	3,134,161	-	1,567,080	1,567,080	3,134,161
McPherson (3)	Y-13	1,357,532	100%	1,357,532	1,256,563	-	628,282	628,282	1,256,563
McPherson (4)	Y-14	5,722,000	100%	5,722,000	5,296,417	-	2,648,208	2,648,208	5,296,417
Stewart Feltz (1)	Y-15	2,816,000	100%	2,816,000	2,606,555	-	1,303,278	1,303,278	2,606,555
Stewart Feltz (2)	Y-16	1,850,000	100%	1,850,000	1,712,403	-	856,202	856,202	1,712,403
Summer Creek (1)	Y-17	794,000	100%	794,000	734,945	-	367,472	367,472	734,945
Summer Creek (2)	Y-18	3,892,000	100%	3,892,000	3,602,526	-	1,801,263	1,801,263	3,602,526
Cleburne Crowley (1)	Y-19	6,267,000	100%	6,267,000	5,800,881	-	2,900,441	2,900,441	5,800,881
Cleburne Crowley (2)	Y-20	1,658,000	100%	1,658,000	1,534,683	-	767,342	767,342	1,534,683
Cleburne Crowley (3)	Y-21	690,000	100%	690,000	638,680	-	319,340	319,340	638,680
Cleburne Crowley (4)	Y-22	965,000	100%	965,000	893,226	-	446,613	446,613	893,226
Bryant Irvin (1)	W-5, Y-23	3,223,000	50%	1,611,500	1,491,642	-	745,821	745,821	1,491,642
Bryant Irvin (2)	Y-24	7,028,000	100%	7,028,000	6,505,281	-	3,252,640	3,252,640	6,505,281
Bryant Irvin (3)	Y-25	14,593,000	100%	14,593,000	13,507,621	-	6,753,810	6,753,810	13,507,621
Brewer (1)	Y-26	4,423,000	100%	4,423,000	4,094,032	-	2,047,016	2,047,016	4,094,032
Brewer (2)	Y-27	3,624,000	100%	3,624,000	3,354,459	-	1,677,229	1,677,229	3,354,459
Brewer (3)	Y-28	859,000	100%	859,000	795,110	-	397,555	397,555	795,110
Brewer (4)	Y-29	14,952,000	100%	14,952,000	13,839,920	-	6,919,960	6,919,960	13,839,920
Brewer (5)	Y-30	5,306,000	100%	5,306,000	4,911,357	-	2,455,679	2,455,679	4,911,357
Granbury	Y-31	1,807,652	100%	1,807,652	1,673,205	1,673,205	-	-	1,673,205
Granbury/Summer Creek	Y-32	465,526	100%	465,526	430,902	430,902	-	-	430,902
Summer Creek (3)	Y-33	290,954	100%	290,954	269,314	134,596	67,359	67,359	269,314
Summer Creek (4)	Y-34	1,357,532	100%	1,357,532	1,256,563	-	628,282	628,282	1,256,563
Summer Creek (5)	Y-35	2,133,265	100%	2,133,265	1,974,600	-	987,300	987,300	1,974,600
Summer Creek (6)	Y-36	1,759,000	100%	1,759,000	1,628,171	-	814,086	814,086	1,628,171
Summer Creek (7)	Y-37	6,197,000	100%	6,197,000	5,736,088	-	2,868,044	2,868,044	5,736,088
Cleburne (1)	Y-38	4,358,000	100%	4,358,000	4,033,866	-	2,016,933	2,016,933	4,033,866
Cleburne (2)	Y-39	2,516,000	100%	2,516,000	2,328,868	-	1,164,434	1,164,434	2,328,868
Hulen	Y-40	1,083,941	100%	1,083,941	1,003,321	-	-	1,003,321	1,003,321
Cleburne (3)	Y-41	486,988	100%	486,988	450,767	-	225,384	225,384	450,767
Cleburne (4)	Y-42	2,005,000	100%	2,005,000	1,855,875	-	927,937	927,937	1,855,875
McCart (1)	Y-43	1,127,000	100%	1,127,000	1,043,177	-	521,589	521,589	1,043,177
McCart (2)	Y-44	4,485,000	100%	4,485,000	4,151,421	-	2,075,710	2,075,710	4,151,421
McCart (3)	Y-45	4,554,000	100%	4,554,000	4,215,289	-	2,107,644	2,107,644	4,215,289
McCart (4)	Y-46	1,141,000	100%	1,141,000	1,056,136	-	528,068	528,068	1,056,136
Industrial	Y-47	1,520,000	100%	1,520,000	1,406,947	-	703,474	703,474	1,406,947
Altamesa		885,000	50%	442,500	96,908	-	48,454	48,454	96,908
Altamesa		300,000	25%	75,000	16,425	-	8,213	8,213	16,425
Altamesa		525,000	50%	262,500	57,488	-	28,744	28,744	57,488
Altamesa		230,000	50%	115,000	25,185	-	12,593	12,593	25,185
Altamesa		295,000	50%	147,500	32,303	-	16,151	16,151	32,303
Columbus Trail		1,000,000	100%	1,000,000	219,000	-	109,500	109,500	219,000
Columbus Trail		400,000	100%	400,000	87,600	-	43,800	43,800	87,600
Sycamore School		345,000	50%	172,500	37,778	-	18,889	18,889	37,778
McCart		1,500,000	100%	1,500,000	328,500	-	164,250	164,250	328,500
McPherson		2,500,000	100%	2,500,000	547,500	-	273,750	273,750	547,500
McPherson		1,000,000	100%	1,000,000	219,000	-	109,500	109,500	219,000
Risinger		2,500,000	100%	2,500,000	547,500	-	273,750	273,750	547,500
Risinger		590,000	100%	590,000	129,210	-	64,605	64,605	129,210
Risinger		460,000	100%	460,000	100,740	-	50,370	50,370	100,740
Risinger		1,000,000	50%	500,000	109,500	-	54,750	54,750	109,500
Stewart Feltz		1,000,000	100%	1,000,000	219,000	-	109,500	109,500	219,000
Stewart Feltz		1,000,000	100%	1,000,000	219,000	-	109,500	109,500	219,000
Cleburne Crowley		1,500,000	50%	750,000	164,250	-	82,125	82,125	164,250
Sycamore School		460,000	100%	460,000	100,740	-	50,370	50,370	100,740
Sycamore School		1,000,000	100%	1,000,000	219,000	-	109,500	109,500	219,000
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 169,092,466		\$ 156,702,662	\$ 133,831,759	\$ 9,327,855	\$ 61,738,404	\$ 62,765,500	\$ 133,831,759

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area Y

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area Y) <sup>(1)</sup>	66,655
Annual Growth in Vehicle Miles	<u>10</u> years 6,665

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 1,065,821	\$ 1,414,869	\$ 1,866,618	\$ 2,346,402	\$ 2,824,674	\$ 3,303,018	\$ 3,783,412	\$ 4,263,973	\$ 4,744,721	\$ 5,221,389	\$ 30,834,899
2017 Vehicle Miles plus Service Area Y Growth	1,832,514	1,839,179	1,845,845	1,852,510	1,859,176	1,865,841	1,872,507	1,879,172	1,885,838	1,892,503	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.58	\$ 0.77	\$ 1.01	\$ 1.27	\$ 1.52	\$ 1.77	\$ 2.02	\$ 2.27	\$ 2.52	\$ 2.76	
Annual Growth in Service Area Y Vehicle Miles (Cumulative)	6,665	13,331	19,996	26,662	33,327	39,993	46,658	53,324	59,989	66,655	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 3,877	\$ 10,255	\$ 20,221	\$ 33,770	\$ 50,635	\$ 70,798	\$ 94,273	\$ 120,995	\$ 150,932	\$ 183,900	\$ 739,656
Credit Amount	\$ 739,656										

(1) Line 8 of the Max Fee Table Report

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees

### Appendix E - Impact Fee Calculation Assumptions

#### Service Area Z

#### I. General Assumptions

Annual Interest Rate on Deposits <sup>(1)</sup>	0.65%
Annual Service Unit Growth <sup>(2)</sup>	3,936
Existing Fund Balance <sup>(3)</sup>	3,192,650
Portion of Projects Funded by Existing Debt <sup>(4)</sup>	\$ 3,753,131
Non-debt Funded New Project Cost <sup>(5)</sup>	58,828,121
New Project Cost Funded Through New Debt <sup>(6)</sup>	58,804,346
Total Recoverable Project Cost <sup>(7)</sup>	\$ 121,385,598

#### II. New Debt Issues Assumptions

<u>Year</u>	<u>Principal<sup>(8)</sup></u>	<u>Interest<sup>(9)</sup></u>	<u>Term</u>
1	\$ 5,880,435	3.25%	20
2	5,880,435	4.25%	20
3	5,880,435	5.00%	20
4	5,880,435	5.00%	20
5	5,880,435	5.00%	20
6	5,880,435	5.00%	20
7	5,880,435	5.00%	20
8	5,880,435	5.00%	20
9	5,880,435	5.00%	20
10	5,880,435	5.00%	20
Total	\$ 58,804,346		

#### III. Capital Expenditure Assumptions

<u>Year</u>	<u>Annual Capital Expenditures<sup>(10)</sup></u>
1	\$ 8,822,435
2	11,763,247
3	11,763,247
4	11,763,247
5	11,763,247
6	11,763,247
7	11,763,247
8	11,763,247
9	11,763,247
10	14,704,058
Total	\$ 117,632,466

- (1) Annual return as of 2017
- (2) Derived from the 10-year Growth Projections Report, Table 7
- (3) Balances provided by City Staff as of August 2017
- (4) Existing debt funded project costs from details provided by staff
- (5) Assumes 50% of new project costs funded through sources other than debt
- (6) Assumes 50% of new project costs funded through new debt issues
- (7) Line 15 of the Max Fee Table Report
- (8) Assumes new debt issued in equal annual amounts
- (9) Estimated interest cost provided by City Staff
- (10) Assumes new debt proceeds expended over a 2-year timeframe with Year 10 bond proceeds spent in one year; Non-debt funded capital expenditures made in equal annual amounts

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area Z

### I. New Debt Service Detail

<u>Year</u>	<u>Series</u> <u>1</u>	<u>Series</u> <u>2</u>	<u>Series</u> <u>3</u>	<u>Series</u> <u>4</u>	<u>Series</u> <u>5</u>	<u>Series</u> <u>6</u>	<u>Series</u> <u>7</u>	<u>Series</u> <u>8</u>	<u>Series</u> <u>9</u>	<u>Series</u> <u>10</u>	<u>Total</u> <u>Annual</u> <u>New Debt</u> <u>Service</u>
1	\$ 404,450	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 404,450
2	404,450	442,325	-	-	-	-	-	-	-	-	846,775
3	404,450	442,325	471,861	-	-	-	-	-	-	-	1,318,636
4	404,450	442,325	471,861	471,861	-	-	-	-	-	-	1,790,498
5	404,450	442,325	471,861	471,861	471,861	-	-	-	-	-	2,262,359
6	404,450	442,325	471,861	471,861	471,861	471,861	-	-	-	-	2,734,220
7	404,450	442,325	471,861	471,861	471,861	471,861	471,861	-	-	-	3,206,081
8	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	-	-	3,677,943
9	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	-	4,149,804
10	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
11	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
12	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
13	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
14	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
15	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
16	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
17	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
18	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
19	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
20	404,450	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,621,665
21	-	442,325	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	4,217,216
22	-	-	471,861	471,861	471,861	471,861	471,861	471,861	471,861	471,861	3,774,890
23	-	-	-	471,861	471,861	471,861	471,861	471,861	471,861	471,861	3,303,029
24	-	-	-	-	471,861	471,861	471,861	471,861	471,861	471,861	2,831,168
25	-	-	-	-	-	471,861	471,861	471,861	471,861	471,861	2,359,306
26	-	-	-	-	-	-	471,861	471,861	471,861	471,861	1,887,445
27	-	-	-	-	-	-	-	471,861	471,861	471,861	1,415,584
28	-	-	-	-	-	-	-	-	471,861	471,861	943,723
29	-	-	-	-	-	-	-	-	-	471,861	471,861
	\$ 8,088,995	\$ 8,846,506	\$ 9,437,226	\$ 9,437,226	\$ 9,437,226	\$ 9,437,226	\$ 9,437,226	\$ 9,437,226	\$ 9,437,226	\$ 9,437,226	\$ 92,433,306

**City of Fort Worth - 2017 Transportation Impact Fee Study**  
**Capital Improvement Plan for Impact Fees**  
**Appendix E - Impact Fee Calculation Assumptions**

**II. Summary of Annual Expenses**

<b>Year</b>	<b>New Annual Debt Service<sup>(1)</sup></b>	<b>Annual Capital Expenditures<sup>(2)</sup></b>	<b>Annual Bond Proceeds<sup>(2)</sup></b>	<b>Existing Annual Debt Service<sup>(3)</sup></b>	<b>Annual Credit<sup>(4)</sup></b>	<b>Total Expense</b>
<b>1</b>	\$ 404,450	\$ 8,822,435	\$ (5,880,435)	\$ 279,678	\$ (1,472)	\$ 3,624,657
<b>2</b>	846,775	11,763,247	(5,880,435)	390,547	(5,311)	7,114,823
<b>3</b>	1,318,636	11,763,247	(5,880,435)	359,288	(10,781)	7,549,956
<b>4</b>	1,790,498	11,763,247	(5,880,435)	347,422	(18,276)	8,002,456
<b>5</b>	2,262,359	11,763,247	(5,880,435)	335,845	(27,704)	8,453,311
<b>6</b>	2,734,220	11,763,247	(5,880,435)	324,269	(39,051)	8,902,250
<b>7</b>	3,206,081	11,763,247	(5,880,435)	312,524	(52,303)	9,349,115
<b>8</b>	3,677,943	11,763,247	(5,880,435)	300,772	(67,448)	9,794,079
<b>9</b>	4,149,804	11,763,247	(5,880,435)	289,006	(84,474)	10,237,148
<b>10</b>	4,621,665	14,704,058	(5,880,435)	277,257	(103,371)	13,619,175
<b>11</b>	4,621,665	-	-	265,500	-	4,887,165
<b>12</b>	4,621,665	-	-	137,698	-	4,759,364
<b>13</b>	4,621,665	-	-	127,194	-	4,748,859
<b>14</b>	4,621,665	-	-	121,838	-	4,743,503
<b>15</b>	4,621,665	-	-	116,375	-	4,738,040
<b>16</b>	4,621,665	-	-	11,972	-	4,633,637
<b>17</b>	4,621,665	-	-	7,044	-	4,628,709
<b>18</b>	4,621,665	-	-	6,816	-	4,628,481
<b>19</b>	4,621,665	-	-	6,620	-	4,628,285
<b>20</b>	4,621,665	-	-	-	-	4,621,665
<b>21</b>	4,217,216	-	-	-	-	4,217,216
<b>22</b>	3,774,890	-	-	-	-	3,774,890
<b>23</b>	3,303,029	-	-	-	-	3,303,029
<b>24</b>	2,831,168	-	-	-	-	2,831,168
<b>25</b>	2,359,306	-	-	-	-	2,359,306
<b>26</b>	1,887,445	-	-	-	-	1,887,445
<b>27</b>	1,415,584	-	-	-	-	1,415,584
<b>28</b>	943,723	-	-	-	-	943,723
<b>29</b>	471,861	-	-	-	-	471,861
	<b>\$ 92,433,306</b>	<b>\$ 117,632,466</b>	<b>\$ (58,804,346)</b>	<b>\$ 4,017,666</b>	<b>\$ (410,191)</b>	<b>\$ 154,868,901</b>



# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions

### III. Summary of Principal Paid to Date for Existing Debt<sup>(3)</sup>

	<u>2009 GO</u>	<u>2012 GO</u>	<u>2016 GO</u>	<u>TOTAL</u>
2007				-
2008				-
2009	-			-
2010	25,904			25,904
2011	25,904			25,904
2012	25,904	-		25,904
2013	25,904	101,603		127,507
2014	25,904	101,603		127,507
2015	25,904	101,603		127,507
2016	25,904	101,722	-	127,626
2017	25,904	101,603	19,833	147,340
	<u>\$ 207,230</u>	<u>\$ 508,135</u>	<u>\$ 19,833</u>	<u>\$ 735,197</u>

### IV. Summary of Debt Financing

Existing Debt Funded Project Costs(5)	3,753,131
-Less Principal PTD	735,197
Outstanding Debt Principal	<u>3,017,934</u>
New Project Costs Debt Principal(5)	58,804,346
<b>Principal Component</b>	<b>\$ 61,822,280</b>

(1) Appendix E - Service Area Z, Page 2

(2) Appendix E - Service Area Z, Page 1

(3) Existing debt funded project costs from details provided by staff

(4) Appendix E - Service Area Z, Page 8

(5) Appendix E - Service Area Z, Page 1

# City of Fort Worth - 2017 Transportation Impact Fee Study

## Capital Improvement Plan for Impact Fees Appendix E - Impact Fee Calculation Assumptions Service Area Z

<u>Year</u>	<u>Impact Fee</u>	<u>Service Units</u>	<u>Impact Fee Revenue</u>	<u>Annual Expenses</u>	<u>Sub-Total</u>	<u>Accumulated Interest</u>	<u>Estimated Fund Balance</u>
<b>Initial</b>							\$ 3,192,650
<b>1</b>	\$ 3,706	3,936	\$ 14,586,594	\$ 3,624,657	\$ 10,961,938	56,379	14,210,966
<b>2</b>	3,706	3,936	14,586,594	7,114,823	7,471,771	116,655	21,799,392
<b>3</b>	3,706	3,936	14,586,594	7,549,956	7,036,639	164,565	29,000,596
<b>4</b>	3,706	3,936	14,586,594	8,002,456	6,584,138	209,902	35,794,637
<b>5</b>	3,706	3,936	14,586,594	8,453,311	6,133,283	252,598	42,180,518
<b>6</b>	3,706	3,936	14,586,594	8,902,250	5,684,344	292,647	48,157,510
<b>7</b>	3,706	3,936	14,586,594	9,349,115	5,237,479	330,046	53,725,035
<b>8</b>	3,706	3,936	14,586,594	9,794,079	4,792,515	364,788	58,882,338
<b>9</b>	3,706	3,936	14,586,594	10,237,148	4,349,446	396,871	63,628,656
<b>10</b>	3,706	3,936	14,586,594	13,619,175	967,420	416,730	65,012,806
<b>11</b>	-	-	-	4,887,165	(4,887,165)	406,700	60,532,340
<b>12</b>	-	-	-	4,759,364	(4,759,364)	377,992	56,150,969
<b>13</b>	-	-	-	4,748,859	(4,748,859)	349,548	51,751,657
<b>14</b>	-	-	-	4,743,503	(4,743,503)	320,969	47,329,123
<b>15</b>	-	-	-	4,738,040	(4,738,040)	292,241	42,883,324
<b>16</b>	-	-	-	4,633,637	(4,633,637)	263,682	38,513,369
<b>17</b>	-	-	-	4,628,709	(4,628,709)	235,294	34,119,953
<b>18</b>	-	-	-	4,628,481	(4,628,481)	206,737	29,698,210
<b>19</b>	-	-	-	4,628,285	(4,628,285)	177,996	25,247,921
<b>20</b>	-	-	-	4,621,665	(4,621,665)	149,091	20,775,347
<b>21</b>	-	-	-	4,217,216	(4,217,216)	121,334	16,679,465
<b>22</b>	-	-	-	3,774,890	(3,774,890)	96,148	13,000,723
<b>23</b>	-	-	-	3,303,029	(3,303,029)	73,770	9,771,463
<b>24</b>	-	-	-	2,831,168	(2,831,168)	54,313	6,994,609
<b>25</b>	-	-	-	2,359,306	(2,359,306)	37,797	4,673,100
<b>26</b>	-	-	-	1,887,445	(1,887,445)	24,241	2,809,896
<b>27</b>	-	-	-	1,415,584	(1,415,584)	13,664	1,407,975
<b>28</b>	-	-	-	943,723	(943,723)	6,085	470,338
<b>29</b>	-	-	-	471,861	(471,861)	1,524	-
			145,865,944	154,868,901		5,810,307	

City of Fort Worth - 2017 Transportation Impact Fee Study  
Capital Improvement Plan for Impact Fees  
Appendix E - Impact Fee Calculation Assumptions  
Service Area Z

<u>Year</u>	<u>Number of Years to End of Period</u>	<u>Future Value Escalation</u>		<u>Annual Service Units</u>		<u>Annual Expense</u>	
		<u>Interest Rate Factor</u>	<u>Recovery Fee Factor</u>	<u>Actual</u>	<u>Escalated</u>	<u>Actual</u>	<u>Escalated</u>
1	29	1.2028	1.0000	3,936	4,734	\$ 3,624,657	\$ 4,359,753
2	28	1.1950	1.0000	3,936	4,703	7,114,823	8,502,474
3	27	1.1873	1.0000	3,936	4,673	7,549,956	8,964,206
4	26	1.1797	1.0000	3,936	4,643	8,002,456	9,440,108
5	25	1.1720	1.0000	3,936	4,613	8,453,311	9,907,561
6	24	1.1645	1.0000	3,936	4,583	8,902,250	10,366,350
7	23	1.1569	1.0000	3,936	4,553	9,349,115	10,816,402
8	22	1.1495	1.0000	3,936	4,524	9,794,079	11,258,024
9	21	1.1420	1.0000	3,936	4,495	10,237,148	11,691,325
10	20	1.1347	1.0000	3,936	4,466	13,619,175	15,453,319
11	19	1.1273	1.0000	-	-	4,887,165	5,509,526
12	18	1.1201	1.0000	-	-	4,759,364	5,330,799
13	17	1.1128	1.0000	-	-	4,748,859	5,284,683
14	16	1.1056	1.0000	-	-	4,743,503	5,244,633
15	15	1.0985	1.0000	-	-	4,738,040	5,204,761
16	14	1.0914	1.0000	-	-	4,633,637	5,057,202
17	13	1.0844	1.0000	-	-	4,628,709	5,019,199
18	12	1.0774	1.0000	-	-	4,628,481	4,986,539
19	11	1.0704	1.0000	-	-	4,628,285	4,954,126
20	10	1.0635	1.0000	-	-	4,621,665	4,915,092
21	9	1.0566	1.0000	-	-	4,217,216	4,456,000
22	8	1.0498	1.0000	-	-	3,774,890	3,962,871
23	7	1.0430	1.0000	-	-	3,303,029	3,445,119
24	6	1.0363	1.0000	-	-	2,831,168	2,933,889
25	5	1.0296	1.0000	-	-	2,359,306	2,429,118
26	4	1.0229	1.0000	-	-	1,887,445	1,930,745
27	3	1.0163	1.0000	-	-	1,415,584	1,438,707
28	2	1.0098	1.0000	-	-	943,723	952,944
29	1	1.0033	1.0000	-	-	471,861	473,395
					45,987	154,868,901	174,288,868

Total Escalated Expense for Entire Period	\$ 174,288,868
Less Future Value of Initial Fund Balance	3,852,573
Net Escalated Expense for Entire Period	\$ 170,436,295
Total Escalated Service Units	45,987
<b>Impact Fee for Service Area Z</b>	<b>\$ 3,706</b>

City of Fort Worth - 2017 Transportation Impact Fee Study

Capital Improvement Plan for Impact Fees

Appendix E - Impact Fee Calculation Assumptions

Service Area Z

Impact Fee Project Name <sup>(1)</sup>	Impact Fee Project No. <sup>(1)</sup>	Total Project Cost <sup>(1)</sup>	Percent in Service Area <sup>(1)</sup>	Cost in Service Area <sup>(1)</sup>	Impact Fee Recoverable Cost <sup>(2)</sup>	Debt Funded <sup>(3)</sup>		Non-Debt Funded <sup>(3)</sup>	Impact Fee Recoverable Cost
						Existing	Proposed		
Everman (1)	X-10, Z-1	\$ 5,459,000	50%	\$ 2,729,500	\$ 1,903,013	\$ -	\$ 951,507	\$ 951,507	\$ 1,903,013
Everman (2)	X-11, Z-2	934,000	50%	467,000	325,593	-	162,797	162,797	325,593
Shelby	Z-3	7,055,000	50%	3,527,500	2,459,381	-	1,229,690	1,229,690	2,459,381
Risinger (4)	Z-4	5,897,000	100%	5,897,000	4,111,401	-	2,055,701	2,055,701	4,111,401
Risinger (5)	Z-5	7,042,000	100%	7,042,000	4,909,698	-	2,454,849	2,454,849	4,909,698
Risinger (6)	Z-6	1,889,000	100%	1,889,000	1,317,015	-	658,507	658,507	1,317,015
Risinger (7)	Z-7	6,019,000	100%	6,019,000	4,196,460	-	2,098,230	2,098,230	4,196,460
Oak Grove Shelby (1)	Z-8	4,182,000	100%	4,182,000	2,915,700	-	1,457,850	1,457,850	2,915,700
Oak Grove Shelby (2)	Z-9	3,156,000	100%	3,156,000	2,200,370	-	1,100,185	1,100,185	2,200,370
Oak Grove Shelby (3)	Z-10	5,654,000	50%	2,827,000	1,970,991	-	985,495	985,495	1,970,991
McPherson (5)	Z-11	10,434,000	100%	10,434,000	7,274,608	-	3,637,304	3,637,304	7,274,608
McPherson (6)	Z-12	458,135	100%	458,135	319,413	319,413	-	-	319,413
McPherson (7)	Z-13	4,061,322	100%	4,061,322	2,831,563	2,831,563	-	-	2,831,563
McPherson (8)	Z-14	4,975,000	100%	4,975,000	3,468,581	467,183	1,500,699	1,500,699	3,468,581
McPherson (9)	Z-15	10,938,000	100%	10,938,000	7,625,998	-	3,812,999	3,812,999	7,625,998
McAlister (1)	Z-16	1,538,879	100%	1,538,879	1,072,910	-	536,455	536,455	1,072,910
McAlister (2)	Z-17	1,372,000	100%	1,372,000	956,561	-	478,281	478,281	956,561
Alsbury	Z-18	912,218	100%	912,218	636,000	134,973	250,514	250,514	636,000
Hemphill (4)	Z-19	7,975,000	100%	7,975,000	5,560,188	-	2,780,094	2,780,094	5,560,188
Hemphill (5)	Z-20	5,469,000	100%	5,469,000	3,812,999	-	1,906,499	1,906,499	3,812,999
Hemphill (6)	Z-21	8,697,000	100%	8,697,000	6,063,568	-	3,031,784	3,031,784	6,063,568
Hemphill (7)	Z-22	459,000	100%	459,000	320,016	-	160,008	160,008	320,016
Hemphill (8)	Z-23	1,758,000	100%	1,758,000	1,225,681	-	612,841	612,841	1,225,681
Oak Grove (5)	Z-24	435,000	100%	435,000	303,283	-	151,641	151,641	303,283
Oak Grove (6)	Z-25	1,947,000	100%	1,947,000	1,357,453	-	678,726	678,726	1,357,453
Oak Grove (7)	Z-26	1,554,000	100%	1,554,000	1,083,452	-	541,726	541,726	1,083,452
Oak Grove (8)	Z-27	4,701,000	100%	4,701,000	3,277,548	-	1,638,774	1,638,774	3,277,548
Oak Grove (9)	Z-28	1,191,000	100%	1,191,000	830,368	-	415,184	415,184	830,368
Oak Grove (10)	Z-29	3,476,000	100%	3,476,000	2,423,475	-	1,211,737	1,211,737	2,423,475
Stone (1)	Z-30	3,696,000	100%	3,696,000	2,576,859	-	1,288,430	1,288,430	2,576,859
Stone (2)	Z-31	8,690,000	100%	8,690,000	6,058,687	-	3,029,344	3,029,344	6,058,687
Stone (3)	Z-32	3,597,000	100%	3,597,000	2,507,836	-	1,253,918	1,253,918	2,507,836
Stone (4)	Z-33	5,045,000	100%	5,045,000	3,517,385	-	1,758,693	1,758,693	3,517,385
Wichita (3)	Z-34	3,908,000	100%	3,908,000	2,724,666	-	1,362,333	1,362,333	2,724,666
Wichita (4)	Z-35	556,000	100%	556,000	387,644	-	193,822	193,822	387,644
Wichita (5)	Z-36	6,695,000	100%	6,695,000	4,667,769	-	2,333,884	2,333,884	4,667,769
Wichita (6)	Z-37	8,211,000	100%	8,211,000	5,724,727	-	2,862,364	2,862,364	5,724,727
Oak Grove S (1)	Z-38	470,000	100%	470,000	327,685	-	163,843	163,843	327,685
Oak Grove S (2)	Z-39	1,177,000	100%	1,177,000	820,607	-	410,303	410,303	820,607
Wildcat Way (1)	Z-40	9,867,000	100%	9,867,000	6,879,294	-	3,439,647	3,439,647	6,879,294
Wildcat Way (2)	Z-41	2,363,000	100%	2,363,000	1,647,489	-	823,744	823,744	1,647,489
Wildcat Way (3)	Z-42	661,000	100%	661,000	460,851	-	230,425	230,425	460,851
Abner Drive	Z-43	1,006,000	100%	1,006,000	701,385	-	350,693	350,693	701,385
Forest Hill	Z-44	3,213,000	50%	1,606,500	1,120,055	-	560,028	560,028	1,120,055
Rendon	Z-45	3,428,000	50%	1,714,000	1,195,005	-	597,502	597,502	1,195,005
Alsbury		1,500,000	75%	1,125,000	231,750	-	115,875	115,875	231,750
Burleson Retta		1,500,000	100%	1,500,000	309,000	-	154,500	154,500	309,000
Everman		1,000,000	50%	500,000	103,000	-	51,500	51,500	103,000
Everman		295,000	50%	147,500	30,385	-	15,193	15,193	30,385
Everman		800,000	50%	400,000	82,400	-	41,200	41,200	82,400
Everman		345,000	25%	86,250	17,768	-	8,884	8,884	17,768
McAlister		1,000,000	100%	1,000,000	206,000	-	103,000	103,000	206,000
McPherson		1,000,000	100%	1,000,000	206,000	-	103,000	103,000	206,000
McPherson		1,500,000	100%	1,500,000	309,000	-	154,500	154,500	309,000
McPherson		1,500,000	100%	1,500,000	309,000	-	154,500	154,500	309,000
FM 1187		900,000	100%	900,000	185,400	-	92,700	92,700	185,400
FM 1187		600,000	75%	450,000	92,700	-	46,350	46,350	92,700
FM 1187		590,000	100%	590,000	121,540	-	60,770	60,770	121,540
Risinger		1,000,000	50%	500,000	103,000	-	51,500	51,500	103,000
Risinger		900,000	100%	900,000	185,400	-	92,700	92,700	185,400
Risinger		1,500,000	100%	1,500,000	309,000	-	154,500	154,500	309,000
Oak Grove Shelby		1,000,000	50%	500,000	103,000	-	51,500	51,500	103,000
Shelby		1,500,000	50%	750,000	154,500	-	77,250	77,250	154,500
Shelby		1,500,000	75%	1,125,000	231,750	-	115,875	115,875	231,750
Transportation Impact Fee Project		23,775	100%	23,775	23,775	-	-	23,775	23,775
Total		\$ 202,175,329		\$ 185,347,579	\$ 121,385,598	#####	\$ 58,804,346	\$ 58,828,121	\$ 121,385,598

(1) 2017 Transportation Impact Fee Study, Appendix A

(2) Line 15 of the Max Fee Table Report

(3) Based on Contributions by Project and Planned Future Debt Financing

City of Fort Worth - 2017 Transportation Impact Fee Study  
 Capital Improvement Plan for Impact Fees  
 Appendix E - Impact Fee Calculation Assumptions  
 Service Area Z

2017 Vehicle Miles (All Service Areas)	1,825,848
Ten Year Growth in Vehicle Miles (Service Area Z) <sup>(1)</sup>	39,357
Annual Growth in Vehicle Miles	<u>10</u> years 3,936

ba

	1	2	3	4	5	6	7	8	9	10	Total
Total Debt Service Eligible for Impact Fees	\$ 684,128	\$ 1,237,322	\$ 1,677,924	\$ 2,137,920	\$ 2,598,204	\$ 3,058,490	\$ 3,518,606	\$ 3,978,715	\$ 4,438,810	\$ 4,898,922	\$ 28,229,041
2017 Vehicle Miles plus Service Area Z Growth	1,829,784	1,833,720	1,837,655	1,841,591	1,845,527	1,849,463	1,853,398	1,857,334	1,861,270	1,865,206	
Total Debt Service Eligible for Impact Fees per Vehicle Mile	\$ 0.37	\$ 0.67	\$ 0.91	\$ 1.16	\$ 1.41	\$ 1.65	\$ 1.90	\$ 2.14	\$ 2.38	\$ 2.63	
Annual Growth in Service Area Z Vehicle Miles (Cumulative)	3,936	7,871	11,807	15,743	19,679	23,614	27,550	31,486	35,422	39,357	
Annual Ad Valorem Revenue Generated by Vehicle Miles for Debt Service Eligible for Impact Fees	\$ 1,472	\$ 5,311	\$ 10,781	\$ 18,276	\$ 27,704	\$ 39,051	\$ 52,303	\$ 67,448	\$ 84,474	\$ 103,371	\$ 410,191
Credit Amount	\$ 410,191										

(1) Line 8 of the Max Fee Table Report