

# 2013 Transportation Impact Fee Study



# City of Fort Worth, Texas

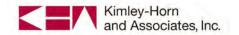
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October 2012

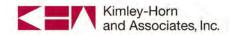






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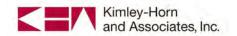


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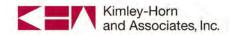
(1) Service Areas H, I, J, K, P, Q, R, and V are no-fee areas and therefore do not have Transportation Improvements Plan exhibits.





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### **EXECUTIVE SUMMARY**

#### Introduction

Impact Fees are a mechanism for funding the public infrastructure necessitated by new development. They originated and evolved in Florida, California and other fast-growing municipalities and counties, primarily in the Southern and Western United States. 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 each new unit of development in terms of new infrastructure needs. In the case of transportation impact fees, the infrastructure need is increased capacity on arterial roadways. The purpose of the 2013 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.

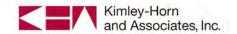
#### Impact Fee Study

The primary purpose of the Transportation Impact Fee Study is to determine the maximum impact fee per unit of new development allowed by 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. The 2013 Transportation Impact Fee Study is the first restudy since the initial Transportation Impact Fee Study dated December 2007. The study can be updated at any time, however, to accommodate significant changes in any of the key variables of the impact fee equation.

#### 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 27 separate Service Areas. A map of the Service Areas can be found on Page 5. However, no impact fees may be collected in eight (8) of these Service Areas because no capacity related transportation improvement projects have been designated.

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 2013 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 2012-2022. 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 August 1, 2012.

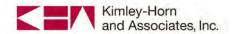
One of the key elements in the determination of the impact fee is the amount of new development anticipated over 10 years. In order to arrive at a reasonable projection of growth, staff compiled a team of subject-matter experts from the Transportation and Public Works and Planning and Development departments to evaluate each of the nineteen 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 2022 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 2022. These projections can be found in the Residential and Employment Projections tables on Pages 7-9. It is worth noting that the percentage of residential and employment expected by 2022 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 Improvements 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) 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, N. Riverside Drive is separated into several projects in the TIP; one project includes the widening of a two-lane concrete facility into a four-lane divided major arterial, while another consists of the construction of a new four-lane divided major arterial. The team utilized a standard methodology for estimating construction costs once the project scope was defined. Referencing dozens of recent 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.B**. 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. During the review process with City staff, the Master Thoroughfare Plan was evaluated; facilities not anticipated to be built out to their ultimate classification are identified in this report under their recommended downgrade classification. These identified downgraded facilities are anticipated to be formally downgraded in an upcoming Master Thoroughfare Plan Amendment.

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.

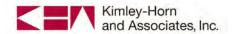
#### Impact Fee Calculation

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 units of development. In accordance with state law, both the cost of the TIP and the number of new 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 64-66. Notice that Service Areas H, I, J, K, P, Q, R, and V 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**

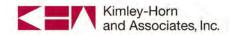
Chapter 395 of the Texas Local Government Code stipulates a specific process for the adoption of Transportation Impact Fees. An Advisory Committee is required to review the Land Use Assumptions and TIP used in calculating the maximum fee, and to provide the Committee's findings for consideration by the 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. In the previous Transportation Impact Fee Study, two separate public hearings were held; however, since Transportation Impact Fees are already in place in the City Fort Worth, the 2013 Transportation Impact Fee Study only requires one public hearing.

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.

#### 2013 Transportation Impact Fee Study Results

Below is the listing of the 2013 Transportation Impact Fee Study's Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile):

SERVICE AREA	Maximum Fee Per Service Unit (per Vehicle-Mile)
A	\$2,158
AA	\$228
В	\$2,419
C	\$1,323
D	\$966
E	\$2,708
F	\$998
G	\$2,091
L	\$1,562
M	\$2,551
N	\$1,283
О	\$1,014
S	\$2,398
T	\$2,322
U	\$2,921
W	\$860
X	\$2,312
Y	\$2,376
${f Z}$	\$2,962





### I. INTRODUCTION

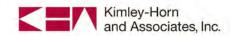
Chapter 395 of the Texas Local Government Code describes the procedure Texas cities must follow in order to create and implement impact fees. Senate Bill 243 (SB 243) amended Chapter 395 in 2001 to define an Impact Fee as "a charge or assessment imposed by a political subdivision against new development 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 Transportation Improvements Plan (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 2013 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 Improvements Plan, and the Land Use Equivalency Table.

This report introduces and references two of the basic inputs to the Transportation Impact Fee: the Land Use Assumptions and the Transportation Improvements Plan (TIP). Information from these two components is used extensively throughout the remainder of the report. This report consists of a detailed discussion of the methodology for the computation of impact fees. This discussion - Methodology for Transportation Impact Fees and Impact Fee Calculation addresses each of the components of the computation and calculations required for the policy. The components include:

- Service Areas
- Service Units
- Cost Per Service Unit
- Cost of the TIP
- Service Unit Calculation
- Maximum Assessable Impact Fee Per Service Unit
- Service Unit Demand Per Unit of Development

The report also includes a section concerning the **Plan for Awarding the Transportation Impact Fee Credit**. In the case of Transportation Impact Fees, 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 TIP. This plan, prepared by J. Stowe & Co., 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 population 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 population in the service area. In addition, these assumptions are useful in assisting the City of Fort Worth 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: the City of Fort Worth Comprehensive Plan, Tarrant Appraisal District, Denton Central Appraisal District, the North Central Texas Council of Governments (NCTCOG), and consultation with City of Fort Worth staff.

The Land Use Assumptions include the following components:

- **Methodology** An overview of the general methodology used to generate the land use assumptions;
- **Impact Fee Service Areas** Explanation of the division of Fort Worth into service areas for transportation facilities;
- **Population and Employment** Data on population and employment within the service area for the base year (2012), the completely developed (Build-Out) scenario, and growth projections by service area over the next ten years (2012 2022); and
- Land Use Assumptions Summary a synopsis of the land use assumptions.

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

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

*Population:* Number of people, based on person per dwelling unit factors.

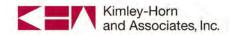
*Employment:* Square feet of building area based on three (3) different classifications. Each

classification has unique trip making characteristics.

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

<u>Service</u>: Land use activities which provide personal and professional services such as government and other professional administrative offices.

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





#### **B.** METHODOLOGY

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

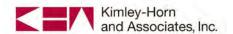
- Character, type, density, and quantity of existing development;
- Current zoning plans;
- Future Land Use Plan (as currently adopted);
- Growth trends;
- Location of vacant land; and
- Physical holding capacity of Fort Worth.

Existing residential and employment data was compiled using data from the Tarrant Appraisal District and Denton Central Appraisal District parcel data and an aerial survey of existing development. For the remaining undeveloped areas, assumptions based upon existing development patterns and the Future Land Use Plan was utilized. Consultation with City staff and development applications helped to determine the approximate portion of build-out to assume for 2022. Following completion of the inventory of existing development, discussions were held with representatives from involved City departments (Planning and Development & Transportation and Public Works) for each service area to determine what undeveloped portions of the City were likely to develop in the next ten years.

#### C. 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 2013 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 (27) 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 August 1, 2012) are excluded from this study. No impact fees may be collected in eight (8) of these Service Areas because no capacity related transportation improvement projects have been designated. These eight (8) service areas were not analyzed in the 2013 Transportation Impact Fee Study.

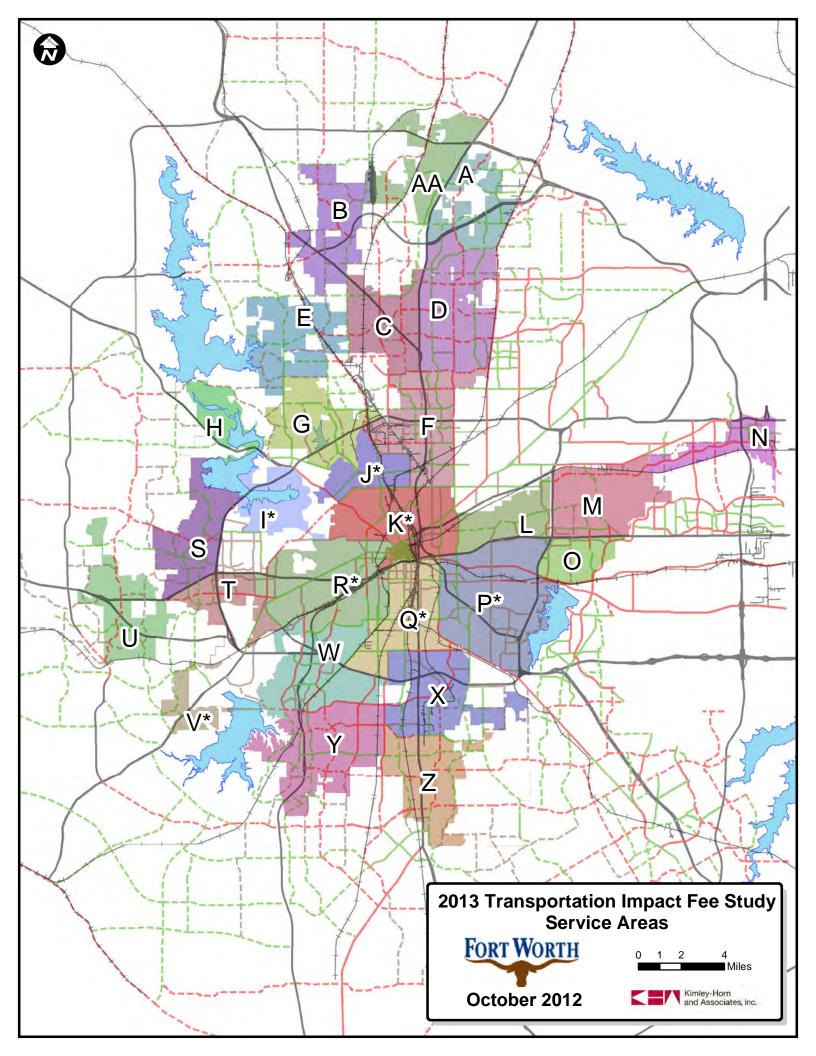
It should be noted that at locations where service area boundaries follow a thoroughfare facility, the proposed boundary is intended to follow the centerline of the roadway unless otherwise noted. In cases where a service area boundary follows the City Limits, only those portions of the facility within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

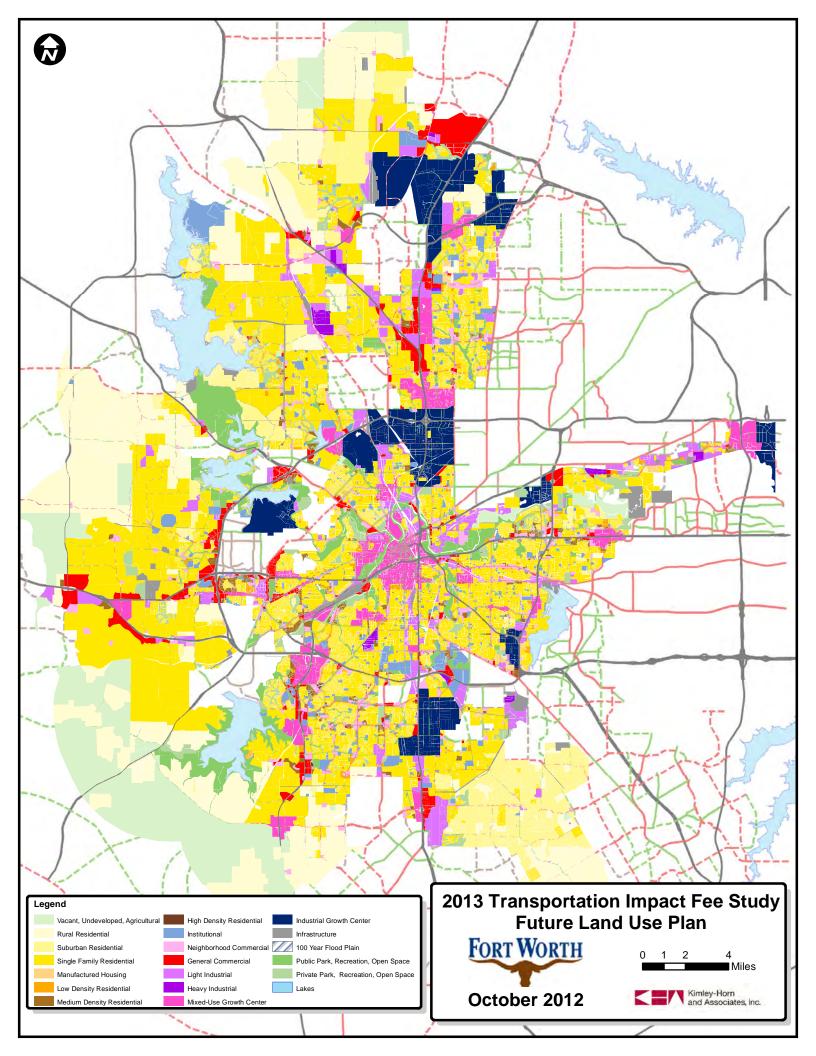




#### D. RESIDENTIAL AND EMPLOYMENT

Population and employment estimates for the base year (2012) were performed based upon a survey of the existing land uses on Tarrant Appraisal District and Denton Central Appraisal District parcel 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 2022. **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 2012, 2022, and Build-Out.





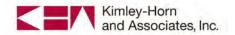




Table 1. Residential and Employment Projections for the City of Fort Worth\*

Service	Year	Dwelling		<b>Employment</b>	(Square Feet)	
Area	1 ear	Units	Basic	Service	Retail	Total
	2012	8,870	4,263,380	1,093,895	45,898	5,403,173
	2012	74%	27%	21%	2%	23%
A	2022	11,282	5,451,694	2,001,981	1,008,199	8,461,874
	2022	94%	35%	38%	50%	37%
	Build-Out	11,990	15,769,589	5,231,180	2,001,292	23,002,061
	2012	1,940	6,711,730	2,528,723	7,979,516	17,219,969
	2012	44%	35%	39%	69%	47%
AA	2022	2,528	8,740,627	3,301,402	8,766,992	20,809,021
	2022	58%	46%	51%	76%	56%
	Build-Out	4,388	19,006,003	6,469,425	11,555,323	37,030,751
	2012	2,468	1,608,351	203,810	75,201	1,887,362
	2012	9%	39%	8%	2%	16%
В	2022	5,744	2,350,801	657,292	1,162,028	4,170,121
	2022	22%	56%	25%	25%	36%
	Build-Out	26,456	4,174,888	2,656,925	4,656,565	11,488,378
	2012	6,170	1,466,165	388,325	66,843	1,921,333
	2012	26%	25%	15%	1%	13%
C	2022	12,434	2,552,589	1,137,143	3,735,639	7,425,371
	2022	52%	44%	44%	59%	50%
	Build-Out	23,990	5,845,613	2,571,740	6,342,863	14,760,216
	2012	50,601	1,753,218	1,228,686	1,958,433	4,940,337
	2012	89%	43%	24%	20%	26%
D	2022	53,289	2,241,707	3,666,832	6,756,809	12,665,348
	2022	93%	55%	72%	70%	67%
	Build-Out	57,117	4,106,457	5,072,683	9,634,003	18,813,143
	2012	1,000	900,526	181,184	130,591	1,212,301
	2012	17%	16%	13%	10%	14%
E	2022	1,466	1,089,199	297,425	318,293	1,704,916
	2022	25%	19%	22%	24%	20%
	Build-Out	5,956	5,776,063	1,368,652	1,302,492	8,447,206
	2012	15,046	11,443,121	3,988,305	2,139,681	17,571,106
	2012	86%	45%	37%	27%	40%
$\mathbf{F}$	2022	16,540	13,174,049	4,911,744	3,048,848	21,134,641
	2022	95%	52%	45%	39%	48%
	Build-Out	17,434	25,163,498	10,902,615	7,902,064	43,968,177

<sup>\*</sup> Note: Service Areas H, I, J, K, P, Q, R, and V are no-fee areas and not included in the analysis.

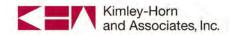




Table 1. Residential and Employment Projections for the City of Fort Worth (cont.)\*

Service	Vaan	Dwelling		Employment (	(Square Feet)	
Area	Year	Units	Basic	Service	Retail	Total
	2012	7,858	879,717	799,670	939,041	2,618,428
	2012	32%	18%	24%	23%	22%
G	2022	10,594	2,584,146	1,301,223	1,300,805	5,186,174
	2022	43%	53%	40%	32%	43%
	Build-Out	24,736	4,896,258	3,268,031	4,006,196	12,170,485
	2012	4,808	2,978,038	1,155,718	1,170,301	5,304,057
	2012	69%	50%	50%	49%	50%
L	2022	4,880	2,988,405	1,177,959	1,222,951	5,389,315
	2022	70%	50%	51%	51%	50%
	Build-Out	6,946	5,987,397	2,309,038	2,377,711	10,674,146
	2012	10,081	1,174,603	966,014	1,711,200	3,851,817
	2012	41%	43%	44%	36%	40%
M	2022	11,723	1,372,340	1,333,221	2,170,805	4,876,366
	2022	48%	50%	60%	46%	50%
	Build-Out	24,433	2,742,730	2,205,898	4,725,383	9,674,011
	2012	3,452	5,396,911	2,352,851	1,679,769	9,429,531
		65%	58%	41%	31%	46%
N		3,578	5,635,199	3,385,034	3,149,063	12,169,296
	2022	67%	61%	59%	57%	60%
	Build-Out	5,342	9,246,113	5,717,759	5,482,341	20,446,213
	2012	5,961	250,854	373,694	569,805	1,194,353
	2012	56%	75%	29%	26%	31%
О	2022	6,609	250,854	579,790	999,621	1,810,265
	2022	62%	75%	45%	45%	47%
	Build-Out	10,707	335,743	1,286,815	2,197,213	3,819,771
	2012	6,140	2,843	199,203	1,525,765	1,727,811
	2012	25%	1%	21%	30%	27%
S	2022	7,790	2,843	302,115	2,152,681	2,457,639
	2022	32%	1%	32%	43%	38%
	Build-Out	24,458	494,170	937,931	5,051,734	6,483,835
	2012	4,864	481,752	600,838	1,548,337	2,630,927
	2012	47%	32%	44%	39%	38%
T	2022	5,263	538,600	689,115	1,990,580	3,218,295
	ZUZZ	51%	36%	50%	50%	47%
	Build-Out	10,414	1,497,801	1,367,505	3,979,581	6,844,887

<sup>\*</sup> Note: Service Areas H, I, J, K, P, Q, R, and V are no-fee areas and not included in the analysis.

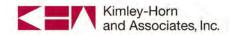
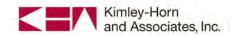




Table 1. Residential and Employment Projections for the City of Fort Worth (cont.)\*

Service	<b>X</b> 7	Dwelling		<b>Employment</b>	(Square Feet)	
Area	Year	Units	Basic	Service	Retail	Total
	2012	635	-	-	-	-
	2012	2%	0%	0%	0%	0%
U	2022	2,483	-	117,006	893,080	1,010,086
	2022	8%	0%	5%	14%	10%
	Build-Out	32,249	1,476,510	2,213,354	6,184,054	9,873,918
	2012	14,506	-	2,628,844	4,999,718	7,628,562
	2012	76%	0%	55%	56%	55%
W	2022	15,070	-	2,842,318	5,524,121	8,366,439
	2022	79%	0%	59%	61%	61%
	Build-Out	19,174	-	4,785,043	9,000,329	13,785,372
	2012	7,964	6,867,530	2,006,409	1,475,625	10,349,564
	2012	53%	45%	43%	41%	44%
X	2022	8,882	7,754,356	2,264,507	1,607,432	11,626,295
	2022	59%	51%	48%	45%	50%
	Build-Out	15,020	15,136,851	4,705,578	3,596,616	23,439,045
	2012	17,226	343,959	446,033	864,252	1,654,244
	2012	40%	40%	16%	12%	15%
Y	2022	20,514	421,772	1,195,623	2,955,113	4,572,508
	2022	48%	49%	42%	41%	42%
	Build-Out	42,888	865,891	2,821,269	7,258,573	10,945,733
	2012	5,090	5,818,420	1,774,228	982,653	8,575,301
	2012	23%	45%	37%	21%	38%
Z	2022	6,620	6,440,306	2,002,711	1,259,395	9,702,412
	2022	30%	50%	41%	27%	43%
	Build-Out	22,082	12,800,820	4,828,183	4,710,734	22,339,737

<sup>\*</sup>Note: Service Areas H, I, J, K, P, Q, R, and V are no-fee areas and not included in the analysis.





### 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) is made up of:

- Recently completed projects with excess capacity available to serve new growth;
- Projects currently under construction; and
- All remaining projects needed to complete the City's Master Thoroughfare Plan with the
  exception of some facilities that were identified that are not anticipated to be built out to
  their ultimate classification.

The TIP includes arterial class roadway facilities as well as major intersection improvements. All of the facilities identified are included in the Master Thoroughfare Plan (as adopted on August 1, 2012). Through evaluation of the Master Thoroughfare Plan with City staff, some facilities were identified that are not anticipated to be built out to their ultimate classification; these facilities were identified as unlikely to be built to their ultimate classifications. Those facilities are identified in this report under their recommended downgrade classification. These identified downgraded facilities are anticipated to be formally downgraded in an upcoming Master Thoroughfare Plan Amendment.

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 Master Thoroughfare Plan classification or recommended downgrade classification. The TIP was developed in conjunction with input from City of Fort Worth staff and represents those projects that will be needed to accommodate the growth projected in the Land Use Assumptions section of this report.

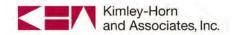
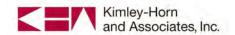




Table 2.A. 10-Year Transportation Improvements Plan – Service Area A

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	A-1	MA4D	Litsey Rd. (1)	IH-35W to Future N. Beach St.	0.35	100%
	A-2	MA4D	Litsey Rd. (2)	Future N. Beach St. to Existing Litsey Rd.	0.19	100%
	A-3	MA4D	Litsey Rd. (3)	425' E. of Elizabethtown C. Rd. to Cleveland Gibbs Rd.	0.53	100%
	A-4	MA4D	Litsey Rd. (4)	Cleveland Gibbs Rd. to 470' E of Cleveland Gibbs Rd.	0.09	100%
	A-5	MA4D	Litsey Rd. (5)	Henrietta Creek Bridge	0.15	100%
	A-6	MA4D	Litsey Rd. (6)	Henrietta Creek Bridge to Seventeen Lakes Blvd.	0.20	100%
	A-7	MA4D	Litsey Rd. (7)	270' E of Seventeen Lakes Blvd. to E. City Limits	0.37	100%
	A-8	MA4D-B	Eagle Pkwy. (1)	Elizabethtown C. Rd. to 950' E. of Future Beach St.	0.50	100%
	A-9	MA4D-B	Eagle Pkwy. (2)	W. City Limits to Henrietta Creek Rd.	0.54	100%
	A-10	MA4D-B (1/2)	Henrietta Creek Rd.	W. City Limits to Independence Pkwy.	0.31	100%
	A-11	MA4D-B (1/2)	Westport Pkwy. (1)	IH-35W NBFR to 640' E. of IH-35W NBFR	0.12	100%
	A-12	MA4D-B	Westport Pkwy. (2)	640' E. of IH-35W NBFR to Old Denton Rd.	0.50	100%
	A-13	MA4D-B	Westport Pkwy. (3)	Old Denton Rd. to Future N. Beach St.	0.50	100%
	A-14	MA4D-B	Westport Pkwy. (4)	Future N. Beach St. to Alta Vista Rd.	0.41	100%
A	A-15	MA4D-B (1/2)	Westport Pkwy. (5)	Alta Vista Rd. to Haslet-Roanoke Rd.	0.22	100%
A	A-16	MA4D-B	Westport Pkwy. (6)	495' NW of SH 170 WBFR to SH 170 WBFR	0.09	100%
	A-17	MA4D-B	Westport Pkwy. (7)	SH 170 EBFR to Existing Westport Pkwy.	0.40	100%
	A-18	MA4D-B (1/2)	Westport Pkwy. (8)	400' E of Park Vista Blvd. to 1370' W of Independence	0.37	100%
	A-19, D-1	MA4D-B	Timberland Blvd. (1)	Beach St. to 425' E of Lillybrook Ln.	0.39	50%
	A-20, D-2	MA4D-B	Timberland Blvd. (2)	425' E of Lillybrook Ln. to Caylor Rd.	0.30	50%
	A-21, D-3	MA4D-B	Timberland Blvd. (3)	Caylor Rd. To Park Vista Blvd.	0.29	50%
	A-22, D-5	MA4D-B	Timberland Blvd. (5)	390' E of Harvest Oaks Dr. to E. City Limits	0.10	50%
	A-23	MA4D-B	Old Denton Rd. (1)	Westport Pkwy. to SH 170 WB	0.52	100%
	A-24	MA4D	N. Beach St. (1)	Litsey Rd. to Eagle Pkwy.	0.63	100%
	A-25	MA4D-B	N. Beach St. (2)	Eagle Pkwy. to S. City Limits	0.35	100%
	A-26	P6D-B	N. Beach St. (3)	Westport Pkwy. to SH 170 WB	0.21	100%
	A-27, D-23	P6D-B	N. Beach St. (4)	SH 170 EBFR to 410' N of Saratoga Downs	0.39	50%
	A-28, D-24	P6D (1/3)	N. Beach St. (5)	410' N of Saratoga Downs Way to Timberland Blvd.	0.70	50%
	A-29	MA4D-B	Independence Pkwy. (1)	N. City Limits to Henrietta Creek Rd.	1.15	100%
	A-30	MA4D-B (1/2)	Park Vista Blvd. (1)	Keller-Haslet Rd. to Timberland Blvd.	0.56	100%





### Table 2.AA. 10-Year Transportation Improvements Plan – Service Area AA

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	AA-1	P6D (2/3)	Intermodal Pkwy.	FM 156 to Haslet County Line Rd	0.70	100%
AA	AA-2	P6D (1/2)	Cleveland-Gibbs Rd.	N. City Limits to IH-35W SBFR	0.24	100%

### Table 2.B. 10-Year Transportation Improvements Plan – Service Area B

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	B-1	MA4D-B	Eagle Pkwy.	W. City Limits to E. City Limits	1.69	50%
	B-2	M4U	Rancho Canyon Way (1)	Sendera Ranch Blvd. to Salida Rd.	1.82	100%
	B-3	M4U-B	Rancho Canyon Way (2)	80' E of Cabo St. to Future John Day Rd.	0.25	100%
	B-4	M4U	Avondale Haslet Rd. (1)	US 287 NBFR to Bates Aston Rd.	0.80	100%
	B-5	M4U	Avondale Haslet Rd. (2)	N. Willow Springs Rd. to Willow Springs Rd.	0.36	100%
	B-6	M4U	Avondale Haslet Rd. (3)	235' W. of Moonlake Way to Moonlake Way	0.04	100%
	B-7	M4U	Avondale Haslet Rd. (4)	Moonlake Way to Sendera Ranch Blvd.	0.40	100%
	B-8	M4U	Avondale Haslet Rd. (5)	Sendera Ranch Blvd. to Future Sendera Ranch Blvd.	0.11	100%
	B-9	M4U	Avondale Haslet Rd. (6)	Future Sendera Ranch Blvd. to E. City Limits	0.52	100%
	B-10	M4U-B	Blue Mound Rd.	Willow Springs Rd. to Future Wagley Robertson Rd.	1.00	100%
	B-11	P6D	Sendera Ranch Blvd. (1)	Future Eagle Pkwy. to Rancho Canyon Way	0.92	100%
В	B-12	P6D	Sendera Ranch Blvd. (2)	Rancho Canyon Way to Suncatcher Way	0.53	50%
В	B-13	P6D (1/3)	Sendera Ranch Blvd. (3)	Suncatcher Way to Snaffle Bit Trl.	0.69	100%
	B-14	P6D (2/3)	Sendera Ranch Blvd. (4)	Snaffle Bit Trl. to Mustang Ridge Dr.	0.23	100%
	B-15	P6D (1/3)	Sendera Ranch Blvd. (5)	Mustang Ridge Dr. to Diamondback Ln.	0.25	100%
	B-16	P6D (2/3)	Sendera Ranch Blvd. (6)	Diamondback Ln. to Future Sendera Ranch Blvd.	0.72	100%
	B-17	P6D	Sendera Ranch Blvd. (7)	Existing Sendera Ranch Blvd. to Future Avondale Haslet	0.21	100%
	B-18	P6D	Sendera Ranch Blvd. (8)	Future Avondale Haslet to Blue Mound Rd.	1.93	100%
	B-19	MA4D-B	John Day Rd. (1)	N. City Limits to Rancho Canyon Way	1.78	100%
	B-20	MA4D	John Day Rd. (2)	Rancho Canyon Way to S. City Limits	0.15	100%
	B-21	M4U-B	Willow Springs Rd. (1)	Avondale Haslet Rd. to 205' S. of Velda Kay Ln.	0.30	50%
	B-22	M4U-B	Willow Springs Rd. (2)	205' S. of Velda Kay Ln. to Blue Mound Rd.	1.25	100%
	B-23	M4U-B	Willow Springs Rd. (3)	Blue Mound Rd. to S. City Limits	0.93	100%
	B-24, C-14	MA4D	Wagley Robertson Rd. (1)	250' N. of US 287 to 125' N of Hawks Landing Rd.	0.41	50%

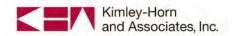




Table 2.C. 10-Year Transportation Improvements Plan – Service Area C

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	C-1	MA4D-B	Bonds Ranch Rd. (1)	Wagley Robertson Rd. to Foothill Dr.	0.12	50%
	C-2	MA4D-B	Bonds Ranch Rd. (2)	Foothill Dr. to FM 156	1.39	100%
	C-3	MA4D-B	Bonds Ranch Rd. (3)	FM 156 to Harmon Rd.	1.00	100%
	C-4	MA4D-B (1/2)	Golden Triangle Blvd. (1)	Misty Redwood Trl. to Golden Heights Rd.	0.34	100%
	C-5	MA4D-B	Golden Triangle Blvd. (2)	Golden Heights Rd. to Existing Golden Triangle Blvd.	0.23	100%
	C-6	MA4D-B	Heritage Trace Pkwy. (3)	Wagley Robertson Rd. to 220' SW of Drovers View Trl.	1.43	100%
	C-7	MA4D-B	Heritage Trace Pkwy. (4)	FM 156 to 130' S of Creosote Dr.	0.93	100%
	C-8	P6D (1/3)	Heritage Trace Pkwy. (5)	Harmon Rd. to IH-35W SBFR	0.80	100%
	C-9	P6D-B	N. Tarrant Pkwy. (1)	Existing Harmon Rd. to Existing N. Tarrant Pkwy.	0.41	100%
	C-10	MA4D	Bailey Boswell Rd. (3)	FM 156 to Horseman Rd.	0.69	100%
	C-11, F-1	MA4D-B (1/2)	Basswood Blvd. (1)	Blue Mound Rd. (FM 156) to 960' E. of FM 156	0.18	50%
	C-12, F-2	MA4D-B	Basswood Blvd. (2)	960' E. of FM 156 to Horseman Rd.	0.72	50%
	C-13, F-3	MA4D-B (1/2)	Basswood Blvd. (3)	Horseman Rd. to Candler Dr.	0.29	50%
C	B-24, C-14	MA4D	Wagley Robertson Rd. (1)	250' N. of US 81 to 525' N of Hawks Landing Rd.	0.41	50%
C	C-15	MA4D	Wagley Robertson Rd. (2)	525' N of Hawks Landing Rd.to 125' N of Hawks	0.08	50%
	C-16	MA4D (1/2)	Wagley Robertson Rd. (3)	125' N of Hawks Landing Rd. to 80' S of Darby Ln.	0.43	50%
	C-17, E-13	MA4D-B	Wagley Robertson Rd. (4)	Hillwood Blvd. to 440' N of Coneflower Trl.	0.63	50%
	C-18	MA4D	Wagley Robertson Rd. (5)	225' S. of Prairie Clover Trl. to Tarrant Pkwy.	0.42	100%
	C-19, E-14	MA4D	Wagley Robertson Rd. (6)	150' N of Mystic River Trl. to 700' S of Mystic River	0.16	50%
	C-20	MA4D-B	Harmon Rd. (1)	Keller Hicks Rd. to Existing Harmon Rd.	0.44	100%
	C-21	MA4D-B	Harmon Rd. (2)	Future Harmon Alignment to 260' N. of Golden Triangle	0.18	50%
	C-22	MA4D-B	Harmon Rd. (3)	260' N. of Golden Triangle Blvd. to Future Golden	0.12	100%
	C-23	MA4D-B (1/2)	Harmon Rd. (4)	Bonds Ranch Rd. to 475' S. of Heritage Trace Pkwy.	0.74	100%
	C-24	MA4D-B	Harmon Rd. (5)	475' S. of Heritage Trace Pkwy. to Presidio Vista Dr.	0.54	100%
	C-25	P6D-B	Harmon Rd. (6)	Presidio Vista Dr. to US 287 SBFR	0.58	100%
	C-26	P6D-B	Harmon Rd. (7)	US 287 SBFR to Future N. Tarrant Pkwy.	0.17	100%
	C-27	MA4D	Harmon Rd. (8)	Future N. Tarrant Pkwy. to Horseman Rd.	0.84	100%
	C-28	M4U (1/2)	Horseman Rd.	Bailey Boswell Rd. to 600' N. of Canchim St.	0.37	100%

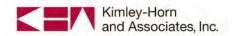




Table 2.D. 10-Year Transportation Improvements Plan – Service Area D

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	A-19, D-1	MA4D-B	Timberland Blvd. (1)	Beach St. to 425' E of Lillybrook Ln.	0.39	50%
	A-20, D-2	MA4D-B	Timberland Blvd. (2)	425' E of Lillybrook Ln. to Caylor Rd.	0.30	50%
	A-21, D-3	MA4D-B	Timberland Blvd. (3)	Caylor Rd. To Park Vista Blvd.	0.29	50%
	D-4	MA4D-B (1/2)	Timberland Blvd. (4)	Park Vista Blvd. to 390' E of Harvest Oaks Dr.	0.52	100%
	A-22, D-5	MA4D-B	Timberland Blvd. (5)	390' E of Harvest Oaks Dr. to E. City Limits	0.10	50%
	D-6	M4U-B	Keller Hicks Rd. (1)	Riverside Dr. to 600' W of Ridgeview Cir.	1.03	100%
	D-7	M4U-B	Keller Hicks Rd. (2)	600' W. of Ridgeview Cir. to Alta Vista Rd.	0.44	100%
	D-8	M4U-B	Keller Hicks Rd. (3)	Alta Vista Rd. to Park Vista Blvd.	0.52	100%
	D-9	M4U-B	Keller Hicks Rd. (4)	Park Vista Blvd. to Katy Rd.	1.00	100%
	D-10	P6D (1/3)	Golden Triangle Blvd. (3)	IH-35W NBFR to Katy Rd.	3.54	100%
	D-11	MA4D-B (1/2)	Kroger Dr.	Park Vista Blvd. to US 377	0.31	100%
	D-12	P6D (1/3)	N. Tarrant Pkwy. (2)	IH-35W NBFR to US 377	3.48	100%
	D-13	M4U-B (1/2)	Summerfields Blvd.	N Riverside Dr. to Cannonwood Dr.	0.18	100%
	D-14	MA4D-B	Old Denton Rd. (2)	SH 170 EB to 190' N of Hidden Valley Dr.	0.18	100%
	D-15	MA4D-B (1/2)	Old Denton Rd. (3)	190' N of Hidden Valley Dr. to 135' S of San Fernando	0.17	100%
	D-16	MA4D-B	Old Denton Rd. (4)	135' S of San Fernando Dr. to 325' N of Sawtimber Trl.	0.16	100%
	D-17	MA4D-B (1/2)	N. Riverside Dr. (1)	Timberland Blvd. to Keller Hicks Rd.	0.20	100%
	D-18	MA4D-B (1/2)	N. Riverside Dr. (2)	Keller Hicks Rd. to 410' N of Golden Triangle Blvd.	0.38	100%
	D-19	MA4D-B	N. Riverside Dr. (3)	410' N of Golden Triangle Blvd. to Golden Triangle Blvd.	0.08	100%
	D-20	MA4D-B	N. Riverside Dr. (4)	Dalton St. to N. Tarrant Pkwy.	0.98	100%
D	D-21	MA4D-B (1/2)	N. Riverside Dr. (5)	N. Tarrant Pkwy. to Summerfields Blvd.	0.71	100%
	D-22	MA4D-B (1/2)	N. Riverside Dr. (6)	Summerfields Blvd. to 710' S of Princess Victoria Ct.	0.29	100%
	A-27, D-23	P6D-B	N. Beach St. (4)	SH 170 EBFR to 410' N of Saratoga Downs Way	0.39	50%
	A-28, D-24	P6D (1/3)	N. Beach St. (5)	410' N of Saratoga Downs to Timberland Blvd.	0.70	50%
	D-25	P6D (1/3)	N. Beach St. (6)	Timberland Blvd. to Keller Hicks Rd.	1.03	100%
	D-26	P6D (1/3)	N. Beach St. (7)	Keller Hicks Rd. to Golden Triangle Blvd.	0.75	100%
	D-27	P6D (1/3)	N. Beach St. (8)	Golden Triangle Blvd. to Vista Meadows Dr.	0.73	100%
	D-28	P6D-B (2/3)	N. Beach St. (9)	Vista Meadows Dr. to Alta Vista Rd.	0.18	100%
	D-29	P6D-B	N. Beach St. (10)	Alta Vista Rd. to Heritage Trace Pkwy.	0.10	100%
	D-30	P6D-B	N. Beach St. (11)	Heritage Trace Pkwy. to Heritage Glen Dr.	0.47	100%
	D-30 D-31	P6D-B (2/3)	N. Beach St. (12)	Heritage Glen Dr. to 155' S of Springview Ln.	0.65	100%
	D-32	P6D (1/3)	N. Beach St. (12)	155' S of Springview Ln. to 380' S of Spring Mist Cv.	0.14	100%
	D-33	MA4D-B	Park Vista Blvd. (2)	Timberland Blvd. to Caylor Rd.	0.14	100%
	D-33 D-34	MA4D-B MA4D-B	Park Vista Blvd. (2)	Keller Hicks Rd. to Golden Triangle Blvd.	0.18	100%
	D-34 D-35	MA4D-B MA4D-B	Park Vista Blvd. (3)	Golden Triangle Blvd. to Ray White Rd./Wyndrook St.	0.51	100%
	D-35 D-36	MA4D-B MA4D-B	Ray White Rd. (1)	Wyndrook St. to 320' S of Pinellas Ave.	0.15	100%
	D-37	MA4D-B	Ray White Rd. (2)	320' S of Pinellas Ave. to 230' N of Wall Price Keller	0.13	50%
	D-37 D-38	MA4D-B MA4D-B	Ray White Rd. (2)	230' N of Wall Price Keller Rd. to Wall Price Keller Rd.	0.04	100%
	D-36 D-39	MA4D-B MA4D-B	Ray White Rd. (4)	Wall Price Keller Rd. to Wall Price Keller Rd.  Wall Price Keller Rd. to 145' N of Archer Dr.	0.04	50%
	D-39 D-40	MA4D-B MA4D-B	Ray White Rd. (4)	145' N of Archer Dr. to 170' N of Mirage Dr.	0.12	100%
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	D-41	MA4D-B (1/2)	Ray White Rd. (6)	Shiver Rd. to N. Tarrant Pkwy.	0.50	100%

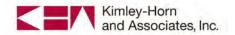




Table 2.E. 10-Year Transportation Improvements Plan – Service Area E

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	E-1	MA4D-B	Heritage Trace Pkwy. (1)	Existing Boat Club Rd. to City Limits	1.39	100%
	E-2	MA4D-B	Heritage Trace Pkwy. (2)	Old Decatur to 250' W. of Wagley Robertson Rd.	1.39	100%
	E-3	M4U	Park Dr. (1)	Boat Club Rd. to Park Dr. (Right-angle turn)	1.01	100%
	E-4	M4U (1/2)	Park Dr. (2)	Park Dr. (Right-angle turn) to 815' E. of Park Dr.	0.15	100%
	E-5	M4U	Park Dr. (3)	815' E. of Park Dr. to Old Decatur Rd.	0.72	100%
	E-6	M4U	Robertson Rd.	680' W. of Lake Country Dr. to Boat Club Rd.	0.87	100%
	E-7	M4U	Lake Country Dr. (1)	Western Lakes Dr. to Eagle Ranch Blvd.	0.57	100%
E	E-8	M4U	Lake Country Dr. (2)	Eagle Ranch Blvd. to Robertson Rd.	0.28	100%
L	E-9, G-1	M4U-B	W J Boaz Rd.	Boat Club Rd. to Old Decatur Rd.	2.05	50%
	E-10	MA4D-B	Boat Club Rd.	Bonds Ranch Rd. to Park Dr.	2.68	100%
	E-11	M4U-B	Old Decatur Rd. (1)	285' S. of Milo Dr. to 200' S. of Millstone Trl.	0.17	100%
	E-12	M4U-B	Willow Springs Rd.	1680' S. of Hicks Rd. to Future Heritage Trace Pkwy.	1.54	100%
	C-17, E-13	MA4D-B	Wagley Robertson Rd. (4)	Hillwood Blvd. to 440' N of Coneflower Trl.	0.63	50%
	C-19, E-14	MA4D	Wagley Robertson Rd. (6)	150' N of Mystic River Trl. to 700' S of Mystic River	0.16	50%
	E-15	MA4D-B	Bailey Boswell Rd. (1)	Boat Club Rd. to 165' E. of Axis Deer Run	0.38	50%
	E-16	MA4D-B	Bailey Boswell Rd. (2)	40 W. OF BOWINAIT KODERIS KU. 10 30 W. OF OM	1.52	100%

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	C-11, F-1	MA4D-B (1/2)	Basswood Blvd. (1)	Blue Mound Rd. (FM 156) to 960' E. of FM 156	0.18	50%
	C-12, F-2	MA4D-B	Basswood Blvd. (2)	960' E. of FM 156 to Horseman Rd.	0.72	50%
	C-13, F-3	MA4D-B (1/2)	Basswood Blvd. (3)	Horseman Rd. to Candler Dr.	0.29	50%
	F-4	P6D	Western Center Blvd. (1)	Blue Mound Rd. (FM 156) to 410' E. of FM 156	0.08	100%
	F-5	P6D (1/3)	Western Center Blvd. (2)	410' E. of FM 156 to Mark IV Pkwy	0.50	100%
	F-6	P6D (1/6)	Western Center Blvd. (3)	Sandshell Blvd. to Riverside Dr.	0.27	100%
	F-7	P6D (1/3)	Western Center Blvd. (4)	Riverside Dr. to 980' E. of Riverside Dr.	0.19	100%
	F-8	P6D (1/3)	Western Center Blvd. (5)	605' W. of Bayberry Dr. to Beach St.	0.62	100%
	F-9	MA4D-B	Cantrell Sansom Rd. (1)	455' W of Nafex Way to 145' W of Maiden Ln.	0.21	100%
	F-10	MA4D-B (1/2)	Cantrell Sansom Rd. (2)	145' W of Maiden Ln. to 190 E. of Deerfoot Trl.	0.21	100%
	F-11	MA4D-B (1/2)	Cantrell Sansom Rd. (3)	195' W. of Lionfish Way to Mark IV Pkwy.	0.13	100%
	F-12	MA4D-B	Cantrell Sansom Rd. (4)	Mark IV Pkwy. to Old Denton Rd.	0.32	100%
F	F-13	MA4D-B	Cantrell Sansom Rd. (5)	Old Denton Rd. to Future IH-35W SBFR	0.15	100%
r	F-14	M4U	Northeast Pkwy.	Superior Pkwy. to Mark IV Pkwy.	0.20	100%
	F-15	MA4D-B (1/2)	Meacham Blvd. (1)	315' E. of Blue Mound Rd. to RR Bridge	0.46	100%
	F-16	P6D-B (1/2)	Meacham Blvd. (2)	Deen Rd. to 590' W of Gemini Pl.	0.51	100%
	F-17	P6D (1/3)	Meacham Blvd. (3)	Little Fossil Creek Bridge to Beach St.	0.89	100%
	F-18	MA4D-B	Long Ave Bridge	700' W. of UP RR to Half Moon Dr.	0.32	100%
	F-19	MA4D-B	Robert W. Downing Dr. (1)	Basswood Blvd. to 1,245' N. of Lou Menk Dr.	0.15	100%
	F-20	MA4D-B (1/2)	Robert W. Downing Dr. (2)	1,245' N. of Lou Menk Dr. to 230' N. of Lou Menk Dr.	0.19	100%
	F-21	M4U	Lone Star Blvd.	Existing Dead End to 800' N. of Meacham Blvd.	0.68	100%
	F-22	MA4D-B (1/2)	Mark IV Pkwy.	Cantrell Sansom Rd. to Loop 820 WBFR	0.52	100%
	F-23	M4U (1/2)	Old Denton Rd.	Staybridge Pl. to Cantrell Sansom Rd.	0.61	100%
	F-24	M4U	Sylvania Ave.	150' of Melody Hills Dr. to Quorum Dr.	0.35	100%
	F-25	MA4D-B	Riverside Dr. Bridge	Stone Creek Pkwy. to Existing Riverside Dr.	0.19	100%
	F-26	P6D (1/3)	N. Beach St. (14)	Fossil Creek to Sandshell Blvd.	0.56	100%

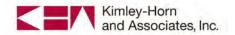




Table 2.G. 10-Year Transportation Improvements Plan – Service Area G

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	E-9, G-1	M4U-B	W J Boaz Rd.	Boat Club Rd. to Old Decatur Rd.	2.05	50%
	G-2	M4U	Cromwell Marine Creek Rd. (1)	Ten Mile Bridge Rd. to N. City Limits	0.74	100%
	G-3	MA4D-B	Cromwell Marine Creek Rd. (2)	Boat Club Rd. to Chesterfield Dr.	1.21	100%
	G-4	MA4D-B	Cromwell Marine Creek Rd. (3)	360' E. of Crystal Lake Dr. to Stonewater Bend Tr.	0.20	100%
	G-5	MA4D-B	Cromwell Marine Creek Rd. (4)	Stonewater Bend Tr. to Marine Creek Pkwy.	0.58	100%
	G-6	MA4D-B	Longhorn Rd.	Marine Creek Pkwy. to Old Decatur Rd.	0.24	100%
	G-7	M4U-B	Ten Mile Bridge Rd. (1)	W. City Limits to Boat Club Rd.	1.09	100%
	G-8	M4U-B	Ten Mile Bridge Rd. (2)	Boat Club Rd. to Bowman Roberts Rd.	0.55	100%
G	G-9	M4U-B	Ten Mile Bridge Rd. (3)	Westgate Dr. to Huffines Blvd.	0.41	100%
G	G-10	M4U	Hodgkins Rd.	Ten Mile Bridge Rd. to 105' S. of Hatch Rd.	1.03	100%
	G-11	M4U-B (1/2)	Huffines Blvd. (1)	330' S. of Cromwell Marine Creek Rd. to 135' S. of	0.51	100%
	G-12	M4U-B (1/2)	Huffines Blvd. (2)	Texas Shiner Dr. to Sea Bass Dr.	0.33	100%
	G-13	MA4D	Marine Creek Pkwy. (1)	Old Decatur to Existing Cromwell Marine Creek Rd.	0.34	100%
	G-14	MA4D-B	Marine Creek Pkwy. (2)	Existing Cromwell Marine Creek Rd. to 420' N of	0.77	100%
	G-15	MA4D	Marine Creek Pkwy. (3)	Angle Ave. to Azle Ave.	0.98	100%
	G-16	M4U (1/2)	Old Decatur Rd. (2)	River Rock Blvd. to IH-820 WBFR	0.30	100%
	G-17	M4U	Old Decatur Rd. (3)	IH-820 EBFR to Angle Ave.	0.80	100%
	G-18	M4U	Delfin St	345' S. of IH-820 EBFR to Future Marine Creek Pkwy	0.70	100%

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	L-1	MA4D-B	E 1st St. (1)	N. Beach St. to 825' W of Oakland Blvd.	1.53	100%
L	L-2	MA4D-B	Randol Mill Rd. (1)	500' NE of Lake Havasu Tr. to 630' W of Woodhaven Blvd.	0.77	100%

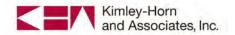




Table 2.M. 10-Year Transportation Improvements Plan – Service Area M

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	M-1	MA4D-B	Precinct Line Rd. (1)	Trinity Railway Express (City Limits) to Trinity Blvd.	0.34	100%
	M-2	MA4D-B	Precinct Line Rd. (2)	Trinity Blvd. to Existing Randol Mill Rd.	1.74	100%
	M-3	MA4D-B	Precinct Line Rd. (3)	Existing Randol Mill Rd. to Future Randol Mill Rd.	0.07	100%
	M-4	M4U	Norwood Dr. (1)	65' S. of SH 10 to 750' N of Trinity Blvd.	0.31	100%
	M-5	M4U (1/2)	Norwood Dr. (2)	750' N of Trinity Blvd. to Trinity Blvd.	0.14	100%
	M-6	M4U	Sandy Ln. (1)	Randol Mill Rd. to Winters St.	0.13	100%
	M-7	M4U-B	Sandy Ln. (2)	Winters St. to John T. White Rd.	0.92	100%
	M-8	M4U-B	Sandy Ln. (3)	John T. White Rd. to IH-30 EB	0.45	100%
	M-9	MA4D-B	Cooks Ln. (1)	Future Randol Mill Rd. to Existing Cooks Ln.	0.59	100%
	M-10	MA4D-B	Cooks Ln. (2)	Future Cooks Ln. Alignment to Lowery Rd.	0.12	100%
	M-11	MA4D-B (1/2)	Cooks Ln. (3)	Lowery Rd. to 545' N. of Meadow View Tr.	0.18	100%
	M-12	MA4D-B (1/2)	Cooks Ln. (4)	545' N. of Meadow View Tr. To 400' N of John T.	0.25	100%
	M-13	M4U-B	Randol Mill Rd. (2)	Stone View Circle to 125' W. of Flyaway Ln.	0.79	100%
М	M-14	M4U-B (1/2)	Randol Mill Rd. (3)	125' W. of Flyaway Ln. to 45' E. of Goldeneye Ln.	0.10	100%
IVI	M-15	M4U-B	Randol Mill Rd. (4)	45' E. of Goldeneye Ln. to 410' E of Existing Cooks Ln.	0.69	100%
	M-16	M4U-B	Randol Mill Rd. (5)	410' E of Existing Cooks Ln. to Future Precinct Line Rd.	0.35	100%
	M-17	M4U-B	Randol Mill Rd. (6)	Future Precinct Line Rd. to Existing Randol Mill Rd.	0.35	100%
	M-18	M4U-B	Randol Mill Rd. (7)	Future Randol Mill Alignment to Mill Water Dr.	0.48	100%
	M-19	M4U-B (1/2)	Randol Mill Rd. (8)	Mill Water Dr. to Racquet Club Dr.	0.21	100%
	M-20	M4U-B	Randol Mill Rd. (9)	John T. White Rd. to 165' SE of Winding Ln.	0.19	100%
	M-21	M4U-B (1/2)	Randol Mill Rd. Bridge	145' SE of Cottonwood Village Dr. to IH-30 EB	0.11	100%
	M-22	M4U	Anderson Blvd. (1)	1270' W of Williams Rd. to 1055' W of Williams Rd.	0.04	100%
	M-23	M4U	Anderson Blvd. (2)	1055' W of Williams Rd. to Sandy Ln.	0.48	100%
	M-24	M4U	House Anderson Rd. (4)	N City Limits to S City Limits	0.70	100%
	M-25	MA4D-B	Trinity Blvd. (1)	IH-820 NB to Precinct Line Rd.	1.67	100%
	M-26	MA4D-B	Trinity Blvd. (2)	Precinct Line Rd. to Norwood Dr.	0.86	100%
	M-27	MA4D-B	Trinity Blvd. (3)	Norwood Dr. to Bell Spur	0.58	100%
	M-28	P6D-B	Trinity Blvd. (4)	Bell Spur to 1110' W of Greenbelt Rd.	0.56	100%

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	N-1	M4U-B	S. Pipeline Rd. (1)	Raider Dr. to House Anderson Rd	0.69	100%
	N-2	M4U-B	S. Pipeline Rd. (2)	House Anderson Rd. to E. City Limits	0.33	100%
	N-3	M4U-B	S. Pipeline Rd. (3)	W. City Limits to FM 157	0.32	100%
	N-4	M4U-B	S. Pipeline Rd. (4)	FM 157 to Euless South Main St.	1.01	100%
	N-5	M4U-B	S. Pipeline Rd. (5)	Euless South Main St. to Summerbrook Dr.	0.46	100%
	N-6	M4U-B (1/2)	S. Pipeline Rd. (6)	Summerbrook Dr. to Boulder Park Dr.	0.14	100%
	N-7	M4U-B	S. Pipeline Rd. (7)	Boulder Park Dr. to American Blvd.	0.08	100%
N	N-8	M4U (1/2)	House Anderson Rd. (1)	S. Pipeline to Trinity Blvd.	0.27	100%
	N-9	M4U	House Anderson Rd. (2)	Trinity Blvd. to 420' N of Trinity Railway Express	0.43	100%
	N-10	M4U	House Anderson Rd. (3)	420' N of Trinity Railway Express to 100' S of TRE	0.10	100%
	N-11	M4U-B	Euless South Main St	S. Pipeline Rd. to Trinity Blvd.	0.19	100%
	N-12	MA4D-B	FAA Blvd. (1)	SH 360 NBFR to Existing FAA Blvd. Dead End	0.33	100%
	N-13	MA4D-B (1/2)	FAA Blvd. (2)	Existing FAA Blvd. Dead End to 620' W of Amon	0.22	100%
	N-14	MA4D-B	Centreport Dr.	FAA Blvd. to Sovereign Rd.	0.31	100%
	N-15	P6D (1/3)	Trinity Blvd. (5)	595' N of Trinity Railway Express to E. City Limits	0.88	100%

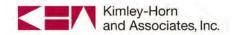




Table 2.O. 10-Year Transportation Improvements Plan – Service Area O

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	O-1	M4U-B (1/2)	Sandy Ln. (4)	IH-30 EB to Ederville Rd.	0.16	100%
	O-2	M4U-B	Randol Mill Rd. (10)	IH-30 EB to 120' NW of Mill Valley Cir.	0.08	100%
0	O-3	MA4D-B	Cooks Ln. (5)	Brentwood Stair Rd. to Whitney Ln.	0.75	100%
	O-4	MA4D-B (1/2)	Cooks Ln. (6)	Whitney Ln. to S Maegen Cir.	0.26	100%
	O-5	MA4D-B	Cooks Ln. (7)	S Maegen Cir. To Dottie Lynn Pkwy.	0.27	100%

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	S-1	MA4D-B	Silver Creek Rd. (1)	W. City Limits to Existing Silver Creek	0.52	100%
	S-2	MA4D-B	Silver Creek Rd. (2)	570' N of Heron Dr. to Brewer HS Entrance	1.72	100%
	S-3	MA4D-B	Silver Creek Rd. (3)	Brewer HS Entrance to Loop 820 W SBFR	0.31	100%
	S-4	MA4D-B	Academy Blvd. (1)	Silver Creek Rd. to 130' N. of Sparrow Hawk Ln.	0.57	100%
	S-5	MA4D-B	Academy Blvd. (2)	75' S. of Caravelle Ct. to Future Amber Ridge Dr.	0.36	100%
	S-6	P6D-B	White Settlement Rd. (1)	W. City Limits to Silver Ridge Blvd.	1.14	50%
	S-7	P6D-B	White Settlement Rd. (2)	Silver Ridge Blvd. to 430' W. of Yuchi Trl	0.17	50%
	S-8	P6D-B	White Settlement Rd. (3)	430' W. of Yuchi Trl to 300' W. of Chapel Creek Blvd.	0.69	100%
	S-9	P6D (1/3)	White Settlement Rd. (4)	300' W. of Chapel Creek to Academy Blvd.	0.56	100%
	S-10	P6D (1/3)	White Settlement Rd. (5)	Academy Blvd. to Clifford St.	0.50	100%
	S-11	M4U	Silver Ridge Blvd.	135' S. of Broken Arrow Tr. to 120' N of Fandor St.	0.51	100%
	S-12	MA4D-B	Westpoint Blvd. (1)	W. City Limits to Basset Locke Dr.	0.65	100%
G	S-13	MA4D-B (1/2)	Westpoint Blvd. (2)	Basset Locke Dr. to American Flyer Blvd.	0.30	100%
S	S-14	MA4D-B	Westpoint Blvd. (3)	Academy Blvd. to Existing Alemeda St.	0.41	100%
	S-15	MA4D	Westpoint Blvd. (4)	Existing Alemeda St. to Loop 820 W SBFR	0.28	100%
	S-16	M4U-B	Alemeda St. (1)	Academy Blvd. to 525' N of Westpoint Blvd.	0.33	100%
	S-17	M4U	Alemeda St. (2)	525' N of Westpoint Blvd. to Future Academy Blvd.	0.62	100%
	S-18	M4U-B	Alemeda St. (3)	IH-30 WBFR to IH-30	0.12	100%
	S-19	M4U	N-S Minor Arterial	Westpoint Blvd. to Old Weatherford Rd.	0.92	100%
	S-20	M4U	Old Weatherford Rd. (1)	645' E of County Rd 1029 to Chapel Creek Blvd.	1.17	100%
	S-21	M4U (1/2)	Amber Ridge Dr. (1)	Chapel Creek Blvd. to Wind Star Way	0.26	100%
	S-22	M4U	Amber Ridge Dr. (2)	Wind Star Way to Future Academy Blvd	0.24	100%
	S-23	M4U-B	Chapin Rd. (1)	W. City Limits to 1,800' E. of W. City Limits	0.34	100%
	S-24	M4U-B	Chapin Rd. (2)	1,800' E. of W. City Limits to 470' W of Wakecrest Dr.	0.30	100%
	S-25	MA4D	Academy Blvd. (3)	Future Amber Ridge to IH-30 WBFR	0.51	100%
	S-26	MA4D	Chapel Creek Blvd	Chapin Rd. to IH-30	0.17	100%

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	T-1	MA4D	Chapin Rd. (3)	Camp Bowie West Blvd. to Longvue Ave.	0.61	100%
	T-2	M4U-B	Alemeda St. (4)	IH-30 EB to IH-30 EBFR	0.07	100%
Tr.	T-3	M4U-B	Alemeda St. (5)	Camp Bowie West Blvd. to Chapin Rd.	0.44	100%
1	T-4	M4U-B	Chapin Rd. (4)	Longvue Ave. to Chapin Curve	0.51	100%
	T-5	M4U-B	Chapin Rd. (5)	Chapin Curve to Alemeda St.	0.18	100%
	T-6	M4U-B	Chapin Rd. (6)	Alemeda St. to IH-820 NBFR	0.30	100%

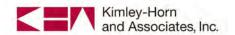




Table 2.U. 10-Year Transportation Improvements Plan – Service Area U

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	U-1	M4U-B	Old Weatherford Rd. (1)	W. City Limits to 1800' W of Future Walsh Ranch	0.38	100%
	U-2	M4U-B	Old Weatherford Rd. (2)	1800' W of Future Walsh Ranch Pkwy. to Future Walsh	0.34	100%
	U-3	P6D-B	Walsh Ranch Pkwy. (1)	North City Limits to Future Old Weatherford Rd.	0.55	100%
	U-4	P6D-B	Walsh Ranch Pkwy. (2)	Future Old Weatherford to Future Walsh Ranch Minor	1.27	100%
	U-5	P6D	Walsh Ranch Pkwy. (3)	Future Walsh Ranch Minor #4 to IH-30 WBFR	0.22	100%
	U-6	P6D-B	Walsh Ranch Pkwy. (4)	IH-30 WBFR to Walsh Ranch Major #1	1.26	100%
	U-7	P6D	Walsh Ranch Pkwy. (5)	Walsh Ranch Major #1 to SW City Limits	2.00	100%
	U-8	M4U-B	Walsh Ranch Minor #4	Future Walsh Ranch Pkwy. to Walsh Ranch Minor #1	1.15	100%
	U-9	M4U	Walsh Ranch Minor #1 (1)	W City Limits to Walsh Ranch Major #1	1.72	100%
U	U-10	M4U	Walsh Ranch Minor #1 (2)	Walsh Ranch Major #1 to City Limits	1.33	100%
	U-11	M4U	Walsh Ranch Minor #1 (3)	IH-30 EBFR to Walsh Ranch Minor #4	0.27	100%
	U-12	M4U-B	Walsh Ranch Minor #1 (4)	Walsh Ranch Minor #4 to N City Limits	0.86	100%
	U-13	MA4D-B	Walsh Ranch Major #1 (1)	W City Limits to Future Walsh Ranch Pkwy.	0.72	100%
	U-14	MA4D-B	Walsh Ranch Major #1 (2)	Future Walsh Ranch Pkwy. to Walsh Ranch Minor #1	1.58	100%
	U-15	MA4D-B	Walsh Ranch Major #1 (3)	Walsh Ranch Minor #1 to RR tracks	0.70	100%
	U-16	M4U	Walsh Ranch Minor #3	W City Limits to IH-30/20 Intersection	1.09	100%
	U-17	M4U-B	Walsh Ranch Minor #2 (1)	Old Weatherford Rd. to IH-20 WBFR	1.24	100%
	U-18	M4U-B	Walsh Ranch Minor #2 (2)	IH-20 WBFR to S City Limits	0.66	100%
	U-19	MA4D-B	Westpoint Blvd. (5)	W. City Limits to E. City Limits	0.52	100%

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

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	W-1	M4U-B	Dutch Branch Rd.	Oakmont Trail to 45' E of RR	0.20	100%
	W-2	M4U	Harris Pwky.	Dutch Branch Rd. to Dirks Rd.	0.49	100%
w	W-3	P6D (1/3)	Granbury Rd. (1)	Dan Danciger Rd. to Hulen St.	0.61	100%
vv	W-4	M4U	Lakeside Dr.	Clear Fork Trinity River to Bryant Irvin Rd.	1.38	100%
	W-5, Y-1	P6D	Dirks Rd. (1)	Bryant Irvin Rd. to Harris Pkwy.	0.52	50%
	W-6, Y-2	P6D	Dirks Rd. (2)	Harris Pkwy. to Granbury Rd.	0.58	50%

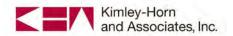




Table 2.X. 10-Year Transportation Improvements Plan – Service Area X

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	X-1	P6D (1/3)	Seminary Dr. (1)	Carter Park Dr. to Campus Dr.	0.62	100%
	X-2	P6D (1/3)	Seminary Dr. (2)	Campus Dr. to Old Mansfield Rd.	0.48	100%
	X-3	M4U-B	Oak Grove Rd. (1)	Oak Grove Rd. to Oak Grove Rd / Campus	0.32	100%
	X-4	MA4D	Altamesa Blvd. (1)	Oak Grove Rd./Campus Dr. to Wichita St.	1.31	100%
	X-5	MA4D	Altamesa Blvd. (2)	Lana Circle to Forest Hill Dr.	0.58	100%
	X-6	M4U	Joel East Rd.	Oak Grove Rd. to Wichita St.	1.10	100%
	Z-1, X-7	MA4D	Everman Pkwy. (1)	Butterwick St. to Cameron Hill	0.56	50%
	Z-2, X-8	MA4D (1/2)	Everman Pkwy. (2)	Cameron Hill to 320' E. of Sheridan Rd.	0.29	50%
	X-9	MA4D-B (1/2)	Hemphill St. (1)	Sunderland Ln. to 130' S of Kielder Cir.	0.39	100%
v	X-10	MA4D-B	Hemphill St. (2)	130' S of Kielder Cir. to Sycamore School Rd.	0.40	100%
X	X-11	MA4D-B (1/2)	Hemphill St. (3)	360' S of Sycamore School Rd. to Rosedale Springs Ln.	0.41	100%
	X-12	MA4D-B	Hemphill St. (4)	Rosedale Springs Ln. to Everman Pkwy.	0.15	100%
	X-13	MA4D-B (1/2)	Oak Grove Rd. (2)	Altamesa Blvd. to RR tracks	0.19	100%
	X-14	MA4D-B	Oak Grove Rd. (3)	RR tracks to Everman Pkwy.	1.58	100%
	X-15	MA4D	Wichita St. (1)	340' N of Altamesa Blvd. to Joel East Rd.	0.20	100%
	X-16	MA4D	Wichita St. (2)	Joel East Rd. to 130' N of Buie Dr.	0.18	100%
	X-17	MA4D-B	Forest Hill Dr. (1)	Lon Stevenson Rd. to S City Limits	0.72	100%
	X-18	M4U	Anglin Dr.	Lon Stevenson Rd. to Enon Rd.	1.00	100%
	X-19	M4U	Dick Price Rd.	N City Limits to S City Limits	0.48	100%
	X-20	M4U	Enon Rd.	W. City Limits to Anglin Dr.	0.50	100%

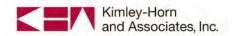




Table 2.Y. 10-Year Transportation Improvements Plan – Service Area Y

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area
	W-5, Y-1	P6D	Dirks Rd. (1)	Bryant Irvin Rd. to Harris Pkwy.	0.52	50%
	W-6, Y-2	P6D	Dirks Rd. (2)	Harris Pkwy. to South Orient RR	0.35	50%
	Y-3	MA4D-B	Columbus Trl. (1)	Future Bryant Irvin to South Orient RR	0.17	100%
	Y-4	MA4D-B	Columbus Trl. (2)	South Orient RR to future Brewer Blvd.	0.16	100%
	Y-5	MA4D-B	Sycamore School Rd. (1)	Future Brewer Blvd. to future SH 121	0.19	100%
	Y-6	P6D (1/3)	Sycamore School Rd. (2)	Future SH 121 to Summer Creek Dr.	0.33	100%
	Y-7	MA4D	Sycamore School Rd. (3)	Summer Creek Dr. to Creek Meadow Dr.	0.12	100%
	Y-8	MA4D-B (1/2)	Risinger Rd. (1)	760' E of McCart Ave. to Poynter St.	0.28	100%
	Y-9	MA4D-B	Risinger Rd. (2)	Poynter St. to existing Risinger Rd. Dead End	0.39	100%
	Y-10	MA4D-B	Risinger Rd. (3)	Existing Risinger Rd. Dead End to FM 731	0.45	100%
	Y-11	MA4D	McPherson Blvd. (1)	FM 1902 to future SH 121	1.08	100%
	Y-12	MA4D-B (1/2)	McPherson Blvd. (2)	Summer Creek Dr. to Willow Branch Way	0.43	100%
	Y-13	MA4D-B	McPherson Blvd. (3)	Cleburne Rd. to E City Limits	0.54	100%
	Y-14	M4U	Stewart Feltz Rd. (1)	Future Brewer Blvd. to Stewart Feltz Rd. SB Bend	0.40	100%
	Y-15	M4U	Stewart Feltz Rd. (2)	Stewart Feltz Rd. SB Bend to Sunflower Ridge Rd.	0.27	100%
	Y-16	M4U (1/2)	Sunflower Ridge Rd.	Existing Sunflower Ridge Rd. Dead End to future	0.27	100%
	Y-17	MA4D-B	Cleburne Crowley Rd. (1)	W City Limits to Stewart Feltz Rd. EB Curve	0.92	100%
	Y-18	MA4D-B	Cleburne Crowley Rd. (2)	Stewart Feltz Rd. EB Curve to 460' W. of Rancho Viejo	0.50	100%
	Y-19	M4U	Cleburne Rd.	Cleburne Crowley Rd. to Summer Creek Dr.	0.40	100%
	Y-20	MA4D-B	Bryant Irvin (1)	Dirks Rd. to 2,755' S. of Dirks Rd.	0.52	50%
	Y-21	MA4D-B	Bryant Irvin (2)	2,755' S. of Dirks Rd. to future Columbus Trl.	0.76	100%
Y	Y-22	MA4D	Bryant Irvin (3)	Future Columbus Trl. to S City Limits	1.83	100%
_	Y-23	MA4D-B	Brewer Blvd. (1)	Columbus Trl. to 155' N. of Bindweed St.	0.52	100%
	Y-24	M4U-B	Brewer Blvd. (2)	125' S. of Risinger Rd. to McPherson Blvd.	0.61	100%
	Y-25	M4U	Brewer Blvd. (3)	McPherson Blvd. to SW City Limits	1.55	100%
	Y-26	MA4D	Granbury Rd. (2)	350' S. of Alta Mesa Blvd. to 630' N. of Appalachian	0.23	100%
	Y-27	MA4D	Granbury/Summer Creek Dr.	Summer Meadows to Columbus Trail	0.54	100%
	Y-28	MA4D-B (1/2)	Summer Creek Dr. (1)	Summer Park to Risinger Rd.	0.40	100%
	Y-29	MA4D-B	Summer Creek Dr. (2)	Risinger Rd. to McPherson Blvd.	0.66	100%
	Y-30	MA4D-B (1/2)	Summer Creek Dr. (3)	McPherson Blvd. to Sunflower Ridge Rd.	0.45	100%
	Y-31	MA4D-B	Summer Creek Dr. (4)	Sunflower Ridge Rd. to 640' N. of Cleburne Crowley	0.82	100%
	Y-32	MA4D-B	Summer Creek Dr. (5)	Cleburne Crowley Rd. to future Cleburne Rd. Alignment	0.07	100%
	Y-33	MA4D	Summer Creek Dr. (6)	Existing Cleburne Rd. to SW City Limits	1.40	100%
	Y-34	M4U-B	Cleburne Rd. (1)	Future Summer Creek Dr. to existing Cleburne Rd.	0.15	100%
	Y-35	M4U-B	Cleburne Rd. (2)	Existing Cleburne Rd. to future Cleburne Rd. Alignment	0.26	100%
	Y-36	M4U-B	Cleburne Rd. (3)	Existing Cleburne Rd. to S City Limits	0.35	100%
	Y-37	MA4D-B (1/2)	Hulen St. (1)	McPherson Blvd. to Carriage Crossing Dr.	0.19	100%
	Y-38	MA4D-B	Hulen St. (2)	Carriage Crossing Dr. to S City Limits	0.36	100%
	Y-39	MA4D-B	Hulen St. (3)	325' N. of Rancho Verde Pkwy. To S. City Limits	0.50	100%
	Y-40	MA4D (1/2)	McCart Ave. (1)	585' S. of Risinger Rd. to 135' S. of Cayman Dr.	0.31	100%
	Y-41	MA4D	McCart Ave. (2)	135' S of Cayman Dr. to future McPherson Blvd.	0.57	100%
	Y-42	M4U	McCart Ave. (3)	McPherson Blyd, to 145' N of Twinleaf Dr.	0.60	100%
	Y-43	M4U (1/2)	McCart Ave. (4)	300' S of Twinleaf Dr. to S City Limits	0.44	100%

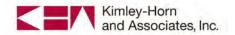
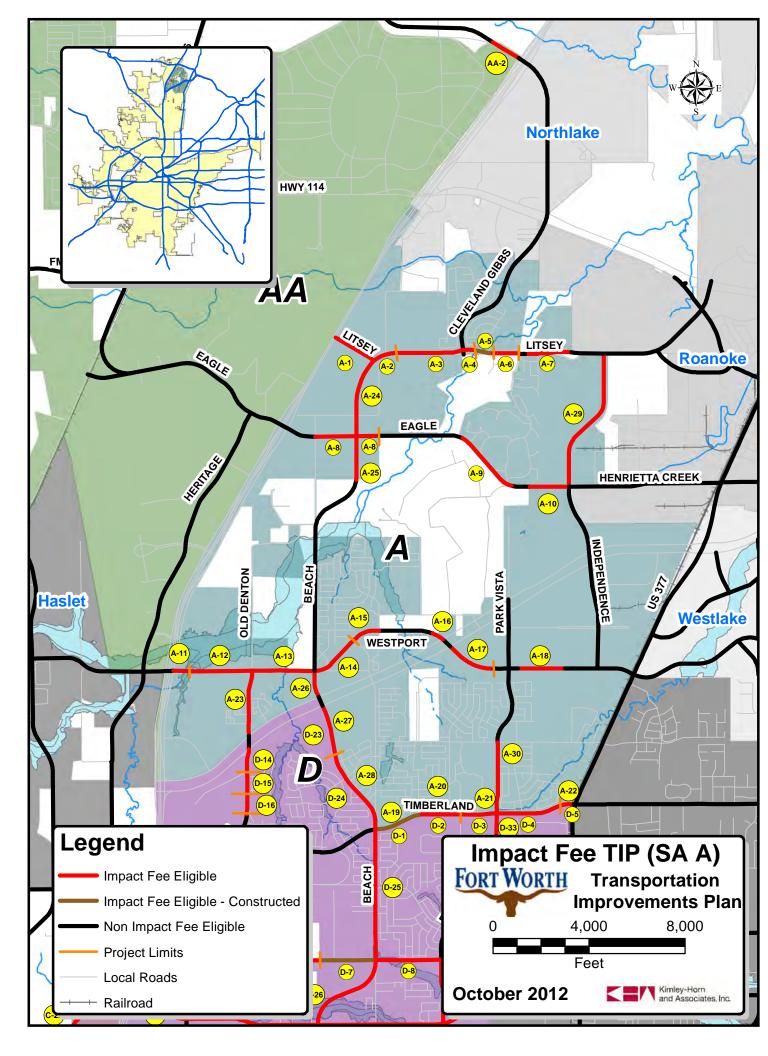
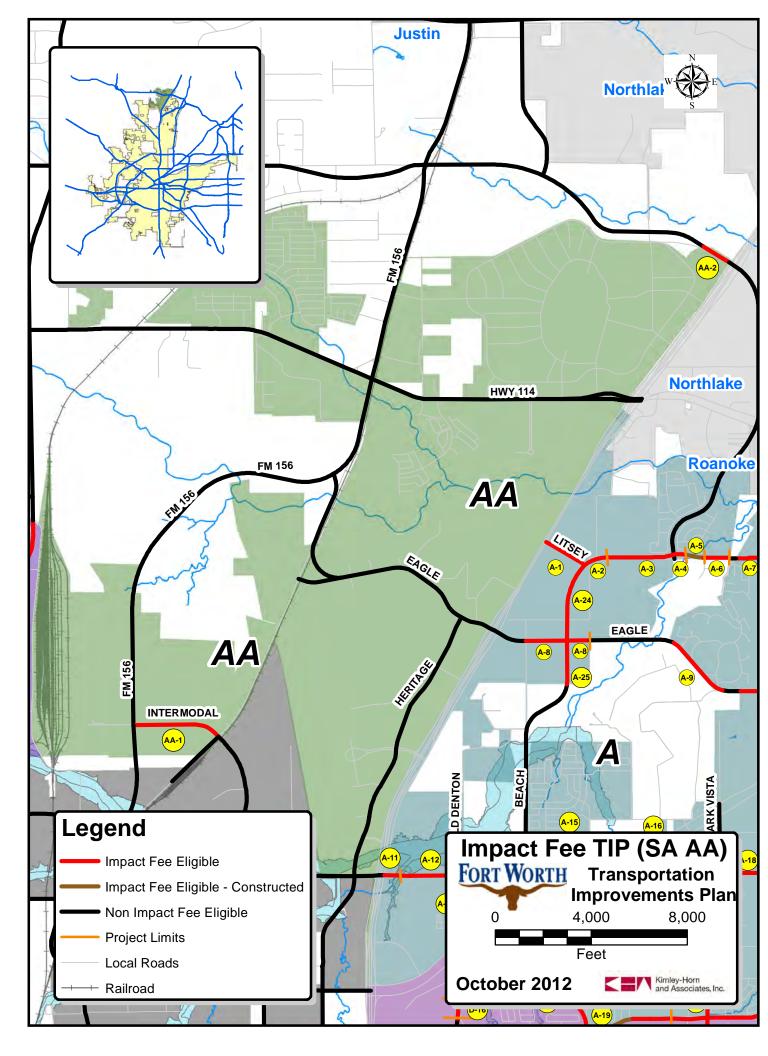


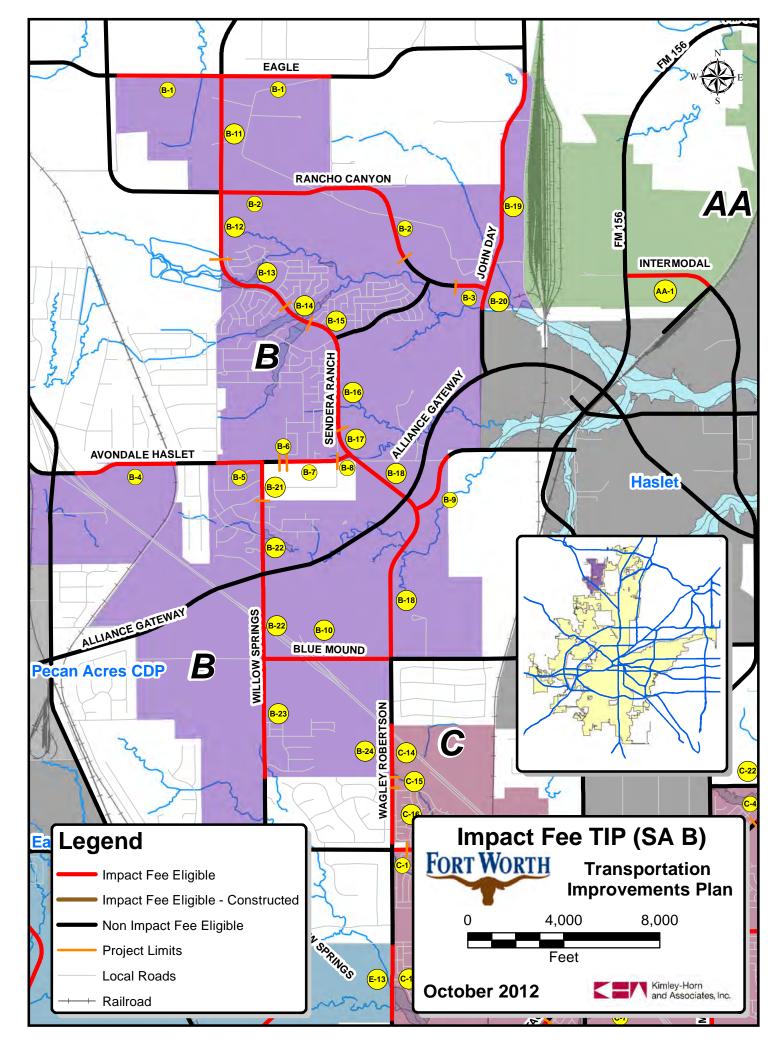


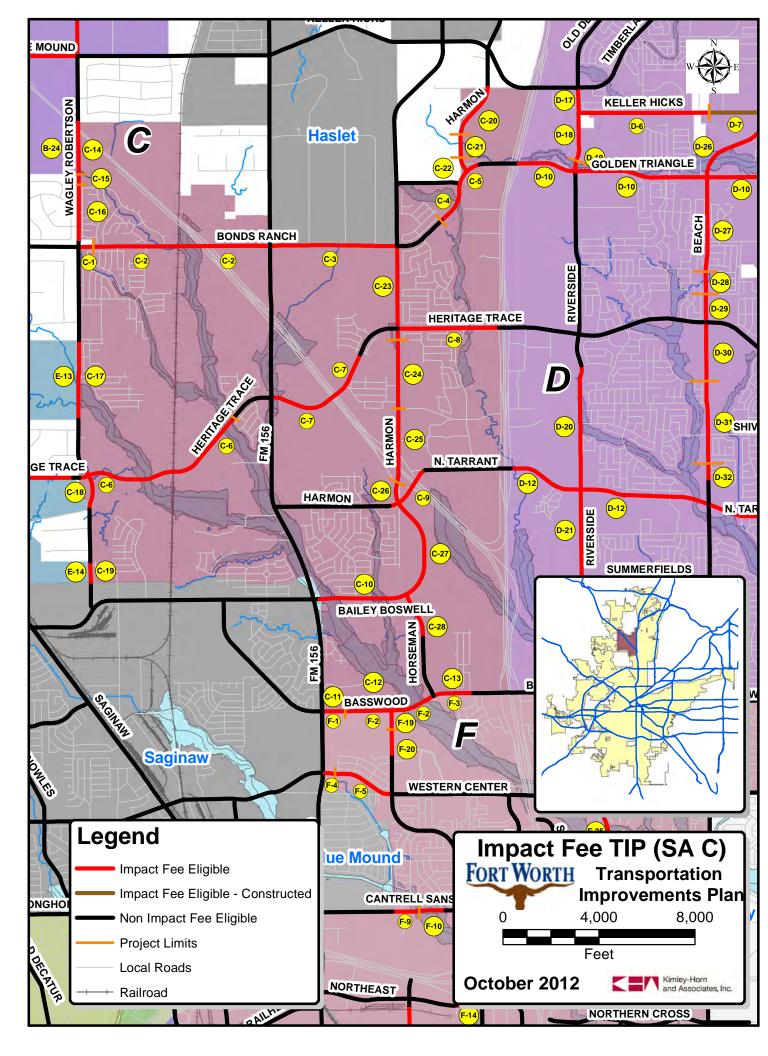
Table 2.Z. 10-Year Transportation Improvements Plan – Service Area Z

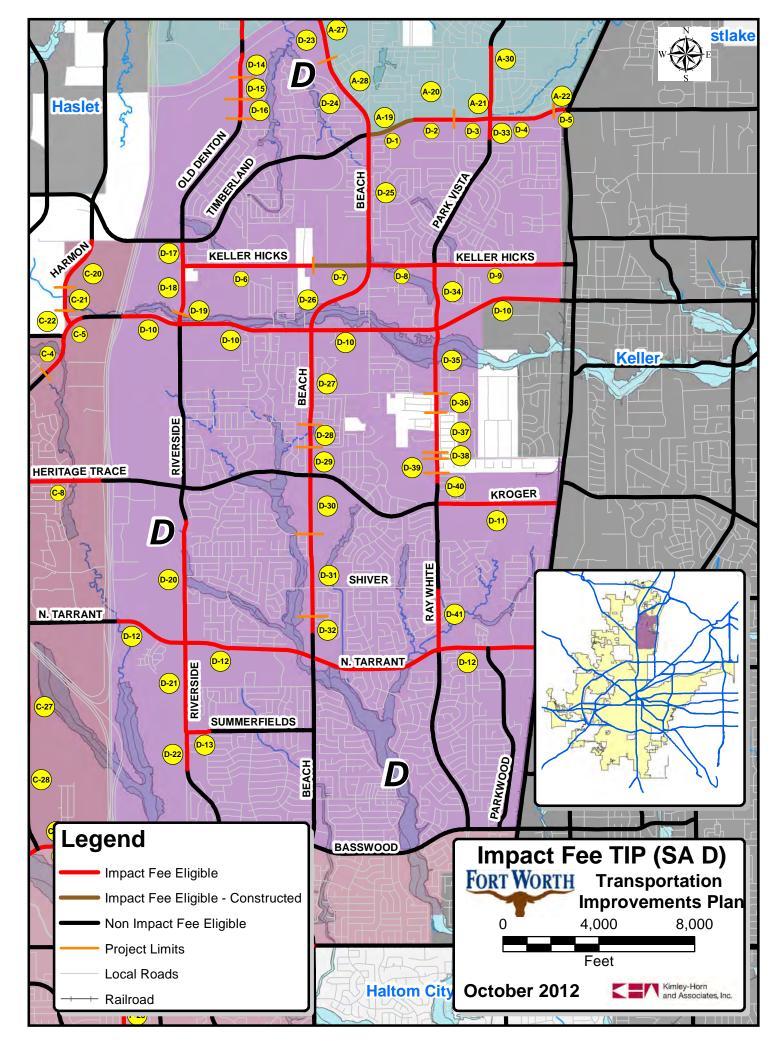
	Z-1, X-7 Z-2, X-8	MAAD		Limits	(mi)	Service Area
[ 	Z-2, X-8	MA4D	Everman Pkwy. (1)	Butterwick St. to Cameron Hill	0.56	50%
		MA4D (1/2)	Everman Pkwy. (2)	Cameron Hill to 320' E. of Sheridan Rd.	0.29	50%
l "	Z-3	MA4D	Shelby Rd.	Race St. to Rendon / Forest Hill Dr.	1.00	100%
	Z-4	MA4D-B	Risinger Rd. (4)	FM 731 to IH-35W SBFR	1.62	100%
[	Z-5	MA4D-B	Risinger Rd. (5)	IH-35W SBFR to Old Burleson Rd.	0.28	100%
Γ	Z-6	MA4D-B	Risinger Rd. (6)	Old Burleson Rd. to Oak Grove Rd.	0.79	100%
ľ	Z-7	MA4D-B	Oak Grove Shelby Rd.	Oak Grove Rd. to Race St.	1.01	100%
ľ	Z-8	MA4D-B	Oak Grove Shelby Rd./Risinger Rd.	Race St. to Rendon / Forest Hill Dr.	1.00	100%
l ""	<b>Z</b> -9	MA4D-B	McPherson Blvd. (4)	FM 731 to UP RR	1.30	100%
l ""	Z-10	MA4D-B (1/2)	McPherson Blvd. (5)	Bilsky Bay Dr. to IH-35W SBFR	0.09	100%
	Z-11	MA4D-B (1/2)	McPherson Blvd. (6)	IH-35W SBFR to IH-35W NBFR	0.13	100%
	Z-12	MA4D-B	McPherson Blvd. (7)	IH-35W NBFR to Stone (Oak Grove)	0.67	100%
"	Z-13	MA4D	McPherson Blvd. (8)	Stone (Oak Grove) to Forest Hill - Everman Rd.	1.44	100%
ľ	Z-14	M3U-B	McAlister Rd. (1)	50' W of UP RR to IH-35W SBFR	0.27	100%
"	Z-15	M4U-B	McAlister Rd. (2)	IH-35W SBFR to IH-35W NBFR	0.09	100%
l	Z-16	M4U-B	McAlister Rd. (3)	IH-35W NBFR to Stone Rd.	0.24	100%
l "	Z-17	MA4D	Alsbury Blvd.	70' E of IH-35W NBFR to Stone Rd.	0.20	100%
·	Z-18	MA4D-B	Hemphill St. (5)	Future Everman Pkwy, to Risinger Rd.	0.86	100%
·	Z-19	MA4D-B	Hemphill St. (6)	1670' S of Risinger Rd. to 580' N of Brasenose St.	1.66	100%
	Z-20	MA4D-B (1/2)	Hemphill St. (7)	580' N of Brasenose St. to Nuffield Ln.	0.23	100%
Z "	Z-21	M4U-B (1/2)	Hemphill St. (8)	FM 1187 EB to McAlister Rd.	0.25	100%
-	Z-22	M4U-B	Hemphill St. (9)	McAlister Rd. to S. City Limits	0.20	100%
	Z-23	MA4D-B	Oak Grove Rd. (4)	Forum Way to Future Risinger Rd./Oak Grove Shelby	0.36	100%
l "	Z-24	MA4D-B	Oak Grove Rd. (5)	Oak Grove Shelby to Oak Grove Rd. (Realigned)	0.19	100%
	Z-25	MA4D-B	Oak Grove Rd. (6)	Oak Grove Rd. (Realigned) to Buffalo Springs Dr.	0.62	100%
	Z-26	MA4D-B	Oak Grove Rd. (7)	Buffalo Springs Dr. to McPherson Blvd.	0.13	100%
	Z-27	MA4D-B	Oak Grove Rd. (8)	McPherson Blvd. to Oak Grove E.	0.43	100%
	Z-28	MA4D-B	Stone Rd. (1)	Oak Grove E. to Nelson Pl.	0.52	100%
	Z-29	MA4D-B	Stone Rd. (2)	Nelson Pl. to FM 1187	0.90	100%
	Z-30	M4U-B	Stone Rd. (3)	FM 1187 to Alsbury Dr.	1.07	100%
ļ	Z-31	M4U-B	Stone Rd. (4)	Akbury Blvd. to Abner Lee Dr.	0.62	100%
	Z-32	M4U-B	Stone Rd. (5)	Abner Lee Dr. to S City Limits	0.11	100%
<u> </u>	Z-33	MA4D	Wichita St. (3)	Shelby Rd. to Risinger Rd.	0.52	100%
	Z-34	MA4D (1/2)	Wichita St. (4)	Race St. to 790' W. of Race St.	0.15	100%
	Z-35	MA4D	Wichita St. (5)	790' W of Race St. to McPherson Blvd.	0.81	100%
	Z-36	MA4D	Oak Grove Rd. (9)	McPherson Blvd. to Nicole Way	0.96	100%
	Z-37	MA4D-B	Oak Grove Rd. (10)	Nelson Pl. to 115' N. of Doe Meadow Dr.	0.22	100%
	Z-38	M4U-B	Oak Grove Rd. (11)	FM 1187 to Burleson Retta Rd.	1.55	100%
<b> -</b>	Z-39	M4U-B	Wildcat Way	Burleson Retta Rd. to S. City Limits	0.64	100%
	Z-40	MA4D	Rendon / Forest-Hill (1)	640' N of Chambers Creek Dr. to Shelby Rd.	0.45	50%
	Z-40 Z-41	MA4D	Rendon / Forest-Hill (2)	Shelby Rd. to 80' S of future Risinger Rd.	0.50	50%

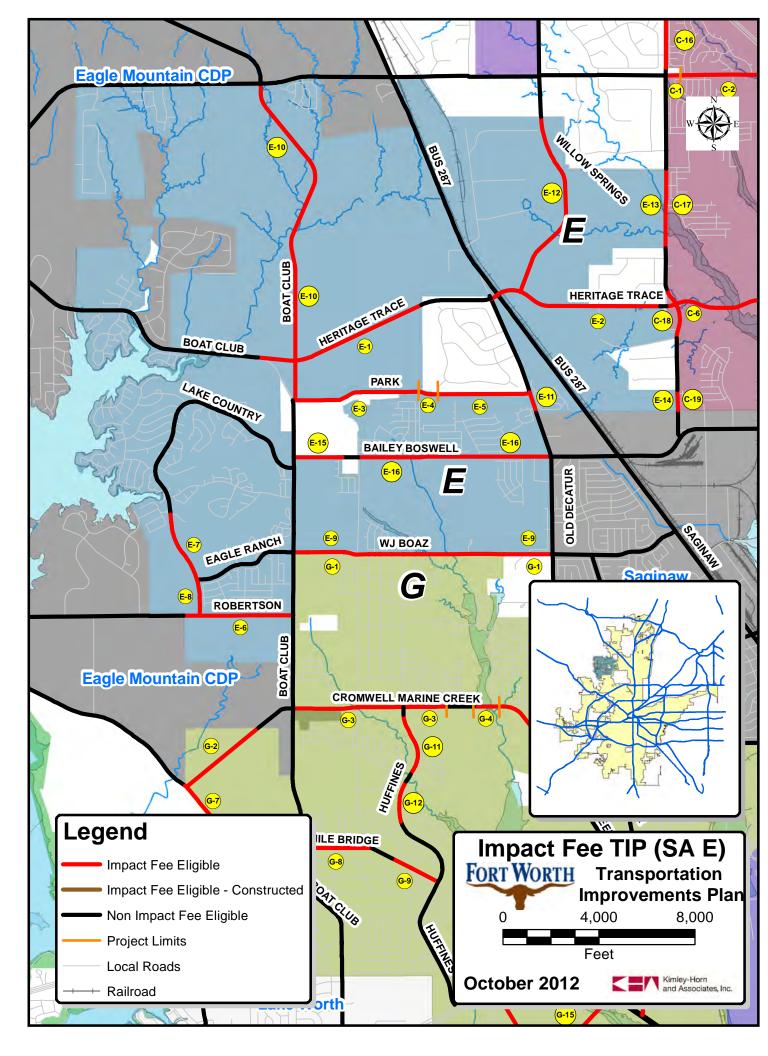


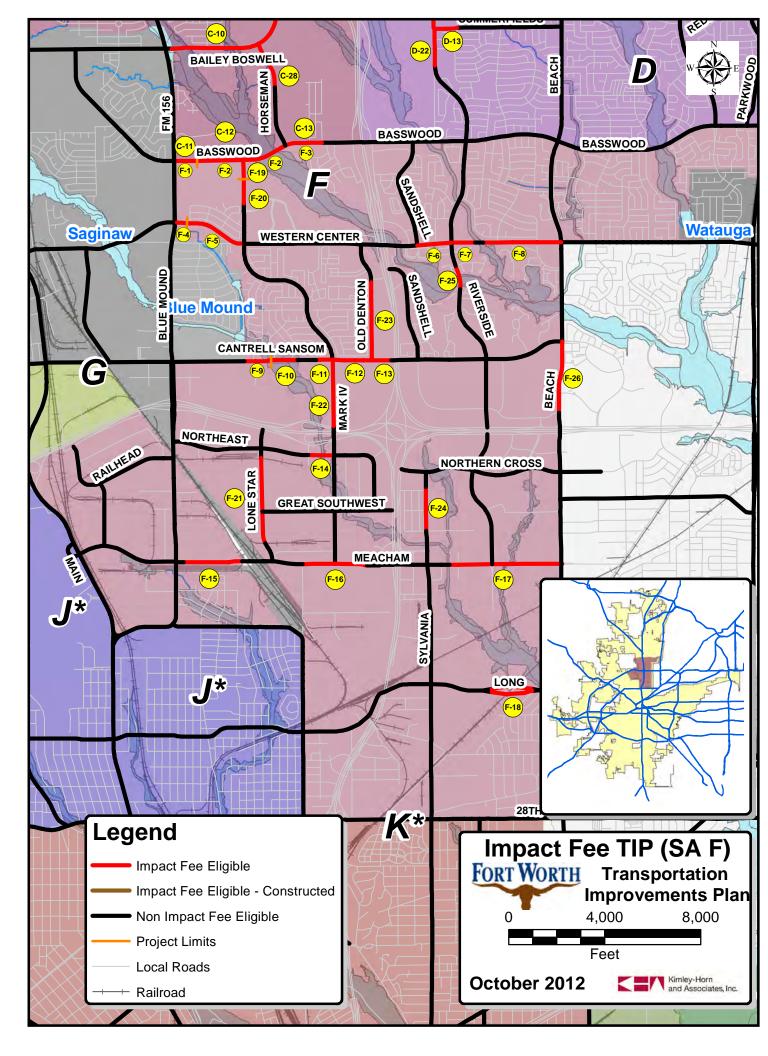


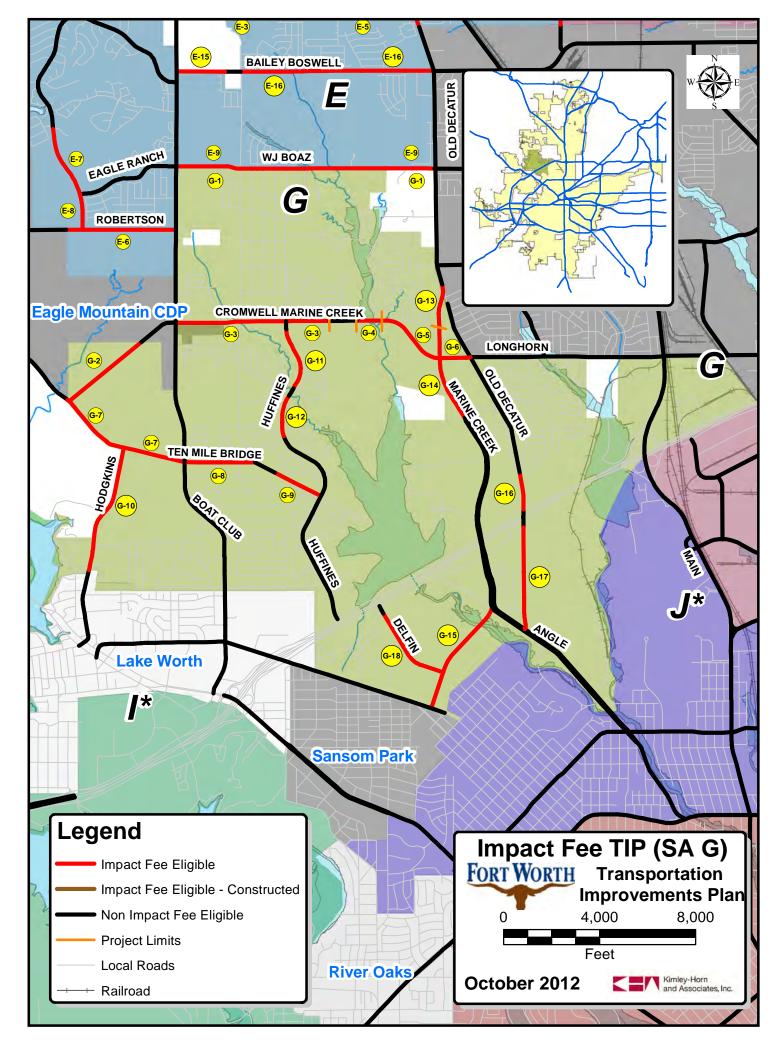


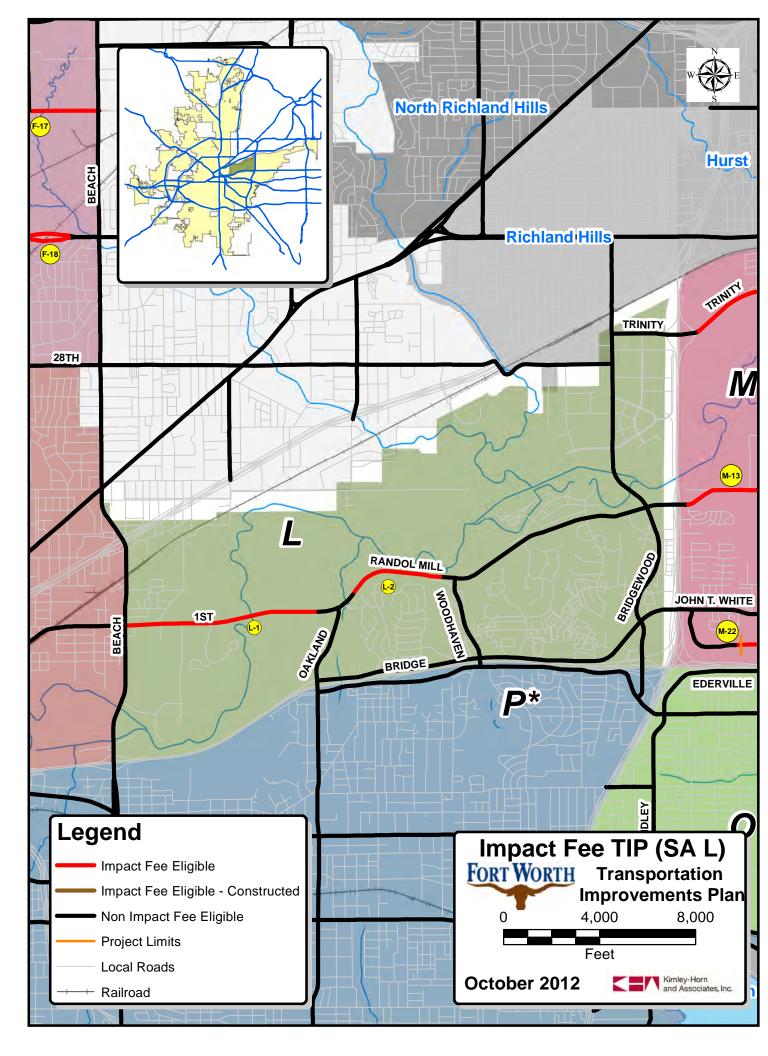


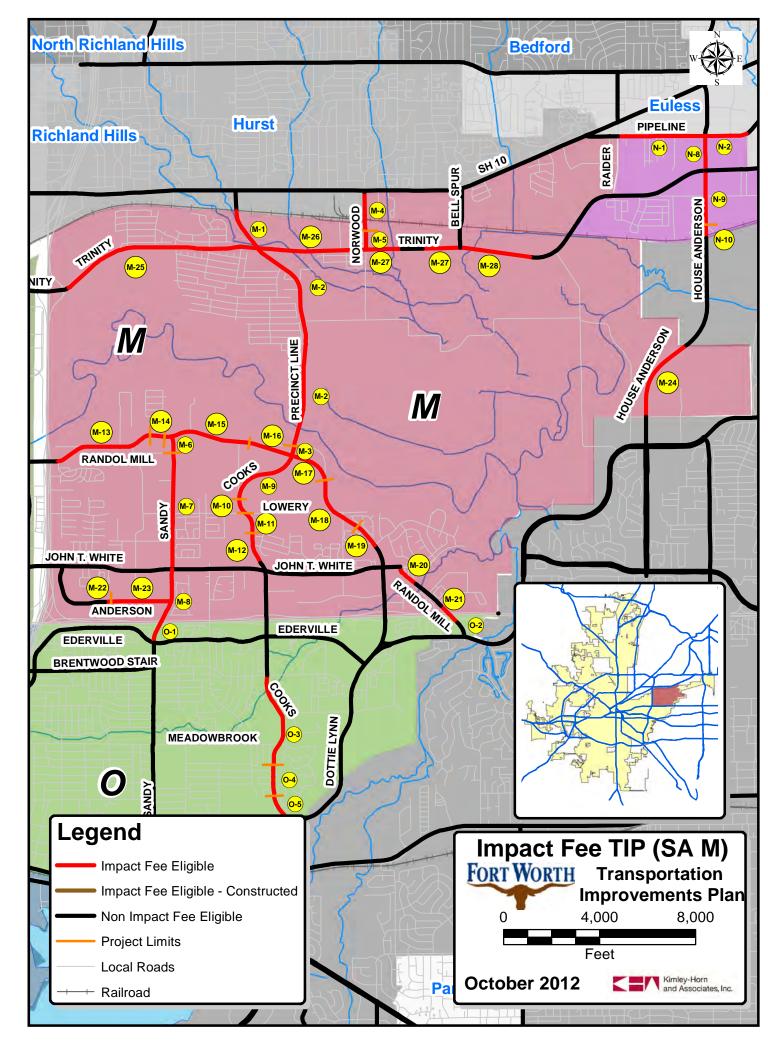


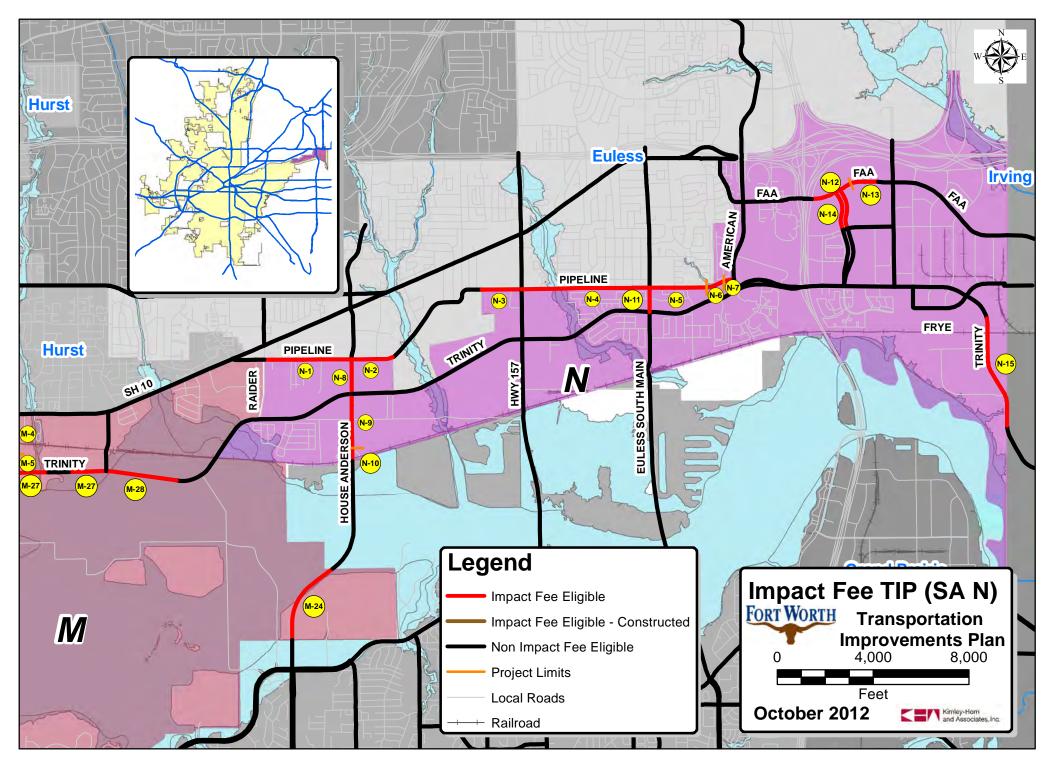


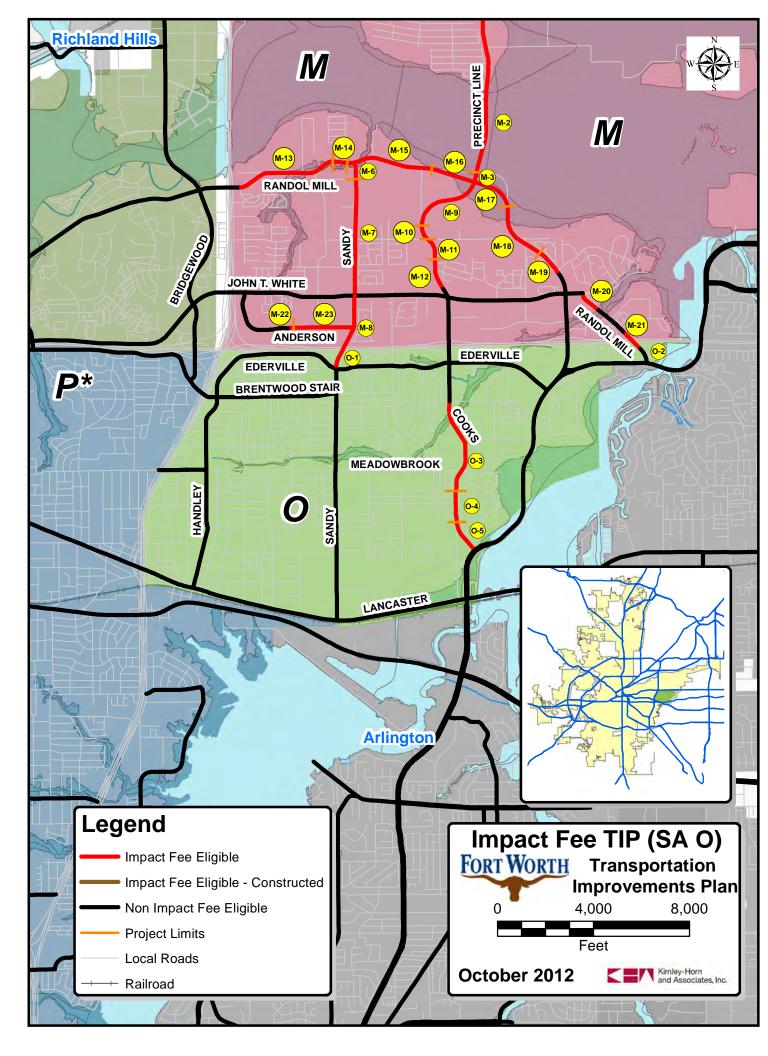


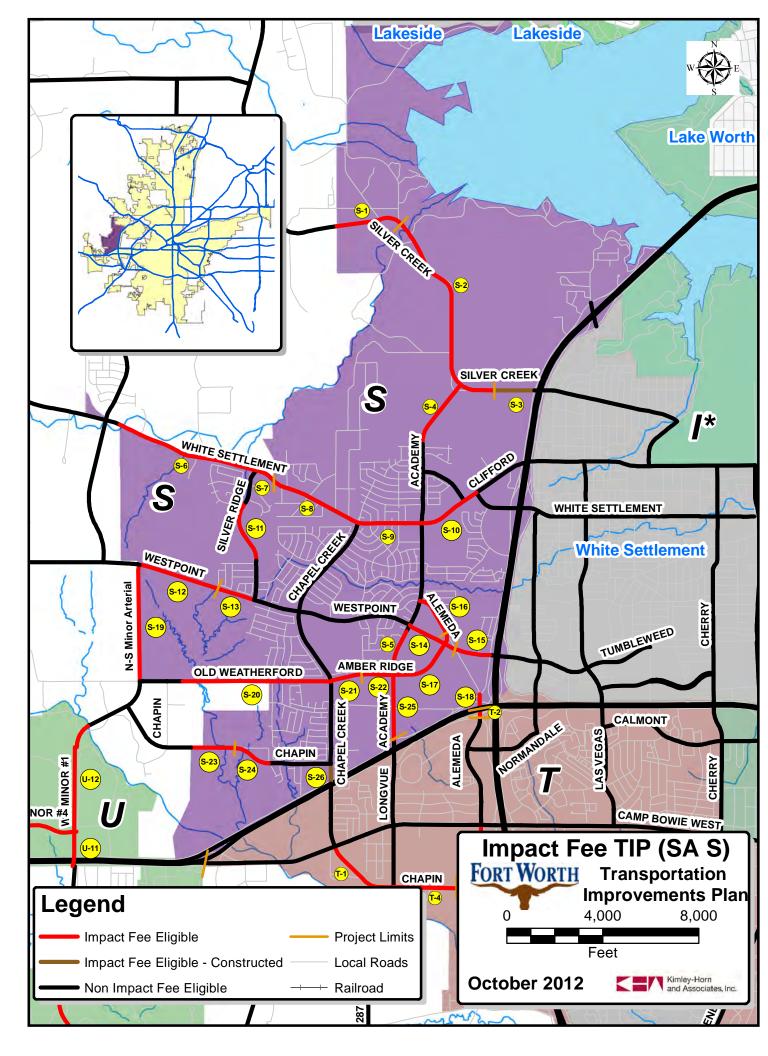


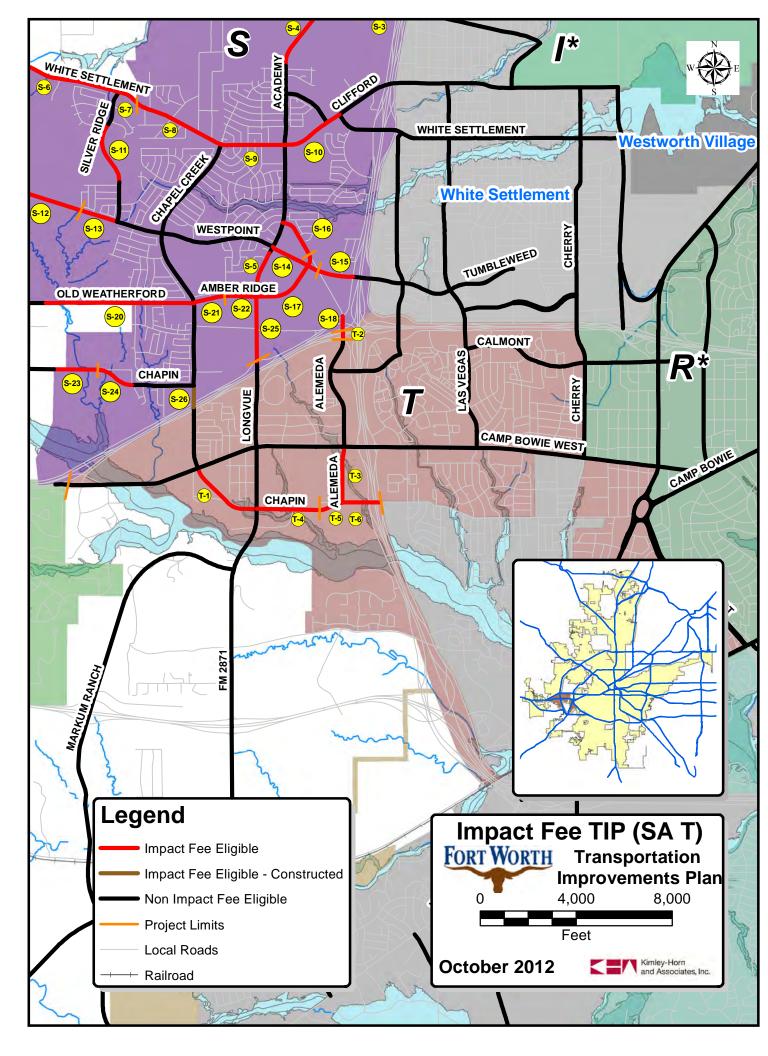


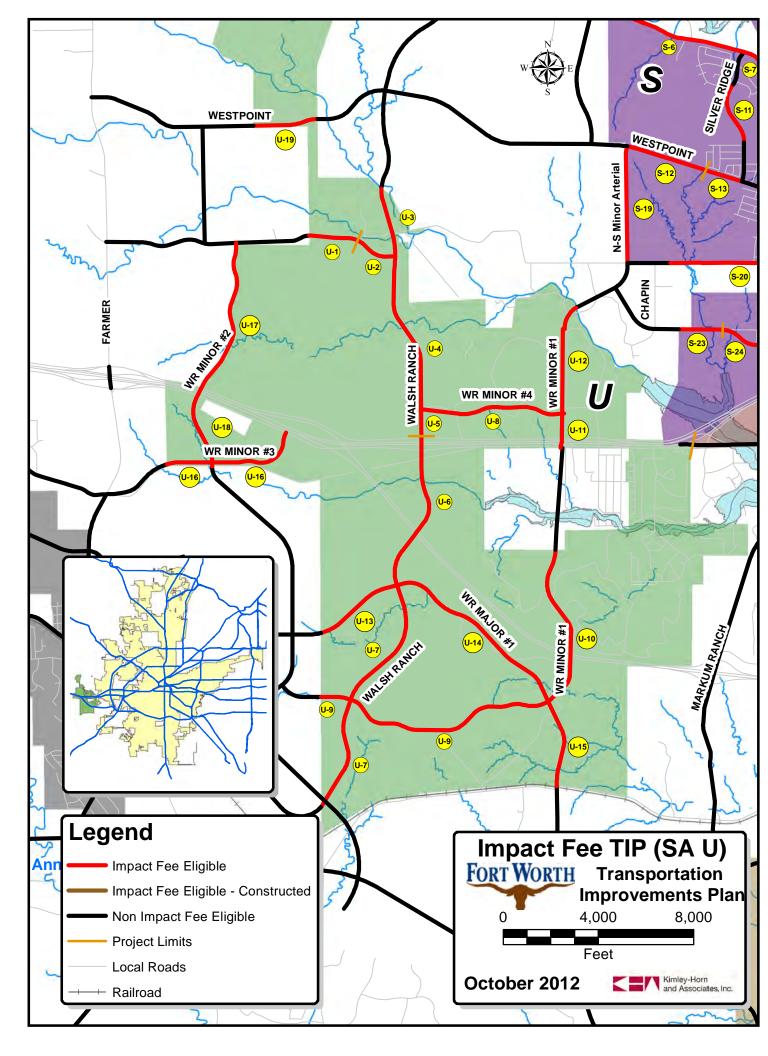


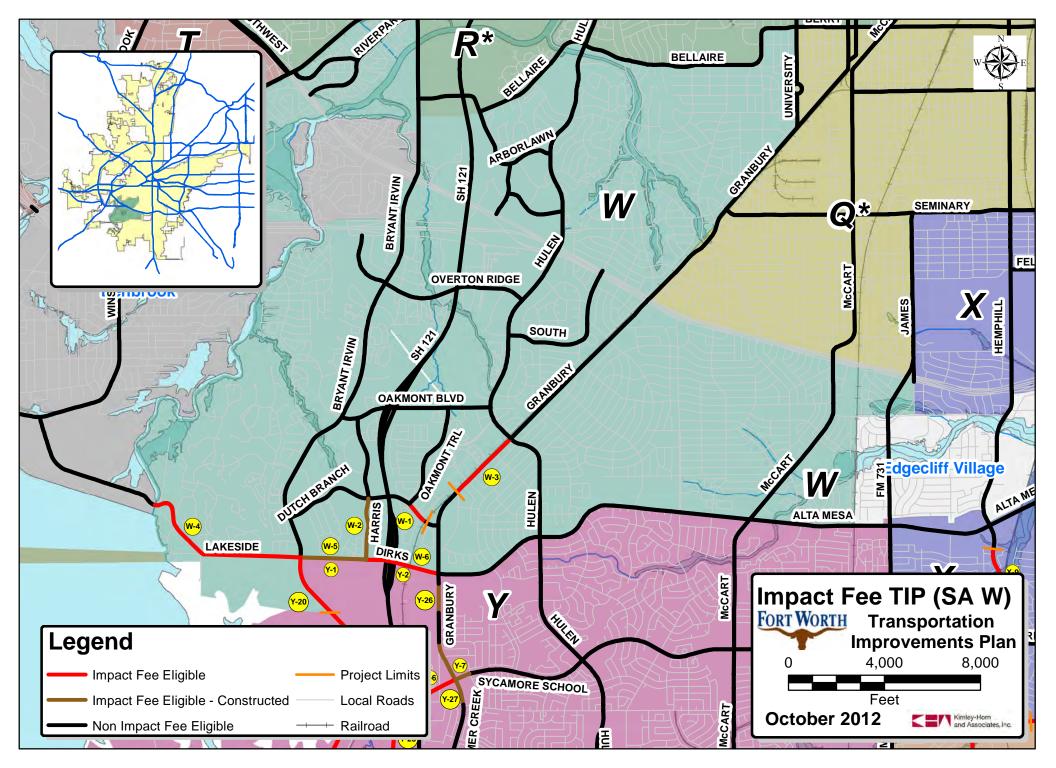


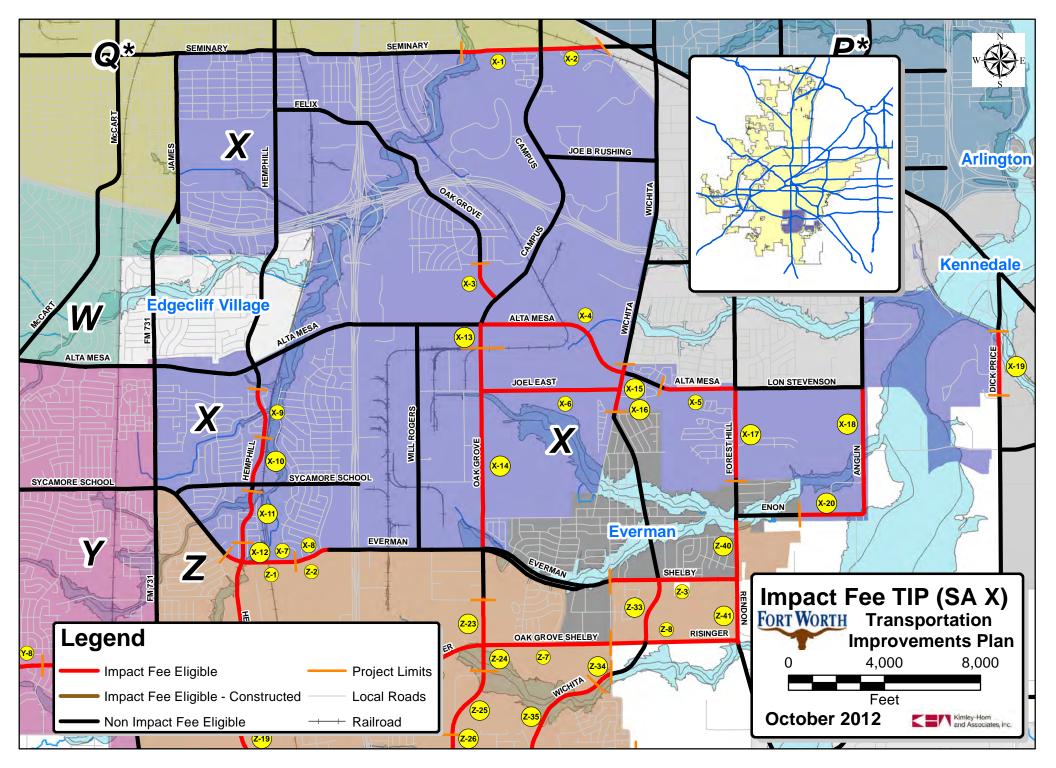


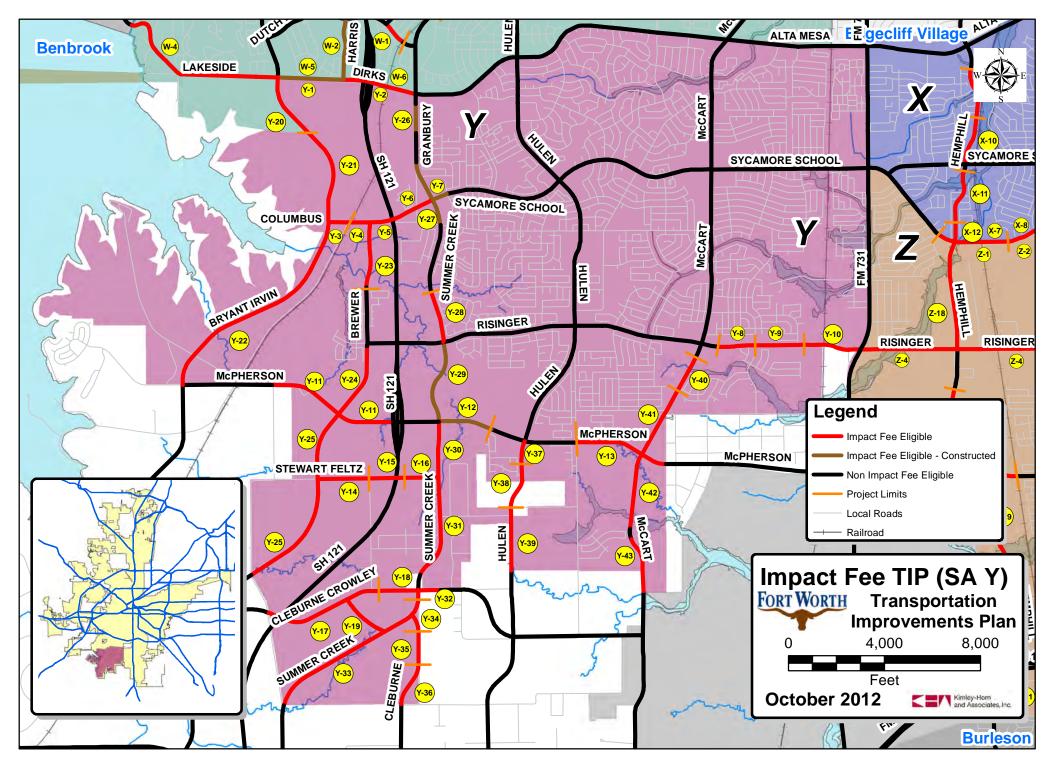


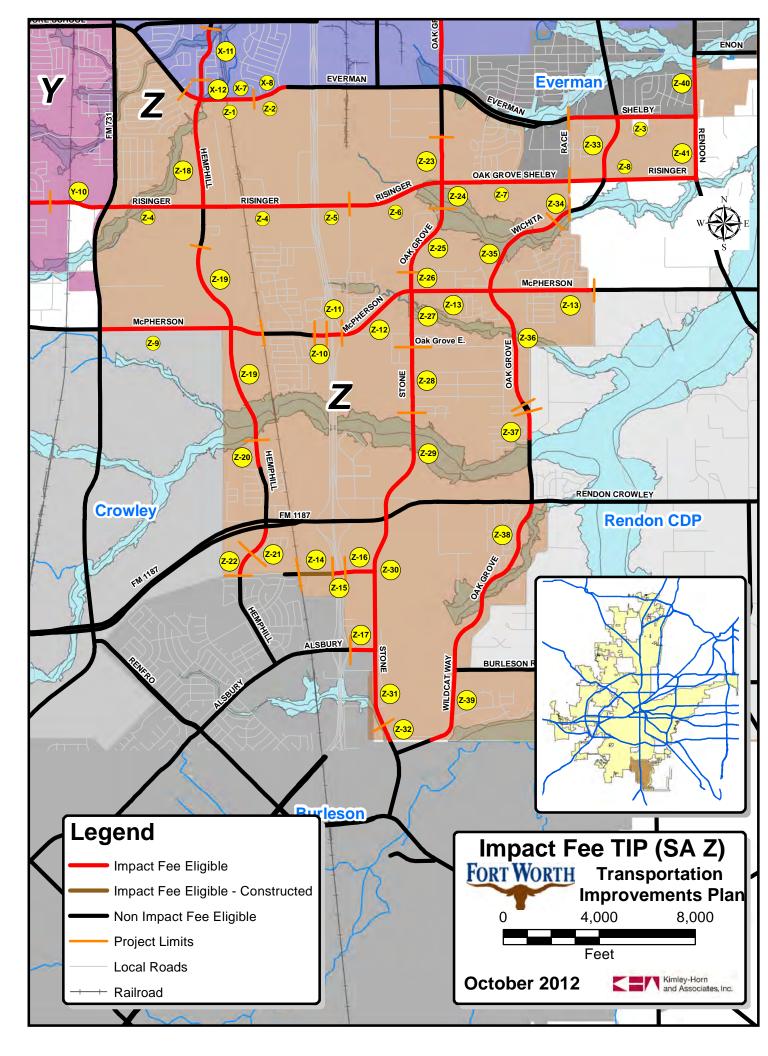


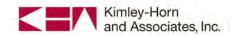














### IV. METHODOLOGY FOR TRANSPORTATION IMPACT FEES

### A. SERVICE AREAS

The twenty-seven (27) service areas used in the 2013 Transportation Impact Fee Study are shown in the previously referenced **Exhibit 1**. These service areas cover the entire corporate boundary 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 2013 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.

### **B. SERVICE UNITS**

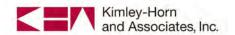
The "service unit" is a measure of consumption or use of the capital facilities by new development. In other words, it is the unit of measure used in the Transportation Impact Fee study to quantify the supply and demand for roads in the City. For transportation purposes, the service unit is defined as a vehicle-mile. On the supply side, vehicle-miles make up a lane-mile of an arterial street (the number of vehicle-miles available depends on the classification of a roadway facility). On the demand side, a vehicle-mile is a vehicle-trip of one-mile in length. The application of this unit as an estimate of either supply or demand is based on travel during the afternoon peak hour of traffic. This time period is commonly used as the basis for transportation planning and the estimation of trips caused by new development.

Another aspect to quantifying the number of service units supplied is the capacity that is provided (supplied) by a lane-mile of roadway facility. Capacity is a function of the facility's classification, number of lanes, and level of service. The threshold utilized in the analysis is the actual capacity of the roadway (i.e. the point at which the volume to capacity ratio equals 1.0).

The capacity values used in the 2013 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 – TIP Service Units of Supply)

Facility Classification	Median Configuration	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
Principal Arterial (P6D)	Divided	700
Major Arterial (M4D)	Divided	700
Minor Arterial (M4U)	Undivided	650





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

Roadway Type	Description	Hourly Vehicle-Mile Capacity per Lane-Mile of Roadway Facility
2U-R	Rural Cross-Section (i.e., gravel, dirt, etc.)	150
2U-H	Two lane undivided – Arterial Type	700
2U	Two lane undivided	425
3U	Three lane undivided (two-way, left-turn lane)	650
<b>4</b> U	Four lane undivided	650
4D	Four lane divided	700
6D	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. This cost per service unit is the cost to construct a roadway (lane-mile) needed to accommodate a vehicle-mile of travel at a level of service corresponding to the City's standards. The cost per service unit is calculated for each service area based on a specific list of projects within that service area.

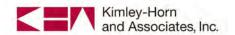
The second component of the cost per service unit is the number of service units in each service area. This number is the measure of the growth in transportation demand that is projected to occur in the ten-year period. Chapter 395 requires that Impact Fees are assessed only to pay for growth projected to occur within the next ten years, a concept that will be covered in a later section of this report (see **Section IV.E**). As noted earlier, the units of demand are vehicle-miles of travel.

### D. COST OF THE TIP

All of the project costs for an arterial system are eligible to be included in the 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 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. Cash funds allocated from community facilities agreements have been subtracted from the corresponding City projects. In addition, based upon discussions with City of Fort Worth staff, state and county highway projects in which the City will contribute a portion of the total project cost have been included in the TIP as lump sum costs.

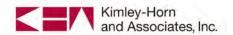
A typical roadway project consists of a number of costs, including the following: construction, design engineering, survey, and right-of way acquisition. While the construction cost component of a project may actually consist of approximately 100 various pay items, a simplified approach was used for developing the conceptual level project costs. Each new project's construction cost was divided into two cost components: roadway construction cost and major construction component allowances. The roadway construction components consist of the following pay items: (1) unclassified street excavation, (2) lime stabilization, (3) concrete pavement, (4) curb & gutter, (5) topsoil, (6) sidewalk, and (7) turn lanes and median openings.

A percentage of the paving construction cost subtotal, is allotted for various major construction component allowances as appropriate. These allowances include preparation of ROW, traffic control, pavement markings/markers, roadway drainage, illumination, minor water and sewer adjustments, establishing turf / erosion control and basic landscaping / irrigation. These allowance percentages are also based on historical data. In addition, lump sum dollar allowances are provided for special drainage structures, railroad crossings, and intersection improvements at half-mile intervals. The paving and allowance subtotal is given a fifteen percent (15%) contingency to determine the construction cost total. To determine the total Impact Fee Project Cost, a percentage of the construction cost total is added for engineering, surveying, testing, and mobilization. Percentages are also allotted for mobilization and ROW/easement acquisition.

The construction costs are variable based on the proposed Master Thoroughfare Plan classification of the roadway. Additional classifications are utilized in cases where a portion of the facility currently exists. The following indication is used for these projects:

- "(1/2)" for facilities where half the facility still needs to be constructed;
- "(1/3)" for future six-lane principal arterials facilities where two additional median lanes are needed;
- "(2/3)" for future six-lane principal arterials facilities where four additional lanes are needed; and
- "- B" for facilities identified on the City of Fort Worth's Bike Plan.

**Tables 4.A** – **4.Z** are the 10-Year Transportation Improvements Plan (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 TIP establishes the list of projects for which Impact Fees may be utilized. Essentially, it establishes a list of projects for which an impact fee funding program can be established. Projects not included in the TIP are not eligible to receive impact fee funding. The TIP is different from a City's construction CIP, which provides a short-term list of projects that the City is committed to building. The TIP for Impact Fees is simply an inventory of future projects needed to serve future development. The cost projections utilized in this study should not be utilized for the City's building program or construction CIP.





# Table 4.A – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area A

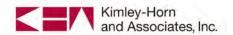
Service Area	Proj.#	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	A-1	MA4D	Litsey Rd. (1)	IH-35W to Future N. Beach St.	0.35	100%	\$ 2,340,000	\$ 2,340,000
	A-2	MA4D	Litsey Rd. (2)	Future N. Beach St. to Existing Litsey Rd.	0.19	100%	\$ 1,267,000	\$ 1,267,000
	A-3	MA4D	Litsey Rd. (3)	425' E. of Elizabethtown C. Rd. to Cleveland Gibbs Rd.	0.53	100%	\$ 3,583,000	\$ 3,583,000
	A-4	MA4D	Litsey Rd. (4)	Cleveland Gibbs Rd. to 470' E of Cleveland Gibbs Rd.	0.09	100%	\$ 560,000	\$ 560,000
	A-5	MA4D	Litsey Rd. (5)	Henrietta Creek Bridge	0.15	100%	\$ 1,600,000	\$ 1,600,000
	A-6	MA4D	Litsey Rd. (6)	Henrietta Creek Bridge to Seventeen Lakes Blvd.	0.20	100%	\$ 1,273,000	\$ 1,273,000
	A-7	MA4D	Litsey Rd. (7)	270' E of Seventeen Lakes Blvd. to E. City Limits	0.37	100%	\$ 2,309,000	\$ 2,309,000
	A-8	MA4D-B	Eagle Pkwy. (1)	Elizabethtown C. Rd. to 950' E. of Future Beach St.	0.50	100%	\$ 3,709,000	\$ 3,709,000
	A-9	MA4D-B	Eagle Pkwy. (2)	W. City Limits to Henrietta Creek Rd.	0.54	100%	\$ 3,974,000	\$ 3,974,000
	A-10	MA4D-B (1/2)	Henrietta Creek Rd.	W. City Limits to Independence Pkwy.	0.31	100%	\$ 1,130,000	\$ 1,130,000
	A-11	MA4D-B (1/2)	Westport Pkwy. (1)	IH-35W NBFR to 640' E. of IH-35W NBFR	0.12	100%	\$ 612,000	\$ 612,000
Ī	A-12	MA4D-B	Westport Pkwy. (2)	640' E. of IH-35W NBFR to Old Denton Rd.	0.50	100%	\$ 3,482,000	\$ 3,482,000
	A-13	MA4D-B	Westport Pkwy. (3)	Old Denton Rd. to Future N. Beach St.	0.50	100%	\$ 3,888,000	\$ 3,888,000
Ī	A-14	MA4D-B	Westport Pkwy. (4)	Future N. Beach St. to Alta Vista Rd.	0.41	100%	\$ 2,610,000	\$ 2,610,000
	A-15	MA4D-B (1/2)	Westport Pkwy. (5)	Alta Vista Rd. to Haslet-Roanoke Rd.	0.22	100%	\$ 806,000	\$ 806,000
	A-16	MA4D-B	Westport Pkwy. (6)	495' NW of SH 170 WBFR to SH 170 WBFR	0.09	100%	\$ 642,000	\$ 642,000
A	A-17	MA4D-B	Westport Pkwy. (7)	SH 170 EBFR to Existing Westport Pkwy.	0.40	100%	\$ 2,732,000	\$ 2,732,000
	A-18	MA4D-B (1/2)	Westport Pkwy. (8)	400' E of Park Vista Blvd. to 1370' W of Independence Pkwy.	0.37	100%	\$ 1,341,000	\$ 1,341,000
	A-19, D-1	MA4D-B	Timberland Blvd. (1)	Beach St. to 425' E of Lillybrook Ln.	0.39	50%	\$ 544,917	\$ 272,459
	A-20, D-2	MA4D-B	Timberland Blvd. (2)	425' E of Lillybrook Ln. to Caylor Rd.	0.30	50%	\$ 1,970,000	\$ 985,000
	A-21, D-3	MA4D-B	Timberland Blvd. (3)	Caylor Rd. To Park Vista Blvd.	0.29	50%	\$ 1,571,000	\$ 785,500
	A-22, D-5	MA4D-B	Timberland Blvd. (5)	390' E of Harvest Oaks Dr. to E. City Limits	0.10	50%	\$ 695,000	\$ 347,500
	A-23	MA4D-B	Old Denton Rd. (1)	Westport Pkwy. to SH 170 WB	0.52	100%	\$ 3,605,000	\$ 3,605,000
	A-24	MA4D	N. Beach St. (1)	Litsey Rd. to Eagle Pkwy.	0.63	100%	\$ 4,391,000	\$ 4,391,000
	A-25	MA4D-B	N. Beach St. (2)	Eagle Pkwy. to S. City Limits	0.35	100%	\$ 2,388,000	\$ 2,388,000
	A-26	P6D-B	N. Beach St. (3)	Westport Pkwy. to SH 170 WB	0.21	100%	\$ 1,844,000	\$ 1,844,000
	A-27, D-23	P6D-B	N. Beach St. (4)	SH 170 EBFR to 410' N of Saratoga Downs	0.39	50%	\$ 3,383,000	\$ 1,691,500
	A-28, D-24	P6D (1/3)	N. Beach St. (5)	410' N of Saratoga Downs Way to Timberland Blvd.	0.70	50%	\$ 1,378,000	\$ 689,000
	A-29	MA4D-B	Independence Pkwy. (1)	N. City Limits to Henrietta Creek Rd.	1.15	100%	\$ 8,404,000	\$ 8,404,000
ľ	A-30	MA4D-B (1/2)	Park Vista Blvd. (1)	Keller-Haslet Rd. to Timberland Blvd.	0.56	100%	\$ 2,282,000	\$ 2,282,000
Ī					Service A	rea Projec	ct Cost Subtotal	\$ 65,542,959
				Transportation Impact	t Fee Stud	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA A \$ 65,568,514

# Table 4.AA – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area AA

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	AA-1	P6D (2/3)	Intermodal Pkwy.	FM 156 to Haslet County Line Rd	0.70	100%	\$ 4,178,000	\$ 4,178,000
AA	AA-2	P6D (1/2)	Cleveland-Gibbs Rd.	N. City Limits to IH-35W SBFR	0.24	100%	\$ 1,049,000	\$ 1,049,000
AA					Service A	rea Projec	t Cost Subtotal	\$ 5,227,000
	Transportation Impact Fee Study Cost (Per Service Area)							

Total Cost in SERVICE AREA AA \$ 5,252,555

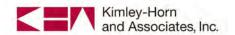




# Table 4.B – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area B

Service Area	Proj.#	Class	Roadway	Limits	Le ngth (mi)	% In Service Area	Total Project Cost	Cost in Service Area		
	B-1	MA4D-B	Eagle Pkwy.	W. City Limits to E. City Limits	1.69	50%	\$ 12,769,000	\$ 6,384,500		
	B-2	M4U	Rancho Canyon Way (1)	Sendera Ranch Blvd. to Salida Rd.	1.82	100%	\$ 9,470,000	\$ 9,470,000		
	B-3	M4U-B	Rancho Canyon Way (2)	80' E of Cabo St. to Future John Day Rd.	0.25	100%	\$ 1,222,000	\$ 1,222,000		
	B-4	M4U	Avondale Haslet Rd. (1)	US 287 NBFR to Bates Aston Rd.	0.80	100%	\$ 3,205,608	\$ 3,205,608		
	B-5	M4U	Avondale Haslet Rd. (2)	N. Willow Springs Rd. to Willow Springs Rd.	0.36	100%	\$ 1,609,000	\$ 1,609,000		
	B-6	M4U	Avondale Haslet Rd. (3)	235' W. of Moonlake Way to Moonlake Way	0.04	100%	\$ 165,000	\$ 165,000		
	B-7	M4U	Avondale Haslet Rd. (4)	Moonlake Way to Sendera Ranch Blvd.	0.40	100%	\$ 1,808,000	\$ 1,808,000		
	B-8	M4U	Avondale Haslet Rd. (5)	Sendera Ranch Blvd. to Future Sendera Ranch Blvd.	0.11	100%	\$ 943,000	\$ 943,000		
	B-9	M4U	Avondale Haslet Rd. (6)	Future Sendera Ranch Blvd. to E. City Limits	0.52	100%	\$ 2,730,000	\$ 2,730,000		
	B-10	M4U-B	Blue Mound Rd.	Willow Springs Rd. to Future Wagley Robertson Rd.	1.00	100%	\$ 5,181,000	\$ 5,181,000		
	B-11	P6D	Sendera Ranch Blvd. (1)	Future Eagle Pkwy. to Rancho Canyon Way	0.92	100%	\$ 8,158,000	\$ 8,158,000		
	B-12	P6D	Sendera Ranch Blvd. (2)	Rancho Canyon Way to Suncatcher Way	0.53	50%	\$ 4,846,000	\$ 2,423,000		
В	B-13	P6D (1/3)	Sendera Ranch Blvd. (3)	Suncatcher Way to Snaffle Bit Trl.	0.69	100%	\$ 1,354,000	\$ 1,354,000		
ь	B-14	P6D (2/3)	Sendera Ranch Blvd. (4)	Snaffle Bit Trl. to Mustang Ridge Dr.	0.23	100%	\$ 2,071,000	\$ 2,071,000		
	B-15	P6D (1/3)	Sendera Ranch Blvd. (5)	Mustang Ridge Dr. to Diamondback Ln.	0.25	100%	\$ 481,000	\$ 481,000		
	B-16	P6D (2/3)	Sendera Ranch Blvd. (6)	Diamondback Ln. to Future Sendera Ranch Blvd.	0.72	100%	\$ 4,678,000	\$ 4,678,000		
	B-17	P6D	Sendera Ranch Blvd. (7)	Existing Sendera Ranch Blvd. to Future Avondale Haslet	0.21	100%	\$ 1,849,000	\$ 1,849,000		
	B-18	P6D	Sendera Ranch Blvd. (8)	Future Avondale Haslet to Blue Mound Rd.	1.93	100%	\$ 18,225,000	\$ 18,225,000		
	B-19	MA4D-B	John Day Rd. (1)	N. City Limits to Rancho Canyon Way	1.78	100%	\$ 13,392,000	\$ 13,392,000		
	B-20	MA4D	John Day Rd. (2)	Rancho Canyon Way to S. City Limits	0.15	100%	\$ 998,000	\$ 998,000		
	B-21	M4U-B	Willow Springs Rd. (1)	Avondale Haslet Rd. to 205' S. of Velda Kay Ln.	0.30	50%	\$ 1,426,000	\$ 713,000		
	B-22	M4U-B	Willow Springs Rd. (2)	205' S. of Velda Kay Ln. to Blue Mound Rd.	1.25	100%	\$ 6,462,000	\$ 6,462,000		
	B-23	M4U-B	Willow Springs Rd. (3)	Blue Mound Rd. to S. City Limits	0.93	100%	\$ 4,628,000	\$ 4,628,000		
	B-24, C-14	MA4D	Wagley Robertson Rd. (1)	250' N. of US 287 to 125' N of Hawks Landing Rd.	0.41	50%	\$ 7,067,000	\$ 3,533,500		
			<u> </u>		Service A	rea Proje	ct Cost Subtotal	\$ 101,683,608		
	Transportation Impact Fee Study Cost (Per Service Area) \$									

Total Cost in SERVICE AREA B \$ 101,709,163

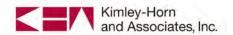




# **Table 4.C – 10-Year Transportation Improvements Plan** with Conceptual Level Cost Projections – Service Area C

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	C-1	MA4D-B	Bonds Ranch Rd. (1)	Wagley Robertson Rd. to Foothill Dr.	0.12	50%	\$ 1,158,000	\$ 579,000
	C-2	MA4D-B	Bonds Ranch Rd. (2)	Foothill Dr. to FM 156	1.39	100%	\$ 10,340,000	\$ 10,340,000
	C-3	MA4D-B	Bonds Ranch Rd. (3)	FM 156 to Harmon Rd.	1.00	100%	\$ 7,368,000	\$ 7,368,000
	C-4	MA4D-B (1/2)	Golden Triangle Blvd. (1)	Misty Redwood Trl. to Golden Heights Rd.	0.34	100%	\$ 1,635,000	\$ 1,635,000
	C-5	MA4D-B	Golden Triangle Blvd. (2)	Golden Heights Rd. to Existing Golden Triangle Blvd.	0.23	100%	\$ 1,565,000	\$ 1,565,000
	C-6	MA4D-B	Heritage Trace Pkwy. (3)	Wagley Robertson Rd. to 220' SW of Drovers View Trl.	1.43	100%	\$ 12,315,000	\$ 12,315,000
	C-7	MA4D-B	Heritage Trace Pkwy. (4)	FM 156 to 130' S of Creosote Dr.	0.93	100%	\$ 9,972,000	\$ 9,972,000
	C-8	P6D (1/3)	Heritage Trace Pkwy. (5)	Harmon Rd. to IH-35W SBFR	0.80	100%	\$ 1,561,000	\$ 1,561,000
	C-9	P6D-B	N. Tarrant Pkwy. (1)	Existing Harmon Rd. to Existing N. Tarrant Pkwy.	0.41	100%	\$ 9,779,000	\$ 9,779,000
	C-10	MA4D	Bailey Boswell Rd. (3)	FM 156 to Horseman Rd.	0.69	100%	\$ 5,670,000	\$ 5,670,000
	C-11, F-1	MA4D-B (1/2)	Basswood Blvd. (1)	Blue Mound Rd. (FM 156) to 960' E. of FM 156	0.18	50%	\$ 664,000	\$ 332,000
	C-12, F-2	MA4D-B	Basswood Blvd. (2)	960' E. of FM 156 to Horseman Rd.	0.72	50%	\$ 6,048,000	\$ 3,024,000
	C-13, F-3	MA4D-B (1/2)	Basswood Blvd. (3)	Horseman Rd. to Candler Dr.	0.29	50%	\$ 1,061,000	
	B-24, C-14	MA4D	Wagley Robertson Rd. (1)	250' N. of US 81 to 525' N of Hawks Landing Rd.	0.41	50%	\$ 7,067,000	\$ 3,533,500
c	C-15	MA4D	Wagley Robertson Rd. (2)	525' N of Hawks Landing Rd.to 125' N of Hawks Landing	0.08	50%	\$ 552,000	\$ 276,000
·	C-16	MA4D (1/2)	Wagley Robertson Rd. (3)	125' N of Hawks Landing Rd. to 80' S of Darby Ln.	0.43	50%	\$ 1,531,000	\$ 765,500
	C-17, E-13	MA4D-B	Wagley Robertson Rd. (4)	Hillwood Blvd. to 440' N of Coneflower Trl.	0.63	50%	\$ 5,088,000	\$ 2,544,000
	C-18	MA4D	Wagley Robertson Rd. (5)	225' S. of Prairie Clover Trl. to Tarrant Pkwy.	0.42	100%	\$ 3,638,000	\$ 3,638,000
	C-19, E-14	MA4D	Wagley Robertson Rd. (6)	150' N of Mystic River Trl. to 700' S of Mystic River Trl.	0.16	50%	\$ 1,023,000	\$ 511,500
	C-20	MA4D-B	Harmon Rd. (1)	Keller Hicks Rd. to Existing Harmon Rd.	0.44	100%	\$ 2,986,000	\$ 2,986,000
	C-21	MA4D-B	Harmon Rd. (2)	Future Harmon Alignment to 260' N. of Golden Triangle Blvd.	0.18	50%	\$ 1,588,000	\$ 794,000
	C-22	MA4D-B	Harmon Rd. (3)	260' N. of Golden Triangle Blvd. to Future Golden Triangle Alignment	0.12	100%	\$ 825,000	\$ 825,000
	C-23	MA4D-B (1/2)	Harmon Rd. (4)	Bonds Ranch Rd. to 475' S. of Heritage Trace Pkwy.	0.74	100%	\$ 2,938,000	\$ 2,938,000
	C-24	MA4D-B	Harmon Rd. (5)	475' S. of Heritage Trace Pkwy. to Presidio Vista Dr.	0.54	100%	\$ 3,764,000	\$ 3,764,000
	C-25	P6D-B	Harmon Rd. (6)	Presidio Vista Dr. to US 287 SBFR	0.58	100%	\$ 5,040,000	\$ 5,040,000
	C-26	P6D-B	Harmon Rd. (7)	US 287 SBFR to Future N. Tarrant Pkwy.	0.17	100%	\$ 1,449,000	\$ 1,449,000
	C-27	MA4D	Harmon Rd. (8)	Future N. Tarrant Pkwy. to Horseman Rd.	0.84	100%	\$ 5,828,000	\$ 5,828,000
	C-28	M4U (1/2)	Horseman Rd.	Bailey Boswell Rd. to 600' N. of Canchim St.	0.37	100%	\$ 1,237,000	\$ 1,237,000
					Service A	rea Proje	ct Cost Subtotal	\$ 100,800,000
				Transportation Impact	Fee Stud	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA C \$ 100,825,555





# Table 4.D – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area D

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	С	ost in Service Area
	A-19, D-1	MA4D-B	Timberland Blvd. (1)	Beach St. to 425' E of Lillybrook Ln.	0.39	50%	\$ 544,917	\$	272,459
	A-20, D-2	MA4D-B	Timberland Blvd. (2)	425' E of Lillybrook Ln. to Caylor Rd.	0.30	50%	\$ 1,970,000	\$	985,000
	A-21, D-3	MA4D-B	Timberland Blvd. (3)	Caylor Rd. To Park Vista Blvd.	0.29	50%	\$ 1,571,000	\$	785,500
	D-4	MA4D-B (1/2)	Timberland Blvd. (4)	Park Vista Blvd. to 390' E of Harvest Oaks Dr.	0.52	100%	\$ 2,129,000	\$	2,129,000
	A-22, D-5	MA4D-B	Timberland Blvd. (5)	390' E of Harvest Oaks Dr. to E. City Limits	0.10	50%	\$ 695,000	\$	347,500
	D-6	M4U-B	Keller Hicks Rd. (1)	Riverside Dr. to 600' W of Ridgeview Cir.	1.03	100%	\$ 5,292,000	\$	5,292,000
	D-7	M4U-B	Keller Hicks Rd. (2)	600' W. of Ridgeview Cir. to Alta Vista Rd.	0.44	100%	\$ 1,071,577	\$	1,071,577
	D-8	M4U-B	Keller Hicks Rd. (3)	Alta Vista Rd. to Park Vista Blvd.	0.52	100%	\$ 1,304,000	\$	1,304,000
	D-9	M4U-B	Keller Hicks Rd. (4)	Park Vista Blvd. to Katy Rd.	1.00	100%	\$ 5,176,000	\$	5,176,000
	D-10	P6D (1/3)	Golden Triangle Blvd. (3)	IH-35W NBFR to Katy Rd.	3.54	100%	\$ 13,397,000	\$	13,397,000
	D-11	MA4D-B (1/2)	Kroger Dr.	Park Vista Blvd. to US 377	0.31	100%	\$ 1,478,000	\$	1,478,000
	D-12	P6D (1/3)	N. Tarrant Pkwy. (2)	IH-35W NBFR to US 377	3.48	100%	\$ 6,661,000	\$	6,661,000
	D-13	M4U-B (1/2)	Summerfields Blvd.	N Riverside Dr. to Cannonwood Dr.	0.18	100%	\$ 410,000	\$	410,000
	D-14	MA4D-B	Old Denton Rd. (2)	SH 170 EB to 190' N of Hidden Valley Dr.	0.18	100%	\$ 1,188,000	\$	1,188,000
	D-15	MA4D-B (1/2)	Old Denton Rd. (3)	90' N of Hidden Valley Dr. to 135' S of San Fernando Dr	0.17	100%	\$ 618,000	\$	618,000
	D-16	MA4D-B	Old Denton Rd. (4)	135' S of San Fernando Dr. to 325' N of Sawtimber Trl.	0.16	100%	\$ 1,071,000	\$	1,071,000
	D-17	MA4D-B (1/2)	N. Riverside Dr. (1)	Timberland Blvd. to Keller Hicks Rd.	0.20	100%	\$ 736,000	\$	736,000
	D-18	MA4D-B (1/2)	N. Riverside Dr. (2)	Keller Hicks Rd. to 410' N of Golden Triangle Blvd.	0.38	100%	\$ 1,399,000	\$	1,399,000
	D-19	MA4D-B	N. Riverside Dr. (3)	410' N of Golden Triangle Blvd. to Golden Triangle Blvd.	0.08	100%	\$ 950,000	\$	950,000
	D-20	MA4D-B	N. Riverside Dr. (4)	Dalton St. to N. Tarrant Pkwy.	0.98	100%	\$ 6,726,000	\$	6,726,000
	D-21	MA4D-B (1/2)	N. Riverside Dr. (5)	N. Tarrant Pkwy. to Summerfields Blvd.	0.71	100%	\$ 2,824,000	\$	2,824,000
D	D-22	MA4D-B (1/2)	N. Riverside Dr. (6)	Summerfields Blvd. to 710' S of Princess Victoria Ct.	0.29	100%	\$ 1,061,000	\$	1,061,000
	A-27, D-23	P6D-B	N. Beach St. (4)	SH 170 EBFR to 410' N of Saratoga Downs Way	0.39	50%	\$ 3,383,000	\$	1,691,500
	A-28, D-24	P6D (1/3)	N. Beach St. (5)	410' N of Saratoga Downs to Timberland Blvd.	0.70	50%	\$ 1,378,000	\$	689,000
	D-25	P6D (1/3)	N. Beach St. (6)	Timberland Blvd. to Keller Hicks Rd.	1.03	100%	\$ 7,287,000	\$	7,287,000
	D-26	P6D (1/3)	N. Beach St. (7)	Keller Hicks Rd. to Golden Triangle Blvd.	0.75	100%	\$ 7,861,000	\$	7,861,000
	D-27	P6D (1/3)	N. Beach St. (8)	Golden Triangle Blvd. to Vista Meadows Dr.	0.74	100%	\$ 1,456,000	\$	1,456,000
	D-28	P6D-B (2/3)	N. Beach St. (9)	Vista Meadows Dr. to Alta Vista Rd.	0.18	100%	\$ 1,393,000	\$	1,393,000
	D-29	P6D-B	N. Beach St. (10)	Alta Vista Rd. to Heritage Trace Pkwy.	0.22	100%	\$ 1,835,000	\$	1,835,000
	D-30	P6D-B	N. Beach St. (11)	Heritage Trace Pkwy. to Heritage Glen Dr.	0.47	100%	\$ 3,889,000	\$	3,889,000
	D-31	P6D-B (2/3)	N. Beach St. (12)	Heritage Glen Dr. to 155' S of Springview Ln.	0.65	100%	\$ 3,864,000	\$	3,864,000
	D-32	P6D (1/3)	N. Beach St. (13)	155' S of Springview Ln. to 380' S of Spring Mist Cv.	0.14	100%	\$ 198,000	\$	198,000
	D-33	MA4D-B	Park Vista Blvd. (2)	Timberland Blvd. to Caylor Rd.	0.18	100%	\$ 1,240,000	\$	1,240,000
	D-34	MA4D-B	Park Vista Blvd. (3)	Keller Hicks Rd. to Golden Triangle Blvd.	0.51	100%	\$ 3,663,000	\$	3,663,000
	D-35	MA4D-B	Park Vista Blvd. (4)	Golden Triangle Blvd. to Ray White Rd./Wyndrook St.	0.51	100%	\$ 4,151,000	\$	4,151,000
	D-36	MA4D-B	Ray White Rd. (1)	Wyndrook St. to 320' S of Pinellas Ave.	0.15	100%	\$ 979,000	\$	979,000
	D-37	MA4D-B	Ray White Rd. (2)	320' S of Pinellas Ave. to 230' N of Wall Price Keller Rd.	0.32	50%	\$ 2,067,000	\$	1,033,500
	D-38	MA4D-B	Ray White Rd. (3)	230' N of Wall Price Keller Rd. to Wall Price Keller Rd.	0.04	100%	\$ 284,000	\$	284,000
	D-39	MA4D-B	Ray White Rd. (4)	Wall Price Keller Rd. to 145' N of Archer Dr.	0.12	50%	\$ 763,000	\$	381,500
	D-40	MA4D-B	Ray White Rd. (5)	145' N of Archer Dr. to 170' N of Mirage Dr.	0.09	100%	\$ 616,000	\$	616,000
	D-41	MA4D-B (1/2)	Ray White Rd. (6)	Shiver Rd. to N. Tarrant Pkwy.	0.50	100%	\$ 2,283,000	\$	2,283,000
					Service A	rea Projec	et Cost Subtotal	\$	100,676,536
Transportation Impact Fee Study Cost (Per Service Area) \$									

Total Cost in SERVICE AREA D \$ 100,702,091

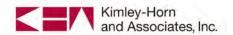




Table 4.E – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area E

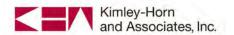
Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cos	t in Service Area
	E-1	MA4D-B	Heritage Trace Pkwy. (1)	Existing Boat Club Rd. to City Limits	1.39	100%	\$ 9,999,000	\$	9,999,000
	E-2	MA4D-B	Heritage Trace Pkwy. (2)	Old Decatur to 250' W. of Wagley Robertson Rd.	1.39	100%	\$ 10,772,000	\$	10,772,000
	E-3	M4U	Park Dr. (1)	Boat Club Rd. to Park Dr. (Right-angle turn)	1.01	100%	\$ 5,053,000	\$	5,053,000
	E-4	M4U (1/2)	Park Dr. (2)	Park Dr. (Right-angle turn) to 815' E. of Park Dr.	0.15	100%	\$ 351,000	\$	351,000
	E-5	M4U	Park Dr. (3)	815' E. of Park Dr. to Old Decatur Rd.	0.72	100%	\$ 3,699,000	\$	3,699,000
	E-6	M4U	Robertson Rd.	680' W. of Lake Country Dr. to Boat Club Rd.	0.87	100%	\$ 4,155,000	\$	4,155,000
	E-7	M4U	Lake Country Dr. (1)	Western Lakes Dr. to Eagle Ranch Blvd.	0.57	100%	\$ 2,817,000	\$	2,817,000
	E-8	M4U	Lake Country Dr. (2)	Eagle Ranch Blvd. to Robertson Rd.	0.28	100%	\$ 1,274,000	\$	1,274,000
E	E-9, G-1	M4U-B	W J Boaz Rd.	Boat Club Rd. to Old Decatur Rd.	2.05	50%	\$ 11,351,000	\$	5,675,500
E	E-10	MA4D-B	Boat Club Rd.	Bonds Ranch Rd. to Park Dr.	2.68	100%	\$ 21,254,000	\$	21,254,000
	E-11	M4U-B	Old Decatur Rd. (1)	285' S. of Milo Dr. to 200' S. of Millstone Trl.	0.17	100%	\$ 718,000	\$	718,000
	E-12	M4U-B	Willow Springs Rd.	1680' S. of Hicks Rd. to Future Heritage Trace Pkwy.	1.54	100%	\$ 8,803,000	\$	8,803,000
	C-17, E-13	MA4D-B	Wagley Robertson Rd. (4)	Hillwood Blvd. to 440' N of Coneflower Trl.	0.63	50%	\$ 5,088,000	\$	2,544,000
	C-19, E-14	MA4D	Wagley Robertson Rd. (6)	150' N of Mystic River Trl. to 700' S of Mystic River Trl.	0.16	50%	\$ 1,023,000	\$	511,500
	E-15	MA4D-B	Bailey Boswell Rd. (1)	Boat Club Rd. to 165' E. of Axis Deer Run	0.38	50%	\$ 2,448,000	\$	1,224,000
	E-16	MA4D-B	Bailey Boswell Rd. (2)	40' W. of Bowman Roberts Rd. to 30' W. of Old Decatur Rd.	1.52	100%	\$ 10,008,000	\$	10,008,000
				_	Service A	rea Projec	ct Cost Subtotal	\$	88,858,000
	Transportation Impact Fee Study Cost (Per Service Area)								

Total Cost in SERVICE AREA E \$ 88,883,555

Table 4.F – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area F

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area		
	C-11, F-1	MA4D-B (1/2)	Basswood Blvd. (1)	Blue Mound Rd. (FM 156) to 960' E. of FM 156	0.18	50%	\$ 664,000	\$ 332,000		
	C-12, F-2	MA4D-B	Basswood Blvd. (2)	960' E. of FM 156 to Horseman Rd.	0.72	50%	\$ 6,048,000	\$ 3,024,000		
	C-13, F-3	MA4D-B (1/2)	Basswood Blvd. (3)	Horseman Rd. to Candler Dr.	0.29	50%	\$ 1,061,000	\$ 530,500		
	F-4	P6D	Western Center Blvd. (1)	Blue Mound Rd. (FM 156) to 410' E. of FM 156	0.08	100%	\$ 636,000	\$ 636,000		
	F-5	P6D (1/3)	Western Center Blvd. (2)	410' E. of FM 156 to Mark IV Pkwy	0.50	100%	\$ 974,000	\$ 974,000		
	F-6	P6D (1/6)	Western Center Blvd. (3)	Sandshell Blvd. to Riverside Dr.	0.27	100%	\$ 304,000	\$ 304,000		
	F-7	P6D (1/3)	Western Center Blvd. (4)	Riverside Dr. to 980' E. of Riverside Dr.	0.19	100%	\$ 364,000	\$ 364,000		
	F-8	P6D (1/3)	Western Center Blvd. (5)	605' W. of Bayberry Dr. to Beach St.	0.62	100%	\$ 1,208,000	\$ 1,208,000		
	F-9	MA4D-B	Cantrell Sansom Rd. (1)	455' W of Nafex Way to 145' W of Maiden Ln.	0.21	100%	\$ 1,748,000	\$ 1,748,000		
	F-10	MA4D-B (1/2)	Cantrell Sansom Rd. (2)	145' W of Maiden Ln. to 190 E. of Deerfoot Trl.	0.21	100%	\$ 760,000	\$ 760,000		
	F-11	MA4D-B (1/2)	Cantrell Sansom Rd. (3)	195' W. of Lionfish Way to Mark IV Pkwy.	0.13	100%	\$ 481,000	\$ 481,000		
	F-12	MA4D-B	Cantrell Sansom Rd. (4)	Mark IV Pkwy. to Old Denton Rd.	0.32	100%	\$ 1,941,000	\$ 1,941,000		
	F-13	MA4D-B	Cantrell Sansom Rd. (5)	Old Denton Rd. to Future IH-35W SBFR	0.15	100%	\$ 1,059,000	\$ 1,059,000		
F	F-14	M4U	Northeast Pkwy.	Superior Pkwy. to Mark IV Pkwy.	0.20	100%	\$ 1,232,000	\$ 1,232,000		
r	F-15	MA4D-B (1/2)	Meacham Blvd. (1)	315' E. of Blue Mound Rd. to RR Bridge	0.46	100%	\$ 1,693,000	\$ 1,693,000		
	F-16	P6D-B (1/2)	Meacham Blvd. (2)	Deen Rd. to 590' W of Gemini Pl.	0.51	100%	\$ 2,520,000	\$ 2,520,000		
	F-17	P6D (1/3)	Meacham Blvd. (3)	Little Fossil Creek Bridge to Beach St.	0.89	100%	\$ 1,741,000	\$ 1,741,000		
	F-18	MA4D-B	Long Ave Bridge	700' W. of UP RR to Half Moon Dr.	0.32	100%	\$ 5,430,000	\$ 5,430,000		
	F-19	MA4D-B	Robert W. Downing Dr. (1)	Basswood Blvd. to 1,245' N. of Lou Menk Dr.	0.15	100%	\$ 1,045,000	\$ 1,045,000		
	F-20	MA4D-B (1/2)	Robert W. Downing Dr. (2)	1,245' N. of Lou Menk Dr. to 230' N. of Lou Menk Dr.	0.19	100%	\$ 702,000	\$ 702,000		
	F-21	M4U	Lone Star Blvd.	Existing Dead End to 800' N. of Meacham Blvd.	0.68	100%	\$ 4,211,000	\$ 4,211,000		
	F-22	MA4D-B (1/2)	Mark IV Pkwy.	Cantrell Sansom Rd. to Loop 820 WBFR	0.52	100%	\$ 2,144,000	\$ 2,144,000		
	F-23	M4U (1/2)	Old Denton Rd.	Staybridge Pl. to Cantrell Sansom Rd.	0.61	100%	\$ 1,625,000	\$ 1,625,000		
	F-24	M4U	Sylvania Ave.	150' of Melody Hills Dr. to Quorum Dr.	0.35	100%	\$ 1,580,000	\$ 1,580,000		
	F-25	MA4D-B	Riverside Dr. Bridge	Stone Creek Pkwy. to Existing Riverside Dr.	0.19	100%	\$ 6,000,000	\$ 6,000,000		
	F-26	P6D (1/3)	N. Beach St. (14)	Fossil Creek to Sandshell Blvd.	0.56	100%	\$ 1,104,000	\$ 1,104,000		
		•			Service A	rea Projec	ct Cost Subtotal	\$ 44,388,500		
	Transportation Impact Fee Study Cost (Per Service Area) \$									

Total Cost in SERVICE AREA F \$ 44,414,055





# Table 4.G – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area G

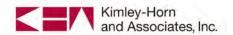
Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area		
	E-9, G-1	M4U-B	W J Boaz Rd.	Boat Club Rd. to Old Decatur Rd.	2.05	50%	\$ 11,351,000	\$ 5,675,500		
	G-2	M4U	Cromwell Marine Creek Rd. (1)	Ten Mile Bridge Rd. to N. City Limits	0.74	100%	\$ 3,771,000	\$ 3,771,000		
	G-3	MA4D-B	Cromwell Marine Creek Rd. (2)	Boat Club Rd. to Chesterfield Dr.	1.21	100%	\$ 8,747,000	\$ 8,747,000		
	G-4	MA4D-B	Cromwell Marine Creek Rd. (3)	360' E. of Crystal Lake Dr. to Stonewater Bend Tr.	0.20	100%	\$ 1,605,000	\$ 1,605,000		
	G-5	MA4D-B	Cromwell Marine Creek Rd. (4)	Stonewater Bend Tr. to Marine Creek Pkwy.	0.58	100%	\$ 4,521,000	\$ 4,521,000		
	G-6	MA4D-B	Longhorn Rd.	Marine Creek Pkwy. to Old Decatur Rd.	0.24	100%	\$ 1,563,000	\$ 1,563,000		
	G-7	M4U-B	Ten Mile Bridge Rd. (1)	W. City Limits to Boat Club Rd.	1.09	100%	\$ 5,600,000	\$ 5,600,000		
	G-8	M4U-B	Ten Mile Bridge Rd. (2)	Boat Club Rd. to Bowman Roberts Rd.	0.55	100%	\$ 2,842,000	\$ 2,842,000		
	G-9	M4U-B	Ten Mile Bridge Rd. (3)	Westgate Dr. to Huffines Blvd.	0.41	100%	\$ 1,916,000	\$ 1,916,000		
G	G-10	M4U	Hodgkins Rd.	Ten Mile Bridge Rd. to 105' S. of Hatch Rd.	1.03	100%	\$ 5,141,000	\$ 5,141,000		
G	G-11	M4U-B (1/2)	Huffines Blvd. (1)	330' S. of Cromwell Marine Creek Rd. to 135' S. of Sunrise Lake Rd.	0.51	100%	\$ 1,422,000	\$ 1,422,000		
	G-12	M4U-B (1/2)	Huffines Blvd. (2)	Texas Shiner Dr. to Sea Bass Dr.	0.33	100%	\$ 775,000	\$ 775,000		
	G-13	MA4D	Marine Creek Pkwy. (1)	Old Decatur to Existing Cromwell Marine Creek Rd.	0.34	100%	\$ 2,246,000	\$ 2,246,000		
	G-14	MA4D-B	Marine Creek Pkwy. (2)	Existing Cromwell Marine Creek Rd. to 420' N of Grayson Ridge Dr.	0.77	100%	\$ 5,210,000	\$ 5,210,000		
	G-15	MA4D	Marine Creek Pkwy. (3)	Angle Ave. to Azle Ave.	0.98	100%	\$ 7,154,000	\$ 7,154,000		
	G-16	M4U (1/2)	Old Decatur Rd. (2)	River Rock Blvd. to IH-820 WBFR	0.30	100%	\$ 672,000	\$ 672,000		
	G-17	M4U	Old Decatur Rd. (3)	IH-820 EBFR to Angle Ave.	0.80	100%	\$ 3,880,000	\$ 3,880,000		
	G-18	M4U	Delfin St	345' S. of IH-820 EBFR to Future Marine Creek Pkwy	0.70	100%	\$ 3,586,000	\$ 3,586,000		
		•		_	Service A	rea Projec	ct Cost Subtotal	\$ 66,326,500		
	Transportation Impact Fee Study Cost (Per Service Area)									

Total Cost in SERVICE AREA G \$ 66,352,055

# Table 4.L – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area L

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	L-1	MA4D-B	E 1st St. (1)	N. Beach St. to 825' W of Oakland Blvd.	1.53	100%	\$ 3,315,000	\$ 3,315,000
т .	L-2	MA4D-B	Randol Mill Rd. (1)	500' NE of Lake Havasu Tr. to 630' W of Woodhaven Blvd.	0.77	100%	\$ 5,222,000	\$ 5,222,000
L					Service A	rea Projec	t Cost Subtotal	\$ 8,537,000
				Transportation Impact	Fee Study	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA L \$ 8,562,555





# Table 4.M – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area M

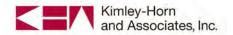
Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	M-1	MA4D-B	Precinct Line Rd. (1)	Trinity Railway Express (City Limits) to Trinity Blvd.	0.34	100%	\$ 962,000	\$ 962,000
	M-2	MA4D-B	Precinct Line Rd. (2)	Trinity Blvd. to Existing Randol Mill Rd.	1.74	100%	\$ 10,837,000	\$ 10,837,000
	M-3	MA4D-B	Precinct Line Rd. (3)	Existing Randol Mill Rd. to Future Randol Mill Rd.	0.07	100%	\$ 500,000	\$ 500,000
	M-4	M4U	Norwood Dr. (1)	65' S. of SH 10 to 750' N of Trinity Blvd.	0.31	100%	\$ 1,754,000	\$ 1,754,000
	M-5	M4U (1/2)	Norwood Dr. (2)	750' N of Trinity Blvd. to Trinity Blvd.	0.14	100%	\$ 323,000	\$ 323,000
	M-6	M4U	Sandy Ln. (1)	Randol Mill Rd. to Winters St.	0.13	100%	\$ 1,051,000	\$ 1,051,000
	M-7	M4U-B	Sandy Ln. (2)	Winters St. to John T. White Rd.	0.92	100%	\$ 4,546,000	\$ 4,546,000
	M-8	M4U-B	Sandy Ln. (3)	John T. White Rd. to IH-30 EB	0.45	100%	\$ 2,773,000	\$ 2,773,000
	M-9	MA4D-B	Cooks Ln. (1)	Future Randol Mill Rd. to Existing Cooks Ln.	0.59	100%	\$ 4,293,000	\$ 4,293,000
	M-10	MA4D-B	Cooks Ln. (2)	Future Cooks Ln. Alignment to Lowery Rd.	0.12	100%	\$ 788,000	\$ 788,000
	M-11	MA4D-B (1/2)	Cooks Ln. (3)	Lowery Rd. to 545' N. of Meadow View Tr.	0.18	100%	\$ 357,000	\$ 357,000
	M-12	MA4D-B (1/2)	Cooks Ln. (4)	545' N. of Meadow View Tr. To 400' N of John T. White Rd.	0.25	100%	\$ 906,000	\$ 906,000
	M-13	M4U-B	Randol Mill Rd. (2)	Stone View Circle to 125' W. of Flyaway Ln.	0.79	100%	\$ 4,317,000	\$ 4,317,000
	M-14	M4U-B (1/2)	Randol Mill Rd. (3)	125' W. of Flyaway Ln. to 45' E. of Goldeneye Ln.	0.10	100%	\$ 243,000	\$ 243,000
M	M-15	M4U-B	Randol Mill Rd. (4)	45' E. of Goldeneye Ln. to 410' E of Existing Cooks Ln.	0.69	100%	\$ 3,862,000	\$ 3,862,000
M	M-16	M4U-B	Randol Mill Rd. (5)	410' E of Existing Cooks Ln. to Future Precinct Line Rd.	0.35	100%	\$ 1,752,000	\$ 1,752,000
	M-17	M4U-B	Randol Mill Rd. (6)	Future Precinct Line Rd. to Existing Randol Mill Rd.	0.35	100%	\$ 1,757,000	\$ 1,757,000
	M-18	M4U-B	Randol Mill Rd. (7)	Future Randol Mill Alignment to Mill Water Dr.	0.48	100%	\$ 2,253,000	\$ 2,253,000
	M-19	M4U-B (1/2)	Randol Mill Rd. (8)	Mill Water Dr. to Racquet Club Dr.	0.21	100%	\$ 483,000	\$ 483,000
	M-20	M4U-B	Randol Mill Rd. (9)	John T. White Rd. to 165' SE of Winding Ln.	0.19	100%	\$ 891,000	\$ 891,000
	M-21	M4U-B (1/2)	Randol Mill Rd. Bridge	145' SE of Cottonwood Village Dr. to IH-30 EB	0.11	100%	\$ 1,265,000	\$ 1,265,000
	M-22	M4U	Anderson Blvd. (1)	1270' W of Williams Rd. to 1055' W of Williams Rd.	0.04	100%	\$ 196,000	\$ 196,000
	M-23	M4U	Anderson Blvd. (2)	1055' W of Williams Rd. to Sandy Ln.	0.48	100%	\$ 2,176,000	\$ 2,176,000
	M-24	M4U	House Anderson Rd. (4)	N City Limits to S City Limits	0.70	100%	\$ 3,573,000	\$ 3,573,000
	M-25	MA4D-B	Trinity Blvd. (1)	IH-820 NB to Precinct Line Rd.	1.67	100%	\$ 11,532,000	\$ 11,532,000
	M-26	MA4D-B	Trinity Blvd. (2)	Precinct Line Rd. to Norwood Dr.	0.86	100%	\$ 6,570,000	\$ 6,570,000
	M-27	MA4D-B	Trinity Blvd. (3)	Norwood Dr. to Bell Spur	0.58	100%	\$ 4,386,000	\$ 4,386,000
	M-28	P6D-B	Trinity Blvd. (4)	Bell Spur to 1110' W of Greenbelt Rd.	0.56	100%	\$ 5,247,000	\$ 5,247,000
					Service A	rea Projec	ct Cost Subtotal	\$ 79,593,000
				Transportation Impac	t Fee Stud	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA M \$ 79,618,555

Table 4.N – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area N

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	N-1	M4U-B	S. Pipeline Rd. (1)	Raider Dr. to House Anderson Rd	0.69	100%	\$ 3,465,000	\$ 3,465,000
	N-2	M4U-B	S. Pipeline Rd. (2)	House Anderson Rd. to E. City Limits	0.33	100%	\$ 1,546,000	\$ 1,546,000
	N-3	M4U-B	S. Pipeline Rd. (3)	W. City Limits to FM 157	0.32	100%	\$ 1,449,000	\$ 1,449,000
	N-4	M4U-B	S. Pipeline Rd. (4)	FM 157 to Euless South Main St.	1.01	100%	\$ 5,609,000	\$ 5,609,000
	N-5	M4U-B	S. Pipeline Rd. (5)	Euless South Main St. to Summerbrook Dr.	0.46	100%	\$ 2,142,000	\$ 2,142,000
	N-6	M4U-B (1/2)	S. Pipeline Rd. (6)	Summerbrook Dr. to Boulder Park Dr.	0.14	100%	\$ 728,000	\$ 728,000
	N-7	M4U-B	S. Pipeline Rd. (7)	Boulder Park Dr. to American Blvd.	0.08	100%	\$ 370,000	\$ 370,000
	N-8	M4U (1/2)	House Anderson Rd. (1)	S. Pipeline to Trinity Blvd.	0.27	100%	\$ 618,000	\$ 618,000
N	N-9	M4U	House Anderson Rd. (2)	Trinity Blvd. to 420' N of Trinity Railway Express	0.43	100%	\$ 1,953,000	\$ 1,953,000
	N-10	M4U	House Anderson Rd. (3)	420' N of Trinity Railway Express to 100' S of TRE	0.10	100%	\$ 838,000	\$ 838,000
	N-11	M4U-B	Euless South Main St	S. Pipeline Rd. to Trinity Blvd.	0.19	100%	\$ 891,000	\$ 891,000
	N-12	MA4D-B	FAA Blvd. (1)	SH 360 NBFR to Existing FAA Blvd. Dead End	0.33	100%	\$ 2,291,000	\$ 2,291,000
	N-13	MA4D-B (1/2)	FAA Blvd. (2)	Existing FAA Blvd. Dead End to 620' W of Amon Carter Blvd.	0.22	100%	\$ 788,000	\$ 788,000
	N-14	MA4D-B	Centreport Dr.	FAA Blvd. to Sovereign Rd.	0.31	100%	\$ 2,155,000	\$ 2,155,000
	N-15	P6D (1/3)	Trinity Blvd. (5)	595' N of Trinity Railway Express to E. City Limits	0.88	100%	\$ 1,895,000	\$ 1,895,000
					Service A	rea Proje	ct Cost Subtotal	\$ 26,738,000
				Transportation Impac	Fee Stud	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA N \$ 26,763,555





# Table 4.O – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area O

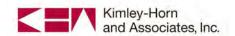
Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	t	Cost in Service Area
	O-1	M4U-B (1/2)	Sandy Ln. (4)	IH-30 EB to Ederville Rd.	0.16	100%	\$ 792,00	0 \$	792,000
	O-2	M4U-B	Randol Mill Rd. (10)	IH-30 EB to 120' NW of Mill Valley Cir.	0.08	100%	\$ 822,000	0 \$	822,000
	O-3	MA4D-B	Cooks Ln. (5)	Brentwood Stair Rd. to Whitney Ln.	0.75	100%	\$ 5,372,000	0 \$	5,372,000
О	0-4	MA4D-B (1/2)	Cooks Ln. (6)	Whitney Ln. to S Maegen Cir.	0.26	100%	\$ 855,000	0 \$	855,000
	O-5	MA4D-B	Cooks Ln. (7)	S Maegen Cir. To Dottie Lynn Pkwy.	0.27	100%	\$ 1,853,00	0 \$	1,853,000
					Service A	rea Projec	t Cost Subtota	ıl \$	9,694,000
				Transportation Impact	Fee Stud	y Cost (Pe	r Service Area	) \$	25,555

Total Cost in SERVICE AREA O \$ 9,719,555

Table 4.S – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area S

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	S-1	MA4D-B	Silver Creek Rd. (1)	W. City Limits to Existing Silver Creek	0.52	100%	\$ 3,825,000	\$ 3,825,000
	S-2	MA4D-B	Silver Creek Rd. (2)	570' N of Heron Dr. to Brewer HS Entrance	1.72	100%	\$ 12,251,000	\$ 12,251,000
	S-3	MA4D-B	Silver Creek Rd. (3)	Brewer HS Entrance to Loop 820 W SBFR	0.31	100%	\$ 1,542,173	\$ 1,542,173
	S-4	MA4D-B	Academy Blvd. (1)	Silver Creek Rd. to 130' N. of Sparrow Hawk Ln.	0.57	100%	\$ 4,131,000	\$ 4,131,000
	S-5	MA4D-B	Academy Blvd. (2)	75' S. of Caravelle Ct. to Future Amber Ridge Dr.	0.36	100%	\$ 2,493,000	\$ 2,493,000
	S-6	P6D-B	White Settlement Rd. (1)	W. City Limits to Silver Ridge Blvd.	1.14	50%	\$ 11,078,000	\$ 5,539,000
	S-7	P6D-B	White Settlement Rd. (2)	Silver Ridge Blvd. to 430' W. of Yuchi Trl	0.17	50%	\$ 1,388,000	\$ 694,000
	S-8	P6D-B	White Settlement Rd. (3)	430' W. of Yuchi Trl to 300' W. of Chapel Creek Blvd.	0.69	100%	\$ 5,949,000	\$ 5,949,000
	S-9	P6D (1/3)	White Settlement Rd. (4)	300' W. of Chapel Creek to Academy Blvd.	0.56	100%	\$ 1,100,000	\$ 1,100,000
	S-10	P6D (1/3)	White Settlement Rd. (5)	Academy Blvd. to Clifford St.	0.50	100%	\$ 986,000	\$ 986,000
	S-11	M4U	Silver Ridge Blvd.	135' S. of Broken Arrow Tr. to 120' N of Fandor St.	0.51	100%	\$ 2,677,000	\$ 2,677,000
	S-12	MA4D-B	Westpoint Blvd. (1)	W. City Limits to Basset Locke Dr.	0.65	100%	\$ 4,695,000	\$ 4,695,000
	S-13	MA4D-B (1/2)	Westpoint Blvd. (2)	Basset Locke Dr. to American Flyer Blvd.	0.30	100%	\$ 1,085,000	\$ 1,085,000
s	S-14	MA4D-B	Westpoint Blvd. (3)	Academy Blvd. to Existing Alemeda St.	0.41	100%	\$ 2,646,000	\$ 2,646,000
8	S-15	MA4D	Westpoint Blvd. (4)	Existing Alemeda St. to Loop 820 W SBFR	0.28	100%	\$ 1,755,000	\$ 1,755,000
	S-16	M4U-B	Alemeda St. (1)	Academy Blvd. to 525' N of Westpoint Blvd.	0.33	100%	\$ 1,567,000	\$ 1,567,000
	S-17	M4U	Alemeda St. (2)	525' N of Westpoint Blvd. to Future Academy Blvd.	0.62	100%	\$ 3,215,000	\$ 3,215,000
	S-18	M4U-B	Alemeda St. (3)	IH-30 WBFR to IH-30	0.12	100%	\$ 1,235,000	\$ 1,235,000
	S-19	M4U	N-S Minor Arterial	Westpoint Blvd. to Old Weatherford Rd.	0.92	100%	\$ 4,657,000	\$ 4,657,000
	S-20	M4U	Old Weatherford Rd. (1)	645' E of County Rd 1029 to Chapel Creek Blvd.	1.17	100%	\$ 6,546,000	\$ 6,546,000
	S-21	M4U (1/2)	Amber Ridge Dr. (1)	Chapel Creek Blvd. to Wind Star Way	0.26	100%	\$ 601,000	\$ 601,000
	S-22	M4U	Amber Ridge Dr. (2)	Wind Star Way to Future Academy Blvd	0.24	100%	\$ 1,143,000	\$ 1,143,000
	S-23	M4U-B	Chapin Rd. (1)	W. City Limits to 1,800' E. of W. City Limits	0.34	100%	\$ 1,991,000	\$ 1,991,000
	S-24	M4U-B	Chapin Rd. (2)	1,800' E. of W. City Limits to 470' W of Wakecrest Dr.	0.30	100%	\$ 1,930,000	\$ 1,930,000
	S-25	MA4D	Academy Blvd. (3)	Future Amber Ridge to IH-30 WBFR	0.51	100%	\$ 3,632,000	\$ 3,632,000
	S-26	MA4D	Chapel Creek Blvd	Chapin Rd. to IH-30	0.17	100%	\$ 967,698	\$ 967,698
					Service A	rea Projec	ct Cost Subtotal	\$ 78,852,871
				Transportation Impa	ct Fee Stud	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA S \$ 78,878,426





## Table 4.T – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area T

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	T-1	MA4D	Chapin Rd. (3)	Camp Bowie West Blvd. to Longvue Ave.	0.61	100%	\$ 4,682,000	\$ 4,682,000
	T-2	M4U-B	Alemeda St. (4)	IH-30 EB to IH-30 EBFR	0.07	100%	\$ 676,000	\$ 676,000
	T-3	M4U-B	Alemeda St. (5)	Camp Bowie West Blvd. to Chapin Rd.	0.44	100%	\$ 2,464,000	\$ 2,464,000
Tr	T-4	M4U-B	Chapin Rd. (4)	Longvue Ave. to Chapin Curve	0.51	100%	\$ 2,998,000	\$ 2,998,000
1	T-5	M4U-B	Chapin Rd. (5)	Chapin Curve to Alemeda St.	0.18	100%	\$ 912,000	\$ 912,000
	T-6	M4U-B	Chapin Rd. (6)	Alemeda St. to IH-820 NBFR	0.30	100%	\$ 1,809,000	\$ 1,809,000
					Service A	rea Projec	t Cost Subtotal	\$ 13,541,000
				Transportation Impact	Fee Study	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA T \$ 13,566,555

# Table 4.U – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area U

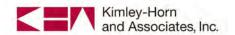
Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	U-1	M4U-B	Old Weatherford Rd. (1)	W. City Limits to 1800' W of Future Walsh Ranch Pkwy.	0.38	100%	\$ 1,800,000	\$ 1,800,000
	U-2	M4U-B	Old Weatherford Rd. (2)	1800' W of Future Walsh Ranch Pkwy. to Future Walsh Ranch Pkwy.	0.34	100%	\$ 1,691,000	\$ 1,691,000
	U-3	P6D-B	Walsh Ranch Pkwy. (1)	North City Limits to Future Old Weatherford Rd.	0.55	100%	\$ 5,448,000	\$ 5,448,000
	U-4	P6D-B	Walsh Ranch Pkwy. (2)	Future Old Weatherford to Future Walsh Ranch Minor #4	1.27	100%	\$ 11,976,000	\$ 11,976,000
	U-5	P6D	Walsh Ranch Pkwy. (3)	Future Walsh Ranch Minor #4 to IH-30 WBFR	0.22	100%	\$ 1,882,000	\$ 1,882,000
	U-6	P6D-B	Walsh Ranch Pkwy. (4)	IH-30 WBFR to Walsh Ranch Major #1	1.26	100%	\$ 15,859,000	\$ 15,859,000
	U-7	P6D	Walsh Ranch Pkwy. (5)	Walsh Ranch Major #1 to SW City Limits	2.00	100%	\$ 18,885,000	\$ 18,885,000
	U-8	M4U-B	Walsh Ranch Minor #4	Future Walsh Ranch Pkwy. to Walsh Ranch Minor #1	1.15	100%	\$ 6,206,000	\$ 6,206,000
	U-9	M4U	Walsh Ranch Minor #1 (1)	W City Limits to Walsh Ranch Major #1	1.72	100%	\$ 8,955,000	\$ 8,955,000
	U-10	M4U	Walsh Ranch Minor #1 (2)	Walsh Ranch Major #1 to City Limits	1.33	100%	\$ 8,716,000	\$ 8,716,000
U	U-11	M4U	Walsh Ranch Minor #1 (3)	IH-30 EBFR to Walsh Ranch Minor #4	0.27	100%	\$ 2,762,000	\$ 2,762,000
	U-12	M4U-B	Walsh Ranch Minor #1 (4)	Walsh Ranch Minor #4 to N City Limits	0.86	100%	\$ 4,528,000	\$ 4,528,000
	U-13	MA4D-B	Walsh Ranch Major #1 (1)	W City Limits to Future Walsh Ranch Pkwy.	0.72	100%	\$ 5,632,000	\$ 5,632,000
	U-14	MA4D-B	Walsh Ranch Major #1 (2)	Future Walsh Ranch Pkwy. to Walsh Ranch Minor #1	1.58	100%	\$ 12,421,000	\$ 12,421,000
	U-15	MA4D-B	Walsh Ranch Major #1 (3)	Walsh Ranch Minor #1 to RR tracks	0.70	100%	\$ 5,912,000	\$ 5,912,000
	U-16	M4U	Walsh Ranch Minor #3	W City Limits to IH-30/20 Intersection	1.09	100%	\$ 6,118,000	\$ 6,118,000
	U-17	M4U-B	Walsh Ranch Minor #2 (1)	Old Weatherford Rd. to IH-20 WBFR	1.24	100%	\$ 7,064,000	\$ 7,064,000
	U-18	M4U-B	Walsh Ranch Minor #2 (2)	IH-20 WBFR to S City Limits	0.66	100%	\$ 4,997,000	\$ 4,997,000
	U-19	MA4D-B	Westpoint Blvd. (5)	W. City Limits to E. City Limits	0.52	100%	\$ 3,780,000	\$ 3,780,000
					Service A	rea Projec	t Cost Subtotal	\$ 134,632,000
				Transportation Impact	Fee Stud	y Cost (Pe	r Service Area)	\$ 10,000

Total Cost in SERVICE AREA U \$ 134,642,000

## Table 4.W – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area W

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area		Project ost	Cos	t in Service Area
	W-1	M4U-B	Dutch Branch Rd.	Oakmont Trail to 45' E of RR	0.20	100%	\$ 1	,182,000	\$	1,182,000
	W-2	M4U	Harris Pwky.	Dutch Branch Rd. to Dirks Rd.	0.49	100%	\$ 1	,256,097	\$	1,256,097
	W-3	P6D (1/3)	Granbury Rd. (1)	Dan Danciger Rd. to Hulen St.	0.61	100%	\$ 1	,191,000	\$	1,191,000
w	W-4	M4U	Lakeside Dr.	Clear Fork Trinity River to Bryant Irvin Rd.	1.38	100%	\$ 6	5,634,000	\$	6,634,000
**	W-5, Y-1	P6D	Dirks Rd. (1)	Bryant Irvin Rd. to Harris Pkwy.	0.52	50%	\$ 1	,797,748	\$	898,874
	W-6, Y-2	P6D	Dirks Rd. (2)	Harris Pkwy. to Granbury Rd.	0.58	50%	\$ 2	2,479,747	\$	1,239,874
		•			Service A	rea Projec	et Cost S	Subtotal	\$	12,401,845
				Transportation Impact	Fee Stud	v Cost (Pe	r Servic	e Area)	\$	25,555

Total Cost in SERVICE AREA W \$ 12,427,400

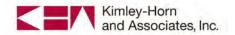




# Table 4.X – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area X

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	X-1	P6D (1/3)	Seminary Dr. (1)	Carter Park Dr. to Campus Dr.	0.62	100%	\$ 1,573,000	\$ 1,573,000
	X-2	P6D (1/3)	Seminary Dr. (2)	Campus Dr. to Old Mansfield Rd.	0.48	100%	\$ 1,256,000	\$ 1,256,000
	X-3	M4U-B	Oak Grove Rd. (1)	Oak Grove Rd. to Oak Grove Rd / Campus	0.32	100%	\$ 1,497,000	\$ 1,497,000
	X-4	MA4D	Altamesa Blvd. (1)	Oak Grove Rd./Campus Dr. to Wichita St.	1.31	100%	\$ 9,423,000	\$ 9,423,000
	X-5	MA4D	Altamesa Blvd. (2)	Lana Circle to Forest Hill Dr.	0.58	100%	\$ 4,083,000	\$ 4,083,000
	X-6	M4U	Joel East Rd.	Oak Grove Rd. to Wichita St.	1.10	100%	\$ 5,473,000	\$ 5,473,000
	Z-1, X-7	MA4D	Everman Pkwy. (1)	Butterwick St. to Cameron Hill	0.56	50%	\$ 4,769,000	\$ 2,384,500
	Z-2, X-8	MA4D (1/2)	Everman Pkwy. (2)	Cameron Hill to 320' E. of Sheridan Rd.	0.29	50%	\$ 1,026,000	\$ 513,000
	X-9	MA4D-B (1/2)	Hemphill St. (1)	Sunderland Ln. to 130' S of Kielder Cir.	0.39	100%	\$ 1,413,000	\$ 1,413,000
	X-10	MA4D-B	Hemphill St. (2)	130' S of Kielder Cir. to Sycamore School Rd.	0.40	100%	\$ 2,732,000	\$ 2,732,000
x	X-11	MA4D-B (1/2)	Hemphill St. (3)	360' S of Sycamore School Rd. to Rosedale Springs Ln.	0.41	100%	\$ 1,509,000	\$ 1,509,000
Λ	X-12	MA4D-B	Hemphill St. (4)	Rosedale Springs Ln. to Everman Pkwy.	0.15	100%	\$ 1,059,000	\$ 1,059,000
	X-13	MA4D-B (1/2)	Oak Grove Rd. (2)	Altamesa Blvd. to RR tracks	0.19	100%	\$ 871,000	\$ 871,000
	X-14	MA4D-B	Oak Grove Rd. (3)	RR tracks to Everman Pkwy.	1.58	100%	\$ 11,541,000	\$ 11,541,000
	X-15	MA4D	Wichita St. (1)	340' N of Altamesa Blvd. to Joel East Rd.	0.20	100%	\$ 1,250,000	\$ 1,250,000
	X-16	MA4D	Wichita St. (2)	Joel East Rd. to 130' N of Buie Dr.	0.18	100%	\$ 1,107,000	\$ 1,107,000
	X-17	MA4D-B	Forest Hill Dr. (1)	Lon Stevenson Rd. to S City Limits	0.72	100%	\$ 4,723,000	\$ 4,723,000
	X-18	M4U	Anglin Dr.	Lon Stevenson Rd. to Enon Rd.	1.00	100%	\$ 5,399,000	\$ 5,399,000
	X-19	M4U	Dick Price Rd.	N City Limits to S City Limits	0.48	100%	\$ 2,194,000	\$ 2,194,000
	X-20	M4U	Enon Rd.	W. City Limits to Anglin Dr.	0.50	100%	\$ 2,261,000	\$ 2,261,000
				_	Service A	rea Projec	ct Cost Subtotal	\$ 62,261,500
				Transportation Impact	Fee Stud	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA X \$ 62,287,055

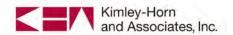




# Table 4.Y – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area Y

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	W-5, Y-1	P6D	Dirks Rd. (1)	Bryant Irvin Rd. to Harris Pkwy.	0.52	50%	\$ 1,797,748	\$ 898,874
	W-6, Y-2	P6D	Dirks Rd. (2)	Harris Pkwy. to South Orient RR	0.35	50%	\$ 2,479,747	\$ 1,239,874
	Y-3	MA4D-B	Columbus Trl. (1)	Future Bryant Irvin to South Orient RR	0.17	100%	\$ 1,331,000	\$ 1,331,000
	Y-4	MA4D-B	Columbus Trl. (2)	South Orient RR to future Brewer Blvd.	0.16	100%	\$ 1,234,000	\$ 1,234,000
	Y-5	MA4D-B	Sycamore School Rd. (1)	Future Brewer Blvd. to future SH 121	0.19	100%	\$ 1,262,000	\$ 1,262,000
	Y-6	P6D (1/3)	Sycamore School Rd. (2)	Future SH 121 to Summer Creek Dr.	0.33	100%	\$ 653,000	\$ 653,000
	Y-7	MA4D	Sycamore School Rd. (3)	Summer Creek Dr. to Creek Meadow Dr.	0.12	100%	\$ 130,679	\$ 130,679
	Y-8	MA4D-B (1/2)	Risinger Rd. (1)	760' E of McCart Ave. to Poynter St.	0.28	100%	\$ 1,033,000	\$ 1,033,000
	Y-9	MA4D-B	Risinger Rd. (2)	Poynter St. to existing Risinger Rd. Dead End	0.39	100%	\$ 2,534,000	\$ 2,534,000
	Y-10	MA4D-B	Risinger Rd. (3)	Existing Risinger Rd. Dead End to FM 731	0.45	100%	\$ 3,260,000	\$ 3,260,000
	Y-11	MA4D	McPherson Blvd. (1)	FM 1902 to future SH 121	1.08	100%	\$ 1,134,475	\$ 1,134,475
	Y-12	MA4D-B (1/2)	McPherson Blvd. (2)	Summer Creek Dr. to Willow Branch Way	0.43	100%	\$ 1,887,880	\$ 1,887,880
	Y-13	MA4D-B	McPherson Blvd. (3)	Cleburne Rd. to E City Limits	0.54	100%	\$ 4,392,000	\$ 4,392,000
	Y-14	M4U	Stewart Feltz Rd. (1)	Future Brewer Blvd. to Stewart Feltz Rd. SB Bend	0.40	100%	\$ 1,808,000	\$ 1,808,000
	Y-15	M4U	Stewart Feltz Rd. (2)	Stewart Feltz Rd. SB Bend to Sunflower Ridge Rd.	0.27	100%	\$ 1,286,000	\$ 1,286,000
	Y-16	M4U (1/2)	Sunflower Ridge Rd.	Existing Sunflower Ridge Rd. Dead End to future Summer Creek Dr.	0.27	100%	\$ 617,000	\$ 617,000
	Y-17	MA4D-B	Cleburne Crowley Rd. (1)	W City Limits to Stewart Feltz Rd. EB Curve	0.92	100%	\$ 6,583,000	\$ 6,583,000
	Y-18	MA4D-B	Cleburne Crowley Rd. (2)	Stewart Feltz Rd. EB Curve to 460' W. of Rancho Viejo	0.50	100%	\$ 3,494,000	\$ 3,494,000
	Y-19	M4U	Cleburne Rd.	Cleburne Crowley Rd. to Summer Creek Dr.	0.40	100%	\$ 1,901,000	\$ 1,901,000
	Y-20	MA4D-B	Bryant Irvin (1)	Dirks Rd. to 2,755' S. of Dirks Rd.	0.52	50%	\$ 3,786,000	\$ 1,893,000
	Y-21	MA4D-B	Bryant Irvin (2)	2,755' S. of Dirks Rd. to future Columbus Trl.	0.76	100%	\$ 5,414,000	\$ 5,414,000
Y	Y-22	MA4D	Bryant Irvin (3)	Future Columbus Trl. to S City Limits	1.83	100%	\$ 13,717,000	\$ 13,717,000
1	Y-23	MA4D-B	Brewer Blvd. (1)	Columbus Trl. to 155' N. of Bindweed St.	0.52	100%	\$ 4,565,000	\$ 4,565,000
	Y-24	M4U-B	Brewer Blvd. (2)	125' S. of Risinger Rd. to McPherson Blvd.	0.61	100%	\$ 3,270,000	\$ 3,270,000
	Y-25	M4U	Brewer Blvd. (3)	McPherson Blvd. to SW City Limits	1.55	100%	\$ 8,599,000	\$ 8,599,000
	Y-26	MA4D	Granbury Rd. (2)	350' S. of Alta Mesa Blvd. to 630' N. of Appalachian Way	0.23	100%	\$ 1,648,291	\$ 1,648,291
	Y-27	MA4D	Granbury/Summer Creek Dr.	Summer Meadows to Columbus Trail	0.54	100%	\$ 595,316	\$ 595,316
	Y-28	MA4D-B (1/2)	Summer Creek Dr. (1)	Summer Park to Risinger Rd.	0.40	100%	\$ 1,458,000	\$ 1,458,000
	Y-29	MA4D-B	Summer Creek Dr. (2)	Risinger Rd. to McPherson Blvd.	0.66	100%	\$ 2,952,839	\$ 2,952,839
	Y-30	MA4D-B (1/2)	Summer Creek Dr. (3)	McPherson Blvd. to Sunflower Ridge Rd.	0.45	100%	\$ 1,624,000	\$ 1,624,000
	Y-31	MA4D-B	Summer Creek Dr. (4)	Sunflower Ridge Rd. to 640' N. of Cleburne Crowley Rd.	0.82	100%	\$ 6,254,000	\$ 6,254,000
	Y-32	MA4D-B	Summer Creek Dr. (5)	Cleburne Crowley Rd. to future Cleburne Rd. Alignment	0.07	100%	\$ 474,000	\$ 474,000
	Y-33	MA4D	Summer Creek Dr. (6)	Existing Cleburne Rd. to SW City Limits	1.40	100%	\$ 10,176,000	\$ 10,176,000
	Y-34	M4U-B	Cleburne Rd. (1)	Future Summer Creek Dr. to existing Cleburne Rd.	0.15	100%	\$ 724,000	\$ 724,000
	Y-35	M4U-B	Cleburne Rd. (2)	Existing Cleburne Rd. to future Cleburne Rd. Alignment	0.26	100%	\$ 1,207,000	\$ 1,207,000
	Y-36	M4U-B	Cleburne Rd. (3)	Existing Cleburne Rd. to S City Limits	0.35	100%	\$ 1,743,000	\$ 1,743,000
	Y-37	MA4D-B (1/2)	Hulen St. (1)	McPherson Blvd. to Carriage Crossing Dr.	0.19	100%	\$ 689,000	\$ 689,000
	Y-38	MA4D-B	Hulen St. (2)	Carriage Crossing Dr. to S City Limits	0.36	100%	\$ 480,000	\$ 480,000
	Y-39	MA4D-B	Hulen St. (3)	325' N. of Rancho Verde Pkwy. To S. City Limits	0.50	100%	\$ 3,236,000	\$ 3,236,000
	Y-40	MA4D (1/2)	McCart Ave. (1)	585' S. of Risinger Rd. to 135' S. of Cayman Dr.	0.31	100%	\$ 1,474,000	\$ 1,474,000
	Y-41	MA4D	McCart Ave. (2)	135' S of Cayman Dr. to future McPherson Blvd.	0.57	100%	\$ 4,053,000	\$ 4,053,000
	Y-42	M4U	McCart Ave. (3)	McPherson Blvd. to 145' N of Twinleaf Dr.	0.60	100%	\$ 3,730,000	\$ 3,730,000
	Y-43	M4U (1/2)	McCart Ave. (4)	300' S of Twinleaf Dr. to S City Limits	0.44	100%	\$ 987,000	\$ 987,000
							ct Cost Subtotal	\$ 117,643,228
1				Transportation Impact	Fee Stud	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA Y \$ 117,668,783





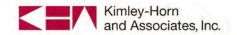
## Table 4.Z – 10-Year Transportation Improvements Plan with Conceptual Level Cost Projections – Service Area Z

Service Area	Proj. #	Class	Roadway	Limits	Length (mi)	% In Service Area	Total Project Cost	Cost in Service Area
	Z-1, X-7	MA4D	Everman Pkwy. (1)	Butterwick St. to Cameron Hill	0.56	50%	\$ 4,769,000	\$ 2,384,500
	Z-2, X-8	MA4D (1/2)	Everman Pkwy. (2)	Cameron Hill to 320' E. of Sheridan Rd.	0.29	50%	\$ 1,026,000	\$ 513,000
	Z-3	MA4D	Shelby Rd.	Race St. to Rendon / Forest Hill Dr.	1.00	100%	\$ 6,747,000	\$ 6,747,000
	Z-4	MA4D-B	Risinger Rd. (4)	FM 731 to IH-35W SBFR	1.62	100%	\$ 11,925,000	\$ 11,925,000
	Z-5	MA4D-B	Risinger Rd. (5)	IH-35W SBFR to Old Burleson Rd.	0.28	100%	\$ 1,821,000	\$ 1,821,000
	Z-6	MA4D-B	Risinger Rd. (6)	Old Burleson Rd. to Oak Grove Rd.	0.79	100%	\$ 6,047,000	\$ 6,047,000
	Z-7	MA4D-B	Oak Grove Shelby Rd.	Oak Grove Rd. to Race St.	1.01	100%	\$ 7,005,000	\$ 7,005,000
	Z-8	MA4D-B	Oak Grove Shelby Rd./Risinger Rd.	Race St. to Rendon / Forest Hill Dr.	1.00	100%	\$ 7,076,000	\$ 7,076,000
	Z-9	MA4D-B	McPherson Blvd. (4)	FM 731 to UP RR	1.30	100%	\$ 9,779,000	\$ 9,779,000
	Z-10	MA4D-B (1/2)	McPherson Blvd. (5)	Bilsky Bay Dr. to IH-35W SBFR	0.09	100%	\$ 336,000	\$ 336,000
	Z-11	MA4D-B (1/2)	McPherson Blvd. (6)	IH-35W SBFR to IH-35W NBFR	0.13	100%	\$ 3,591,000	\$ 3,591,000
	Z-12	MA4D-B	McPherson Blvd. (7)	IH-35W NBFR to Stone (Oak Grove)	0.67	100%	\$ 5,255,000	\$ 5,255,000
	Z-13	MA4D	McPherson Blvd. (8)	Stone (Oak Grove) to Forest Hill - Everman Rd.	1.44	100%	\$ 9,501,000	\$ 9,501,000
	Z-14	М3U-В	McAlister Rd. (1)	50' W of UP RR to IH-35W SBFR	0.27	100%	\$ 921,761	\$ 921,761
	Z-15	M4U-B	McAlister Rd. (2)	IH-35W SBFR to IH-35W NBFR	0.09	100%	\$ 2,716,000	\$ 2,716,000
	Z-16	M4U-B	McAlister Rd. (3)	IH-35W NBFR to Stone Rd.	0.24	100%	\$ 1,198,000	\$ 1,198,000
	Z-17	MA4D	Alsbury Blvd.	70' E of IH-35W NBFR to Stone Rd.	0.20	100%	\$ 1,256,000	\$ 1,256,000
	Z-18	MA4D-B	Hemphill St. (5)	Future Everman Pkwy. to Risinger Rd.	0.86	100%	\$ 6,540,000	\$ 6,540,000
	Z-19	MA4D-B	Hemphill St. (6)	1670' S of Risinger Rd. to 580' N of Brasenose St.	1.66	100%	\$ 12,541,000	\$ 12,541,000
	Z-20	MA4D-B (1/2)	Hemphill St. (7)	580' N of Brasenose St. to Nuffield Ln.	0.23	100%	\$ 822,000	\$ 822,000
	Z-21	M4U-B (1/2)	Hemphill St. (8)	FM 1187 EB to McAlister Rd.	0.25	100%	\$ 593,000	\$ 593,000
z	Z-22	M4U-B	Hemphill St. (9)	McAlister Rd. to S. City Limits	0.20	100%	\$ 1,006,000	\$ 1,006,000
	Z-23	MA4D-B	Oak Grove Rd. (4)	Forum Way to Future Risinger Rd./Oak Grove Shelby	0.36	100%	\$ 2,369,000	\$ 2,369,000
	Z-24	MA4D-B	Oak Grove Rd. (5)	Oak Grove Shelby to Oak Grove Rd. (Realigned)	0.19	100%	\$ 1,607,000	\$ 1,607,000
	Z-25	MA4D-B	Oak Grove Rd. (6)	Oak Grove Rd. (Realigned) to Buffalo Springs Dr.	0.62	100%	\$ 4,514,000	\$ 4,514,000
	Z-26	MA4D-B	Oak Grove Rd. (7)	Buffalo Springs Dr. to McPherson Blvd.	0.13	100%	\$ 844,000	\$ 844,000
	Z-27	MA4D-B	Oak Grove Rd. (8)	McPherson Blvd. to Oak Grove E.	0.43	100%	\$ 3,212,000	\$ 3,212,000
	Z-28	MA4D-B	Stone Rd. (1)	Oak Grove E. to Nelson Pl.	0.52	100%	\$ 3,641,000	\$ 3,641,000
	Z-29	MA4D-B	Stone Rd. (2)	Nelson Pl. to FM 1187	0.90	100%	\$ 6,844,000	\$ 6,844,000
	Z-30	M4U-B	Stone Rd. (3)	FM 1187 to Alsbury Dr.	1.07	100%	\$ 5,799,000	\$ 5,799,000
	Z-31	M4U-B	Stone Rd. (4)	Alsbury Blvd. to Abner Lee Dr.	0.62	100%	\$ 3,146,000	\$ 3,146,000
	Z-32	M4U-B	Stone Rd. (5)	Abner Lee Dr. to S City Limits	0.11	100%	\$ 560,000	\$ 560,000
	Z-33	MA4D	Wichita St. (3)	Shelby Rd. to Risinger Rd.	0.52	100%	\$ 3,727,000	\$ 3,727,000
	Z-34	MA4D (1/2)	Wichita St. (4)	Race St. to 790' W. of Race St.	0.15	100%	\$ 532,000	\$ 532,000
	Z-35	MA4D	Wichita St. (5)	790' W of Race St. to McPherson Blvd.	0.81	100%	\$ 6,057,000	\$ 6,057,000
	Z-36	MA4D	Oak Grove Rd. (9)	McPherson Blvd. to Nicole Way	0.96	100%	\$ 7,041,000	\$ 7,041,000
	Z-37	MA4D-B	Oak Grove Rd. (10)	Nelson Pl. to 115' N. of Doe Meadow Dr.	0.22	100%	\$ 1,403,000	\$ 1,403,000
	Z-38	M4U-B	Oak Grove Rd. (11)	FM 1187 to Burleson Retta Rd.	1.55	100%	\$ 8,836,000	\$ 8,836,000
	Z-39	M4U-B	Wildcat Way	Burleson Retta Rd. to S. City Limits	0.64	100%	\$ 3,416,000	\$ 3,416,000
	Z-40	MA4D	Rendon / Forest-Hill (1)	640' N of Chambers Creek Dr. to Shelby Rd.	0.45	50%	\$ 3,270,000	\$ 1,635,000
	Z-41	MA4D	Rendon / Forest-Hill (2)	Shelby Rd. to 80' S of future Risinger Rd.	0.50	50%	\$ 3,409,000	\$ 1,704,500
					Service A	rea Projec	ct Cost Subtotal	\$ 166,461,761
				Transportation Impact	Fee Stud	y Cost (Pe	r Service Area)	\$ 25,555

Total Cost in SERVICE AREA Z \$ 166,487,316

### Notes:

- a. These cost projections 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.
- b. The planning level cost projections shall not supersede the City's design standards or the determination of the City Engineer for a specific project.
- c. This project total cost within each Service Area may differ from the total shown in the Summary sheets contained within **Appendix A** due to some projects that are split between multiple service areas.





### E. 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. 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 2012 to 2022 is based upon projected changes in population and employment for the period. In order to determine this growth, estimates of population, basic employment, service employment, and retail employment for 2012 were made, along with growth projections for each of these demographic statistics through 2022. The Land Use Assumptions section of this report details the growth estimates used for impact fee determination.

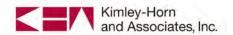
The population and employment statistics in the Land Use Assumptions provides the "independent variables" that are used to calculate the existing (2012) and projected (2022) transportation service units. The roadway demand for each service area is the sum of the service units (vehicle-miles) "generated" by each category of land use in the service area.

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 population is converted to dwelling units. The number of dwelling units in each service area is multiplied by a *transportation demand factor* 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. The *transportation demand factor* is discussed in more detail below.

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*, 9<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*, 9<sup>th</sup> *Edition* and the Regional Origin-Destination Travel Survey performed by NCTCOG. The *ITE Trip Generation Manual*, 9<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 region-wide travel characteristics survey conducted by NCTCOG.

The computation of the *transportation demand factor* is detailed in the following equation:

$$TDF = T * (1 - P_b) * L_{\text{max}}$$
 where... 
$$L_{\text{max}} = \min(L * OD \text{ or } 6)$$

### Variables:

TDF = Transportation Demand Factor,

T = Trip Rate (peak hour trips / unit),

P<sub>b</sub> = Pass-By Discount (% of trips),

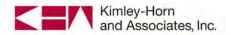
L<sub>max</sub> = Maximum Trip Length (miles),

L = Average Trip Length (miles), and

OD = Origin-Destination Reduction (50%)

The 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 NCTCOG Regional Origin-Destination 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** 

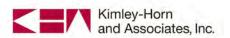
Variable	Residential	Basic	Service	Retail
T	1.00	0.97	1.49	3.71
$P_b$	0%	0%	0%	34%
L	17.21	10.02	10.92	6.43
$L_{max}$ *	6.00	5.01	5.46	3.22
TDF	6.00	4.86	8.14	7.89

<sup>\*</sup>  $L_{max}$  is less than 6 miles for non-residential land uses; therefore this lower trip length is used for calculating the TDF for non-residential land uses

### Variables:

$$\begin{split} TDF &= Transportation\ Demand\ Factor,\\ T &= Trip\ Rate\ (peak\ hour\ trips\ /\ unit),\\ P_b &= Pass-By\ Discount\ (\%\ of\ trips),\\ L_{max} &= Maximum\ Trip\ Length\ (miles),\\ L &= Average\ Trip\ Length\ (miles),\ and\\ OD &= Origin-Destination\ Reduction\ (50\%) \end{split}$$

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 2012 and 2022. These estimates and projections lead to the Vehicle-Miles of Travel for both 2012 and 2022.





# Table 6. 10-Year Growth Projections

700.00		RESIDENTIAL	_		Š	SQUARE FEET⁴	4	TRANS.	TRANS. DEMAND FACTOR $^{5}$	\CTOR⁵	NON-RE	NON-RESIDENTIAL VEHICLE-MILES	. VEHICLE	MILES	TOTAL
SEKVICE	POPULATION	DWELLING UNITS <sup>1</sup>	TDF <sup>2</sup>	VEHICLE MILES <sup>3</sup>	BASIC	SERVICE	RETAIL	BASIC	SER VICE7	RETAIL <sup>8</sup>	BASIC	SERVICE	RETAIL	TOTAL	VEHICLE MILES <sup>10</sup>
٧	26,167	8,870	00.9	53,220	4,263,380	1,093,895	45,898	4.86	8.14	7.89	20,720	8,904	362	29,986	83,206
₹	5,820	1,940	00.9	11,640	6,711,730	2,528,723	7,979,516	4.86	8.14	7.89	32,619	20,584	62,958	116,161	127,801
В	7,404	2,468	00'9	14,808	1,608,351	203,810	75,201	4.86	8.14	7.89	7,817	1,659	593	10,069	24,877
၁	18,510	6,170	00'9	37,020	1,466,165	388,325	66,843	4.86	8.14	7.89	7,126	3,161	527	10,814	47,834
۵	151,803	50,601	00.9	303,606	1,753,218	1,228,686	1,958,433	4.86	8.14	7.89	8,521	10,002	15,452	33,975	337,581
В	2,931	1,000	00.9	6,001	900,526	181,184	130,591	4.86	8.14	7.89	4,377	1,475	1,030	6,882	12,883
F	43,332	15,046	00'9	90,276	11,443,121	3,988,305	2,139,681	4.86	8.14	7.89	55,614	32,465	16,882	104,961	195,237
9	23,181	7,858	00.9	47,148	879,717	799,670	939,041	4.86	8.14	7.89	4,275	6,509	7,409	18,193	65,341
٦	12,934	4,808	00.9	28,848	2,978,038	1,155,718	1,170,301	4.86	8.14	7.89	14,473	9,408	9,234	33,115	61,963
Σ	28,932	10,081	00.9	60,486	1,174,603	966,014	1,711,200	4.86	8.14	7.89	5,709	7,863	13,501	27,073	87,559
Z	9,182	3,452	00'9	20,712	5,396,911	2,352,851	1,679,769	4.86	8.14	7.89	26,229	19,152	13,253	58,634	79,346
0	16,810	5,961	00.9	35,766	250,854	373,694	569,805	4.86	8.14	7.89	1,219	3,042	4,496	8,757	44,523
S	18,420	6,140	00.9	36,840	2,843	199,203	1,525,765	4.86	8.14	7.89	14	1,622	12,038	13,674	50,514
⊥	13,327	4,864	00.9	29,184	481,752	600,838	1,548,337	4.86	8.14	7.89	2,341	4,891	12,216	19,448	48,632
n	1,905	635	00.9	3,810	0	0	0	4.86	8.14	7.89	0	0	0	0	3,810
Μ	40,617	14,506	00.9	87,036	0	2,628,844	4,999,718	4.86	8.14	7.89	0	21,399	39,448	60,847	147,883
×	23,016	7,964	00.9	47,784	6,867,530	2,006,409	1,475,625	4.86	8.14	7.89	33,376	16,332	11,643	61,351	109,135
Υ	50,472	17,226	00.9	103,356	343,959	446,033	864,252	4.86	8.14	7.89	1,672	3,631	6,819	12,122	115,478
Z	15,270	2,090	00.9	30,540	5,818,420	1,774,228	982,653	4.86	8.14	7.89	28,278	14,442	7,753	50,473	81,013
Totals	510,033	174,680		1,048,081	52,341,118	22,916,429	29,862,630				254,380	186,541	235.614	676.535	1,724,616

<sup>&</sup>lt;sup>2</sup> Transportation Demand Factor for each Service Area (from LUVMET) using Single Family Detached Housing land use and trip generation rate From Land Use Assumptions

Calculated by multiplying TDF by the number of dwelling units From Land Use Assumptions

<sup>&</sup>lt;sup>5</sup> Trip generation rate and Transportation Demand Factors from LUVNET for each land use

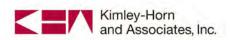
<sup>&#</sup>x27;Basic' corresponds to General Light Industrial land use and trip generation rate

<sup>&#</sup>x27;Service' corresponds to General Office land use and trip generation rate

<sup>&#</sup>x27;Retail' corresponds to Shopping Center land use and trip generation rate

Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use

<sup>&</sup>lt;sup>10</sup> Residential plus non-residential vehicle-mile totals for each Service Area





# Table 6 (cont.) 10-Year Growth Projections

POPULATION         DWELLING         TCHICLE         BASIC         SER WICE         RET AIL         BASIC         RET AIL         BASIC         RET AIL         A.8 In Page 1         RET AIL         RET AIL         T.89         LATA         SER WICE         T. 789         LATA         SER WICE	SEDVICE		RESIDENTIA			Š	SQUARE FEET⁴	-4	TRANS.	TRANS. DEMAND FACTOR <sup>5</sup>	\CTOR <sup>5</sup>	NON-RE	NON-RESIDENTIAL VEHICLE-MILES	- VEHICLE	:-MILES	TOTAL
11,282         6.00         67,692         5,451,694         2,001,981         1,006,139         4.86         814         7.89         26,485         16,286         5,074         5,074         5,074         5,074         5,074         5,074         5,074         5,074         5,074         5,074         5,074         5,074         5,074         5,074         5,074         6.00         14,466         6.00         14,466         2,526,69         1,37,432         3,375,639         4.86         8.14         7.89         12,406         9,280         29,173         11,425         10,896         29,486         5,136         10,896         29,488         5,294         10,896         29,403         11,136         10,896         29,403         10,896         29,403         10,896         29,403         10,896         29,408         10,896         29,408         20,113         10,896         29,408         20,113         20,113         20,113         20,113         20,113         20,113         20,113         20,114         20,113         20,114         20,113         20,114         20,114         20,114         20,114         20,114         20,114         20,114         20,144         20,144         20,144         20,144         20,144         20,1	₽.	OPULATION	DWELLING UNITS <sup>1</sup>	$TDF^2$	VEHICLE MILES <sup>3</sup>	BASIC	SER MCE	RETAIL	BASIC <sup>6</sup>	SERMCE <sup>7</sup>	RETAIL <sup>8</sup>	BASIC	SERVICE		TOTAL	VEHICLE MILES <sup>10</sup>
2,528         6.00         15,168         8,740,627         3,301,402         8,766,992         4.86         8.14         7.89         14,425         5,350         9,168         25,947         51,386         9,168         25,947         51,346         6,00         34,464         2,320,801         67,292         1,182,028         4.86         8.14         7.89         11,425         5,350         9,168         25,944         51,346         9,4054		32,943	11,282	00.9	67,692	5,451,694	2,001,981	1,008,199	4.86	8.14	7.89	26,495	16,296	7,955	50,746	118,438
5,744         6.00         34,464         2,350,801         657,292         1,162,028         4.86         8.14         7.89         11,425         5,360         9,188         25,944         5,594         5,594         5,594         5,594         5,594         5,594         5,594         5,594         5,594         5,594         5,594         5,594         5,594         5,136         9,185         1,136         9,136         1,136         9,136         1,136         9,136         1,136         9,136         1,136         9,136         1,136         9,136         1,136         9,136         1,136         9,136         1,136         9,136         1,136         9,136         1,136         1,137         9,136         1,137         1,137         1,137         1,136         1,136         1,136         1,137         1,138         1,138         1,138         1,138         1,138         1,138         1,138         1,138         1,138         1,138		7,483	2,528	00.9	15,168	8,740,627	3,301,402	8,766,992	4.86	8.14	7.89	42,479	26,873	69,172	138,524	153,692
12,434         6.00         74,604         2,552,589         1,137,143         3,735,639         4.86         8.14         7.89         12,406         9,256         29,474         51,136           53,289         6.00         319,734         2,241,707         3,666,832         6,756,809         4.86         8.14         7.89         10,895         29,474         51,136           1,466         6.00         8,796         1,0891,99         297,425         318,293         4.86         8.14         7.89         6,296         29,474         10,263           1,6540         6.00         8,796         1,3174,049         4,311,744         3,048,848         4.86         8.14         7.89         6,259         10,263         3,414           1,0594         6.00         63,564         2,584,406         1,770,805         4.86         8.14         7.89         10,263         3,414           1,0594         6.00         29,284         1,770,805         1,222,961         4.86         8.14         7.89         17,128         34,650           1,0594         6.00         20,386         1,272,291         4,86         8.14         7.89         17,29         17,128         3,465           2,578		17,060	5,744	00.9	34,464	2,350,801	657,292	1,162,028	4.86	8.14	7.89	11,425	5,350	9,168	25,943	60,407
53,289         6.00         319,734         2,241,707         3,666,832         6,756,809         4.86         8.14         7.89         10,895         29,848         53,311         94,054           1,466         6.00         8,796         1,0891,199         287,425         318,293         4.86         8.14         7.89         6,294         2,421         2,511         10,226           1,6540         6.00         8,796         1,3174,049         4,911,724         3,048,848         4.86         8.14         7.89         64,026         39,982         10,052         10,052         33,672         10,056         10,052         33,672         10,052         33,672         10,056         <		36,929	12,434	00.9	74,604	2,552,589	1,137,143	3,735,639	4.86	8.14	7.89	12,406	9,256	29,474	51,136	125,740
1,666         6.00         8,796         1,089,199         297,425         318,293         4.86         8.14         7.89         5,294         2,421         2,511         10,206           16,540         6.00         99,240         13,174,049         4,911,744         3,048,848         4.86         8.14         7.89         64,026         39,982         24,055         12,033         3,414           10,594         6.00         63,564         2,584,146         1,301,223         1,300,805         4.86         8.14         7.89         10,592         10,263         33,414           4,880         6.00         29,280         1,177,569         1,272,951         4.86         8.14         7.89         10,592         10,263         33,414           11,723         6.00         29,280         1,372,340         1,333,221         2,170,805         4.86         8.14         7.89         6,670         10,852         17,128         33,414           1,770         6.00         21,468         5,635,199         3,385,004         4,86         8.14         7.89         4,719         7,754           6,609         6.00         20,443         53,600         689,151         2,146         8.46         8.14 <td>l</td> <td>156,137</td> <td>53,289</td> <td>00.9</td> <td>319,734</td> <td>2,241,707</td> <td>3,666,832</td> <td>6,756,809</td> <td>4.86</td> <td>8.14</td> <td>7.89</td> <td>10,895</td> <td>29,848</td> <td>53,311</td> <td>94,054</td> <td>413,788</td>	l	156,137	53,289	00.9	319,734	2,241,707	3,666,832	6,756,809	4.86	8.14	7.89	10,895	29,848	53,311	94,054	413,788
16,540         6.00         99,240         13,174,049         4,911,744         3,048,848         4.86         8.14         7.89         64,026         39,982         24,055         12,639         12,63		4,354	1,466	00.9	8,796	1,089,199	297,425	318,293	4.86	8.14	7.89	5,294	2,421	2,511	10,226	19,022
10,594         6.00         63,564         2,584,146         1,301,223         1,300,805         4.86         8.14         7.89         10,592         10,593         10,692         10,263         33,414           4,880         6.00         29,280         2,388,405         1,177,959         1,222,951         4.86         8.14         7.89         10,592         10,263         33,612           11,723         6.00         70,338         1,372,340         1,333,221         2,170,805         4.86         8.14         7.89         6,670         10,852         17,128         34,650           6,609         6.00         21,468         5,655,199         3,385,034         3,149,063         4.86         8.14         7.89         6,670         17,128         34,650           6,609         6.00         21,468         5,653,199         3,385,034         31,49,063         4.86         8.14         7.89         17,19         7,887         13,825           6,609         6.00         46,740         2,843         302,115         2,152,881         4.86         8.14         7.89         17,19         7,887         13,825           1,790         6.00         30,420         0.01,10         117,006		47,139	16,540	00.9	99,240	13,174,049	4,911,744	3,048,848	4.86	8.14	7.89	64,026	39,982	24,055	128,063	227,303
4,880         6.00         29,280         2,988,405         1,177,959         1,222,951         4.86         8.14         7.89         14,524         9,689         9,649         33,762           11,723         6.00         70,338         1,372,340         1,333,221         2,170,805         4.86         8.14         7.89         6,670         10,852         17,128         34,650           6,609         6.00         21,468         5,635,199         3,385,034         3,149,063         4.86         8.14         7.89         27,387         27,554         24,846         79,787           6,609         6.00         21,468         5,635,199         3,385,034         3,149,063         4.86         8.14         7.89         1,219         4,719         7,887         13,855           7,720         6.00         46,740         2,843         302,115         2,152,884         8.14         7.89         1,459         16,969         15,076         2,459         16,459         10,458         10,459         10,459         10,458         10,458         10,458         10,458         10,458         10,458         10,458         10,458         10,458         10,458         10,458         10,458         10,458         10,458		30,934	10,594	00.9	63,564	2,584,146	1,301,223	1,300,805	4.86	8.14	7.89	12,559	10,592	10,263	33,414	96,978
11,723         6.00         70,338         1,372,340         1,333,221         2,170,805         4.86         8.14         7.89         6,670         10,852         17,128         34,650           3,578         6.00         21,468         5,635,199         3,386,034         3,149,063         4.86         8.14         7.89         27,387         27,554         24,846         79,787           6,609         6.00         21,468         5,635,199         3,386,034         31,49,063         4.86         8.14         7.89         1,719         7,787         13,825           7,790         6.00         46,740         2,843         302,115         2,152,681         4.86         8.14         7.89         1,4         7,89         13,85           5,263         6.00         31,578         538,600         689,115         1,990,580         4.86         8.14         7.89         1,4         7,89         16,459         1,4,49         1,		13,225	4,880	00.9	29,280	2,988,405	1,177,959	1,222,951	4.86	8.14	7.89	14,524	6,589	9,649	33,762	63,042
3,578         6.00         21,468         5,635,199         3,385,034         3,149,063         4.86         8.14         7.89         27,387         27,554         24,846         7,787           6,609         6.00         39,654         250,884         579,790         999,621         4.86         8.14         7.89         1,219         4,719         7,887         13,825           7,790         6.00         46,740         2,843         302,115         2,152,681         4.86         8.14         7.89         14         2,459         16,385         19,458         19,458         19,458         19,458         19,458         19,458         19,458         19,458         19,458         19,458         19,488		33,762	11,723	00.9	70,338	1,372,340	1,333,221	2,170,805	4.86	8.14	7.89	6,670	10,852	17,128	34,650	104,988
6,609         6.00         39,654         250,854         579,790         999,621         4.86         8.14         7.89         1,219         4,719         7,887         13,825           7,790         6.00         46,740         2,843         302,115         2,152,681         4.86         8.14         7.89         14         2,459         16,985         19,458           1,2483         6.00         31,578         538,600         689,115         1,990,580         4.86         8.14         7.89         2,618         5,609         15,706         2,3,933           1,5483         6.00         90,420         0         117,006         893,080         4.86         8.14         7.89         0         952         7,046         7,398           1,5473         4,60         1,543,318         5,524,121         4.86         8.14         7.89         0         23,332         7,543,562         6,6721           8,882         6.00         90,420         2,642,318         5,524,121         4.86         8.14         7.89         18,433         12,683         6,6721           1,243         6.00         123,044         2,002,711         1,259,395         4.86         8.14         7.89		9,517	3,578	00.9	21,468	5,635,199	3,385,034	3,149,063	4.86	8.14	7.89	27,387	27,554	24,846	79,787	101,255
7,790         6.00         46,740         2,843         302,115         2,152,681         4.86         8.14         7.89         14         2,459         16,985         19,458         19,458         19,458         19,458         19,458         19,458         1,2453         1,2453         1,2453         1,2453         1,2453         1,2453         1,2453         1,2453         1,243,734         1,243,734         1,243,734         1,243,734         1,243,734         1,243,734         1,243,734         1,243,734         1,259,395         4.86         8.14         7.89         0         23,136         4,586         6,720         1,249		18,637	6,609	00.9	39,654	250,854	579,790	999,621	4.86	8.14	7.89	1,219	4,719	7,887	13,825	53,479
5,263         6.00         31,578         538,600         689,115         1,990,580         4.86         8.14         7.89         2,618         5,609         15,706         23,933           2,483         6.00         14,898         0         117,006         893,080         4.86         8.14         7.89         0         952         7,046         7,998           15,070         6.00         90,420         0         2,842,318         5,524,121         4.86         8.14         7.89         0         23,136         4,586         66,721           8,882         6.00         53,292         7,754,356         2,264,507         1,607,432         4.86         8.14         7.89         37,686         18,433         12,683         68,802           20,514         6,00         123,084         421,772         1,195,623         2,955,113         4.86         8.14         7.89         37,686         18,433         12,683         68,902           8,620         6,00         39,720         6,440,306         2,002,711         1,259,395         4.86         8.14         7.89         31,300         9,937         57,539           8,00         6,00         39,720         6,440,306         2,002,71		23,214	7,790	00.9	46,740	2,843	302,115	2,152,681	4.86	8.14	7.89	14	2,459	16,985	19,458	66, 198
2,483         6.00         14,898         0         117,006         893,080         4.86         8.14         7.89         0         952         7,046         7,998           15,070         6.00         90,420         0         2,842,318         5,524,121         4.86         8.14         7.89         0         23,136         4,585         66,721           8,882         6.00         53,292         7,754,356         2,264,507         1,607,432         4.86         8.14         7.89         37,686         18,433         12,683         68,802           20,514         6.00         123,084         421,772         1,195,623         2,955,113         4.86         8.14         7.89         2,050         9,732         23,316         35,098           8,620         6.00         39,720         6,440,306         2,002,711         1,259,395         4.86         8.14         7.89         31,300         16,302         9,937         57,539           207,289         6.00         39,720         6,440,306         2,002,711         1,259,395         4.86         8.14         7.89         31,300         16,302         9,937         57,539           8         1,243,734         1,243,734         2		14,421	5,263	00.9	31,578	538,600	689,115	1,990,580	4.86	8.14	7.89	2,618	2,609	15,706	23,933	55,511
15,070         6.00         90,420         0         2,842,318         5,524,121         4.86         8.14         7.89         0         23,136         45,586         66,721           8,882         6.00         53,292         7,754,356         2,264,507         1,607,432         4.86         8.14         7.89         37,686         18,433         12,683         68,802           20,514         6.00         123,084         421,772         1,195,623         2,955,113         4.86         8.14         7.89         2,050         9,732         23,316         35,098           6,620         6.00         39,720         6,440,306         2,002,711         1,259,395         4.86         8.14         7.89         31,300         16,302         9,937         57,539           207,289         6,00         39,720         6,440,306         2,002,711         1,259,395         4.86         8.14         7.89         31,300         16,302         9,937         57,539           207,289         1,243,734         63,589,485         33,164,440         50,022,716         50,022,456         4.86         8.14         7.89         30,047         569,955         394,677         973,679         973,679		7,375	2,483	00.9	14,898	0	117,006	893,080	4.86	8.14	7.89	0	952	7,046	7,998	22,896
8,882         6.00         53,292         7,754,356         2,264,507         1,607,432         4.86         8.14         7.89         37,686         18,433         12,683         68,802         68,802           20,514         6.00         123,084         421,772         1,195,623         2,955,113         4.86         8.14         7.89         2,050         9,732         23,316         35,098           6,620         6.00         39,720         6,440,306         2,002,711         1,259,395         4.86         8.14         7.89         31,300         16,302         9,937         57,539           207,289         1,243,734         63,589,485         33,164,440         50,022,716         50,022,456         4.86         8.14         7.89         31,300         16,302         9,937         57,539		42,196	15,070	00.9	90,420	0	2,842,318	5,524,121	4.86	8.14	7.89	0	23,136	43,585	66,721	157,141
20,514         6.00         123,084         421,772         1,195,623         2,955,113         4.86         8.14         7.89         2,050         9,732         23,316         35,098           6,620         6.00         39,720         6,440,306         2,002,711         1,259,395         4.86         8.14         7.89         31,300         16,302         9,937         57,539           207,289         1,243,734         63,589,485         33,164,440         50,022,456         50,022,456         30,0047         269,955         394,677         973,679		25,847	8,882	00.9	53,292	7,754,356	2,264,507	1,607,432	4.86	8.14	7.89	37,686	18,433	12,683	68,802	122,094
6,620         6.00         39,720         6,440,306         2,002,711         1,259,395         4.86         8.14         7.89         31,300         16,302         9,937         57,539           207,289         1,243,734         63,589,485         33,164,440         50,022,456         60,022,456         309,047         269,955         394,677         973,679		60,106	20,514	00.9	123,084	421,772	1,195,623	2,955,113	4.86	8.14	7.89	2,050	9,732	23,316	35,098	158,182
207,289 1,243,734 63,589,485 33,164,440 50,022,456 309,047 269,955 394,677 973,679		19,529	6,620	00.9	39,720	6,440,306	2,002,711	1,259,395	4.86	8.14	7.89	31,300	16,302	9,937	57,539	97,259
		808'009	207,289		1,243,734	63,589,485	33,164,440	50,022,456				309,047	269,955	394,677	973,679	2,217,413

Notes

Transportation Demand Factor for each Service Area (from LUVMET) using Single Family Detached Housing land use and trip generation rate From Land Use Assumptions

Year 2022

<sup>&</sup>lt;sup>3</sup> Calculated by multiplying TDF by the number of dwelling units <sup>4</sup> From Land Use Assumptions

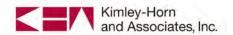
<sup>&</sup>lt;sup>5</sup> Trip generation rate and Transportation Demand Factors from LUVMET for each land use <sup>6</sup> 'Basic' corresponds to General Light Industrial land use and trip generation rate

<sup>&</sup>lt;sup>7</sup> 'Service' corresponds to General Office land use and trip generation rate

<sup>8 &#</sup>x27;Retail' corresponds to Shopping Center land use and trip generation rate

<sup>&</sup>lt;sup>9</sup> Calculated by multiplying Transportation Demand Factor by the number of thousand square feet for each land use

<sup>&</sup>lt;sup>10</sup> Residential plus non-residential vehicle-mile totals for each Service Area





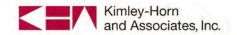
### Table 6 (cont.) 10-Year Growth Projections

### **VEHICLE-MILES OF INCREASE11 (2012 - 2022)**

SERVICE AREA	VEH-MILES
A	35,232
AA	25,891
В	35,530
C	77,906
D	76,207
E	6,139
F	32,066
G	31,637
L	1,079
M	17,429
N	21,909
O	8,956
S	15,684
T	6,879
U	19,086
W	9,258
X	12,959
Y	42,704
Z	16,246
Total	492,797

### Notes:

 $<sup>^{11}</sup>$  Total Vehicle-Miles (2012) subtracted from Total Vehicle-Miles (2022)





### V. 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 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.

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

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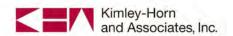
A number of facilities identified in the TIP have traffic currently utilizing a portion of their existing capacity. This line displays the total amount of capacity along these facilities currently be used by existing traffic.

	3 Total Vehicle-Miles of Existing Deficiencies	Number of vehicle-miles of travel that are not accommodated by the
3		existing roadway system (from <b>Appendix C</b> – Existing Roadway Facilities Inventory)
<u> </u>		

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 TIP – will have these additional trips removed from the calculation.

4	Net Amount of Vehicle- Miles of Capacity Added	A measurement of the amount of vehicle-miles added by the TIP that will not be utilized by existing demand (Line 1 – Line 2 – Line 3)
---	--	---

This calculation identifies the portion of the TIP (in vehicle-miles) that may be recoverable through the collection of impact fees.





5	Total Cost of the TIP within the Service Area	The total cost of the projects within each service area (from <b>Table 4</b> : 10-Year Transportation Improvements Plan with Conceptual Level Cost Opinions)
---	---	--

This line simply identifies the total cost of all of the projects identified in each service area.

	Cost of Net Capacity	The total TIP cost ( <b>Line 5</b> ) prorated by the ratio of Net Capacity
6	y 1	Added (Line 4) to Total Capacity Added (Line 1). [(Line 4 / Line 1)
	Supplied	* (Line 5)]

Using the ratio of vehicle-miles added by the 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).

7	Cost to Meet Existing	The difference between the Total Cost of the TIP (Line 5) and the
,	Needs and Usage	Cost of the Net Capacity supplied ( <b>Line 6</b> ). ( <b>Line 5 – Line 6</b> )

This line is provided for information purposes only – it is to present the portion of the total cost of the TIP that is required to meet existing demand.

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

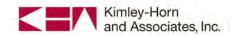
This line presents the amount of growth (in vehicle-miles) projected to occur within each service area over the next ten years.

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

In order to ensure that the vehicle-miles added by the 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 TIP exceeds the growth projected to occur in the next ten years, the TIP cost is reduced accordingly.

	Cost of Capacity Added	The result of multiplying the Cost of Net Capacity Added (Line 6) by
11	Attributable to New	the Percent of Capacity Added Attributable to New Growth, limited to
	Growth	100% ( <b>Line 9</b> ).

This value is the total 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. PLAN FOR AWARDING THE TRANSPORTATION IMPACT FEE CREDIT

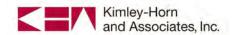
Chapter 395 of the Texas Local Government Code requires the Transportation Improvements Plan for Transportation Impact Fees to contain specific enumeration of a plan for awarding the impact fee credit. Section 395.014 of the Code states:

#### "(7) A plan for awarding:

- (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 capital improvements plan; or
- (B) In the alternative, a credit equal to 50 percent of the total projected cost of implementing the capital improvements plan..."

The plan is summarized, as prepared by J. Stowe & Co., 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
12	Financing Costs	(from <b>Appendix D</b> – Plan for Awarding the Transportation Impact Fee Credit)
13	Interest Earnings	(from <b>Appendix D</b> – Plan for Awarding the Transportation Impact Fee Credit)
14	Existing Impact Fee Fund Balance	(from <b>Appendix D</b> – Plan for Awarding the Transportation Impact Fee Credit)
15	Cost of the 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 11 + Line 12 + Line 13 + Line 14)
16	Pre-Credit Maximum Fee Per Service Unit	Found by dividing the Cost of the TIP and Financing Attributable to New Growth ( <b>Line 15</b> ) by the Total Vehicle-Miles of New Demand Over Ten Years ( <b>Line 8</b> ). ( <b>Line 15</b> / <b>Line 8</b> )
17	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)
18	Recoverable Cost of TIP and Financing	The difference between the Cost of the TIP and Financing Attributable to New Growth ( <b>Line 15</b> ) and the Credit for Ad Valorem Taxes ( <b>Line 17</b> ). ( <b>Line 15 + Line 17</b> )
19	Maximum Assessable Fee Per Service Unit	Found by dividing the Recoverable Cost of the TIP and Financing (Line 18) by the Total Vehicle-Miles of New Demand Over Ten Years (Line 8). (Line 18 / Line 8)





#### C. MAXIMUM ASSESSABLE IMPACT FEE DETERMINATION

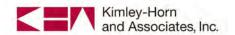
The impact fee determination method employed by J. Stowe & Co. is developed through a financial based model, which fully recognizes the requirements of Chapter 395, including the recognition of cash and/or debt financing, interest earnings, fund balances, and applicable credits associated with the use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

- Financing
  - o Method of financing (i.e. cash or debt financing)
  - o The level of financing (e.g. 50% debt / 50% cash)
  - Cost of financing
  - o 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 7** - line 11) is determined, it must then be decided how the cost will be financed: cash and/or debt. Based on discussions with City staff, it is assumed that the City will debt finance 50% of the 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 annually accumulate these capital expenditures through the City's line of credit and then issue debt. For the calculation of the maximum assessable impact fee, debt is assumed to be issued in equal amounts for years 2 through 9. Because of the ten 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, debt issued in year 10 reflects the capital expenditures accumulated from year 9 for the line of credit and the capital expenditures to be debt financed in year 10.





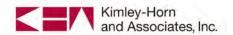
Because debt is issued over 20-year terms and impact fees developed herein are to be charged over a 10-year period, sufficient fund balance must be generated to meet the future debt service obligations. Because of the generation of the fund balance, excess monies will be available for interest earnings. 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 0.885% based on the City's average annual return on consolidated cash funds as of 9/4/12.

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 Impact Fee Transportation Improvements Plan. As an alternative, a credit equal to 50% of the total cost of implementing the Impact Fee Transportation Improvements Plan 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 Improvements Plan. 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 Impact Fee Transportation Improvements Plan. 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 Improvements Plan n. 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 cash funded projects (50% of the improvement costs included in the Transportation Improvements Plan) could potentially be funded by ad valorem tax revenue.

In reviewing **Table 7**, which is based on the assumption that 50% of the improvement costs will be funded by ad valorem taxes, Service Area Y has a credit of (see Line 17) \$265,976 and a maximum assessable impact fee per service unit (see Line 18) of \$2,376. If the assumption was made that 0% of the improvement costs are funded by ad valorem taxes, then the credit would be reduced to \$0 and the maximum assessable fee would rise by \$6 to \$2,382. If the assumption was made that 100% of the improvement costs were funded by ad valorem taxes then the credit would rise to approximately \$531,952 and the maximum assessable fee would be reduced by \$6 to \$2,370. The purpose of conducting this sample analysis for Service Area Y was to show the minimal impact this assumption has on the resulting maximum assessable impact fee. Please note that in this analysis, all costs are assumed to stay the same to isolate only the impact of the credit. In the event the funding scenario was amended as described, then the financing costs would also change, which have a much more significant impact on the maximum accessible fee.

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 7, line 11)

Plus: Financing Costs (**Table 7**, line 12) Less: Interest Earnings (**Table 7**, line 13)

Less: Existing Impact Fee Fund Balance (**Table 7**, line 14)
Pre Credit Recoverable Costs for Impact Fee (**Table 7**, line 15)

Less: Credit for Ad Valorem Revenues (Table 7, line 17)

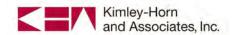
Maximum Recoverable Costs for Impact Fee (Table 7, line 18)





# Table 7. Maximum Assessable Transportation Impact Fee

SERVICE AR	EA: A	AA	В	С	D	E	F	G	L	М	N	0	S	T	U	W	X	Y	Z
TOTAL VEH-MI OF CAPACITY ADDED BY THE TIP (FROM CIP UNITS OF SUPPLY, APPENDIX B)	30,023	3,948	50,085	39,182	76,387	37,653	29,634	31,557	6,440	37,016	16,556	4,208	38,847	5,608	55,620	10,254	31,758	59,273	65,925
2 TOTAL VEH-MI OF EXISTING DEMAND (FROM TIP UNITS OF SUPPLY, APPENDIX B)	858	221	2,070	4,485	25,072	3,997	9,905	4,337	1,194	9,021	1,796	857	4,908	83	10	3,331	4,723	2,804	3,482
TOTAL VEH-MI OF EXISTING DEFICIENCIES (FROM EXISTING FACILITIES INVENTORY, APPENDIX C)	0	0	0	483	3,098	0	1,028	758	326	268	0	0	314	0	0	1,235	236	51	554
4 NET AMOUNT OF VEH-MI OF CAPACITY ADDED (LINE 1 - LINE 2 - LINE 3)	29,165	3,727	48,015	34,214	48,218	33,656	18,701	26,462	4,920	27,726	14,760	3,351	33,625	5,525	55,611	5,688	26,799	56,418	61,889
5 TOTAL COST OF THE TIP WITHIN SERVICE AREA (FROM TABLE 4)	\$ 65,568,514	\$ 5,252,555	\$ 101,709,163	\$ 100,825,555	\$ 100,702,091	\$ 88,883,555	\$ 44,414,055	\$ 66,352,055	\$ 8,562,555	\$ 79,618,555	\$ 26,763,555	\$ 9,719,555 \$	78,878,426 \$	13,566,555	\$ 134,642,000	\$ 12,427,400	\$ 62,287,055	\$ 117,668,783	\$ 166,487,316
6 COST OF NET CAPACITY SUPPLIED (LINE 4 / LINE 1) * (LINE 5)	\$ 63,694,778	\$ 4,957,944	\$ 97,505,229	\$ 88,042,341	\$ 63,566,158	\$ 79,447,923	\$ 28,027,823	\$ 55,638,290	\$ 6,542,107	\$ 59,636,614	\$ 23,860,401	\$ 7,739,547 \$	68,275,606 \$	13,365,241	\$ 134,619,003	\$ 6,893,110	\$ 52,560,074	\$ 112,000,314	\$ 156,295,727
7 COST TO MEET EXISTING NEEDS AND USAGE (LINE 5 - LINE 6)	\$ 1,873,736	\$ 294,611	\$ 4,203,934	\$ 12,783,214	\$ 37,135,933	\$ 9,435,632	\$ 16,386,232	\$ 10,713,765	\$ 2,020,448	\$ 19,981,941	\$ 2,903,154	\$ 1,980,008 \$	10,602,820 \$	201,314	\$ 22,997	\$ 5,534,290	\$ 9,726,981	\$ 5,668,469	\$ 10,191,589
8 TOTAL VEH-MI OF NEW DEMAND OVER TEN YEARS (FROM TABLE 6 and Land Use Assumptions)	35,232	25,891	35,530	77,906	76,207	6,139	32,066	31,637	1,079	17,429	21,909	8,956	15,684	6,879	19,086	9,258	12,959	42,704	16,246
9 PERCENT OF CAPACITY ADDED ATTRIBUTABLE TO GROWTH (LINE 8/ LINE 4)	121%	695%	74%	228%	158%	18%	171%	120%	22%	63%	148%	267%	47%	125%	34%	163%	48%	76%	26%
10 IF LINE 8 > LINE 4, REDUCE LINE 9 TO 100%, OTHERWISE NO CHANCE	100%	100%	74%	100%	100%	18%	100%	100%	22%	63%	100%	100%	47%	100%	34%	100%	48%	76%	26%
11 COST OF CAPACITY ADDED ATTRIBUT ABLE TO GROWTH (LINE 6 * LINE 10)	\$ 63,694,778	\$ 4,957,944	\$ 72,151,873	\$ 88,042,341	\$ 63,566,158	\$ 14,491,704	\$ 28,027,823	\$ 55,638,290	\$ 1,434,627	\$ 37,488,432	\$ 23,860,401	\$ 7,739,547 \$	31,846,197 \$	13,365,241	\$ 46,202,395	\$ 6,893,110	\$ 25,416,523	\$ 84,775,998	\$ 41,027,728
FINANCING COSTS (FROM APPENDIX D)	\$ 17,287,913	\$ 1,345,676	\$ 19,583,322	\$ 23,896,282	\$ 16,279,577	\$ 3,820,753	\$ 7,550,302	\$ 15,101,237	\$ 396,445	\$ 10,191,910	\$ 6,476,144	\$ 2,100,653 \$	8,399,907 \$	3,627,568	\$ 12,540,165	\$ 1,870,915	\$ 6,898,503	\$ 22,262,603	\$ 11,268,035
INTEREST EARNINGS (FROM APPENDIX D)	\$ (4,042,874)	\$ (316,002)	\$ (4,583,512)	\$ (5,655,290)	\$ (3,945,554)	\$ (920,533)	\$ (1,840,917)	\$ (3,542,641)	\$ (88,194)	\$ (2,388,488)	\$ (1,534,070)	\$ (498,849) \$	(1,974,484) \$	(849,122)	\$ (2,908,781)	\$ (449,593)	\$ (1,631,624)	\$ (5,238,651)	\$ (2,694,092)
14 EXISTING IMPACT FEE FUND BALANCE	\$ (742,927)	\$ (84,458)	\$ (949,073)	\$ (2,630,961)	\$ (2,219,167)	\$ (760,031)	\$ (1,711,683)	\$ (903,680)	\$ (57,589)	\$ (771,899)	\$ (700,448)	\$ (256,310) \$	(612,688) \$	(165,723)	\$ -	\$ (346,680)	\$ (697,005)	\$ (65,665)	\$ (1,423,207)
COST OF TIP AND FINANCING ATTRIBUTABLE TO GROWTH (LINE 11 + LINE 12 + LINE 13 + LINE 14)	\$ 76,196,891	\$ 5,903,159	\$ 86,202,610	\$ 103,652,372	\$ 73,681,015	\$ 16,631,893	\$ 32,025,525	\$ 66,293,207	\$ 1,685,289	\$ 44,519,955	\$ 28,102,027	\$ 9,085,040 \$	37,658,933 \$	15,977,964	\$ 55,833,778	\$ 7,967,752	\$ 29,986,398	\$ 101,734,285	\$ 48,178,464
PRE-CREDIT MAX FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 15 / LINE 8)	\$ 2,163	\$ 228	\$ 2,426	\$ 1,330	\$ 967	\$ 2,709	\$ 999	\$ 2,095	\$ 1,562	\$ 2,554	\$ 1,283	\$ 1,014 \$	2,401 \$	2,323	\$ 2,925	\$ 861	\$ 2,314	\$ 2,382	\$ 2,966
17 CREDIT FOR AD VALOREM TAXES (FROM APPENDIX D)	\$ (153,654)	\$ (2,948)	\$ (247,347)	\$ (571,240)	\$ (76,311)	\$ (7,039)	\$ (37,280)	\$ (153,422)	\$ (92)	\$ (63,145)	\$ (2,863)	\$ (5,057) \$	(51,735) \$	(5,228)	\$ (90,060)	\$ (3,893)	\$ (25,702)	\$ (531,952)	\$ (62,342)
18 RECOVERABLE COST OF TIP AND FINANCING (LINE 15 + LINE 17)	\$ 76,043,237	\$ 5,900,210	\$ 85,955,262	\$ 103,081,132	\$ 73,604,704	\$ 16,624,854	\$ 31,988,245	\$ 66,139,785	\$ 1,685,197	\$ 44,456,810	\$ 28,099,163	\$ 9,079,983 \$	37,607,197 \$	15,972,736	\$ 55,743,718	\$ 7,963,859	\$ 29,960,696	\$ 101,202,333	\$ 48,116,122
MAX ASSESSABLE FEE PER SERVICE UNIT (\$ PER VEH-MI) (LINE 18 / LINE 8)	\$ 2,158	\$ 228	\$ 2,419	\$ 1,323	\$ 966	\$ 2,708	\$ 998	\$ 2,091	\$ 1,562	\$ 2,551	\$ 1,283	\$ 1,014 \$	2,398 \$	2,322	\$ 2,921	\$ 860	\$ 2,312	\$ 2,370	\$ 2,962





#### D. SERVICE UNIT DEMAND PER UNIT OF DEVELOPMENT

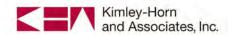
The transportation impact fee is determined by multiplying the impact fee rate by the number of service units projected for the proposed development. For this purpose, the City utilizes the Land Use/Vehicle-Mile Equivalency Table (LUVMET), presented in **Table 8**. This table lists the predominant land 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. 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, 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*,  $9^{th}$  *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 contain within the  $9^{th}$  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 identify 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 *Regional Origin-Destination Travel Survey* performed by the North Central Texas Council of Governments (NCTCOG). 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.

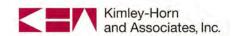
The remaining column in the LUVMET shows the vehicle-miles per development unit. This number is the product of the trip rate and the maximum trip length. This number, previously referred to as the *Transportation Demand Factor*, is used in the impact fee to compute the number of service units attributed 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 8. Land Use / Vehicle-Mile Equivalency Table (LUVMET)

Table 8. Land U	SC /	v chilcle-ivili	E Eq	<u>uu v</u>	aici	icy i	able	(L)	O 4 141	1111	
Land Use Category	ITE Land Use Code	Development Unit	Trip Gen Rate (PM)	Pass- by Rate	Pass-by Source	Trip Rate	NCTCOG Trip Length (mi)	Adj. For O-D	Adj. Trip Length (mi)	Max Trip Length (mi)	Veh-Mi Per Dev- Unit
PORT AND TERMINAL Truck Terminal	030	Acres	6.55			6.55	10.02	50%	5.01	5.01	32.82
INDUSTRIAL											
General Light Industrial General Heavy Industrial	110 120	1,000 SF GFA 1,000 SF GFA	0.97 0.68			0.97 0.68	10.02 10.02	50% 50%	5.01 5.01	5.01 5.01	4.86 3.41
Industrial Park	130	1,000 SF GFA	0.85			0.85	10.02	50%	5.01	5.01	4.26
Warehousing Mini-Warehouse	150 151	1,000 SF GFA 1,000 SF GFA	0.32 0.26			0.32 0.26	10.83 10.83	50% 50%	5.42 5.42	5.42 5.42	1.73 1.41
RESIDENTIAL	131	1,000 SI* GI*A	0.20			0.20	10.63	3070	3.42	3.42	1.41
Single-Family Detached Housing	210	Dwelling Unit	1.00			1.00	17.21	50%	8.61	6.00	6.00
Apartment/Multi-family Residential Condominium/Townhome	220	Dwelling Unit Dwelling Unit	0.62	ļ		0.62	17.21	50% 50%	8.61 8.61	6.00 6.00	3.72 3.12
Senior Adult Housing-Detached	230 251	Dwelling Unit	0.52 0.27			0.52 0.27	17.21 17.21	50%	8.61	6.00	1.62
Senior Adult Housing-Attached	252 254	Dwelling Unit	0.25 0.22			0.25 0.22	17.21	50%	8.61	6.00	1.50
Assisted Living LODGING	254	Beds	0.22			0.22	17.21	50%	8.61	6.00	1.32
	310 320	Rooms	0.60 0.47			0.60 0.47	6.43 6.43	50% 50%	3.22 3.22	3.22 3.22	1.93 1.51
Motel / Other Lodging Facilities	320	Rooms	0.47			0.47	6.43	50%	3.22	3.22	1.51
RECREATIONAL Golf Driving Range	432	Tees	1.25	<b></b>		1.25	6.43	50%	3.22	3.22	4.03
Golf Course	432 430 495	Acres	1.25 0.30 2.74 2.36			1.25 0.30 2.74 2.36	6.43	50%	3.22	3.22	4.03 0.97 8.82 7.60
Recreational Community Center Ice Skating Rink	495 465	1,000 SF GFA 1,000 SF GFA	2.74	<b></b>		2.74	6.43 6.43	50% 50%	3.22 3.22 3.22	3.22 3.22 3.22	7,60
Miniature Golf Course	431	Holes	0.33	<u> </u>		0.33	6.43	50%	3.22 3.22	3.22 3.22	1.06
Multiplex Movie Theater	445	Screens	13.64			13.64	6.43	50%	3.22	3.22	43.92
Racquet / Tennis Club INSTITUTIONAL	491	Courts	3.35	<u> </u>		3.35	6.43	50%	3.22 0.00	3.22	10.79
Church	560	1,000 SF GFA	0.55			0.55	4.20	50%	2.10	2.10	1.16
Day Care Center	565	1,000 SF GFA 1,000 SF GFA	12.34 1.27	44%	В	6.91	4.20 4.20	50% 50%	2.10 2.10	2.10 2.10	14.51 2.67
Adult Day Care Library	n/a 590	1,000 SF GFA	7.30	<b></b>	~~~~	1.27 7.30		50%	2.10	2.10	15.33
Library Primary/Middle School (1-8)	522	Students	0.16			0.16	4.20 4.20	50%	2.10 2.10	2.10 2.10	0.34
Private School (K-12) Private School (K-8)	536 534	Students Students	0.17 0.60	ļ		0.17 0.60	4.20 4.20	50% 50%	2.10 2.10	2.10 2.10	0.36 1.26
High School	530	Students	0.13			0.13	4.20	50%	2.10	2.10	0.27
Junior / Community College University / College	540 550	Students Students	0.12 0.17			0.12 0.17	4.20 4.20	50% 50%	2.10 2.10	2.10 2.10	0.27 0.25 0.36
Oniversity / Conege MEDICAL	330	Students	0.17			0.17	4.20	30%	2.10	2.10	0.30
Clinic	630	1,000 SF GFA Beds	5.18			5.18	7.55	50% 50%	3.78	3.78	19.58
Hospital	610 620	Beds Beds	5.18 1.42 0.22			5.18 1.42 0.22	7.55 7.55 7.55	50% 50%	3.78 3.78 3.78	3.78 3.78 3.78	19.58 5.37 0.83
Nursing Home Animal Hospital/Veterinary Clinic	640	1,000 SF GFA	4.72	30%	В	3.30	7.55	50%	3.78	3.78	12.47
OFFICE											
Corporate Headquarters Building General Office Building	714 710	1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	1.41	···		1.41	10.92 10.92	50% 50%	5.46 5.46 5.46	5.46 5.46	7.70 8.14 19.49
Medical-Dental Office Building	720	1,000 SF GFA	1.49 3.57			1.49 3.57	10.92	50% 50%	5.46	5.46	19.49
Government Office Building Single Tenant Office Building	730 715	1,000 SF GFA 1,000 SF GFA	1.21			1.21	10.92	50% 50%	5.46	5.46 5.46	6.61
Office Park	750	1,000 SF GFA	1.74 1.48	<b></b> -		1.74 1.48	10.92 10.92	50%	5.46 5.46	5.46	9.50 8.08
COMMERCIAL											
Automobile Related Automobile Care Center	942	1.000 SE CLA	3.11	40%	R	1.87	6.43	50%	3 22	3 22	6.02
Automobile Parts Sales	843	1,000 SF GLA 1,000 SF GFA	3.11 5.98	40% 43%	B A	3.41	6.43 6.43	50% 50% 50%	3.22 3.22	3.22 3.22	10.98 4.82
Gasoline/Service Station	944	Vehicle Fueling Positions	13.87	42%	A	3.41 8.04	1.20	50%	0.60	0.60	4.82
Gasoline/Service Station w/ Conv Market Gasoline/Service Station w/ Conv Market and Car Wash	945 946	Vehicle Fueling Positions Vehicle Fueling Positions	13.51 13.86	56% 56%	B A	5.94 6.10	1.20 1.20	50% 50%	0.60 0.60	0.60	3.56 3.66
Automobile Sales	841	1.000 SF GFA	2.62	20%	В	2.10	6.43	50%	3.22 3.22 0.60	3.22	6.76
Quick Lubrication Vehicle Shop Self-Service Car Wash	941 947	Servicing Positions Stalls	5.19 5.54	40% 40%	B B	3.11 3.32	6.43 1.20	50% 50%	3.22 0.60	3.22 3.22 0.60	10.01 1.99
Tire Store	848	1,000 SF GFA	4.15	28%	A	2.99	6.43	50%	3.22	3.22	9.63
Dining											
Fast Food Restaurant with Drive-Thru Window Fast Food Restaurant without Drive-Thru Window	934 933	1,000 SF GFA 1,000 SF GFA	32.65 26.15	50% 50%	A B	16.33 13.08	4.79 4.79	50% 50%	2.40 2.40	2.40 2.40	39.19 31.39
Drinking Place	925	1,000 SF GFA	11.34	50%	В	5.67	4.79	50%	2.40	2.40	13.61
High Tumover (Sit-Down) Restaurant	932	1,000 SF GFA	9.85	43%	A	5.61	4.79	50%	2.40	2.40	13.46
Quality (Low Turnover) Restaurant Coffee/Donut Shop without Drive-Through Window Coffee/Donut Shop with Drive-Thru Window	931 936	1,000 SF GFA 1,000 SF GFA 1,000 SF GFA	7.49 40.75	44% 70%	A B	4.19 12.23	4.79 4.79	50% 50%	2.40 2.40 2.40	2.40 2.40	10.06 29.35
	936 937	1,000 SF GFA	42.80	70%	B B	12.84	4.79	50%	2.40	2.40	29.35 30.82
Other Retail	015	1.000 CE CEA	4.00	200/		2.40	6.42	£00/	2.22	2.22	11.24
Free-Standing Discount Store Discount Club	815 857	1,000 SF GFA 1,000 SF GFA	4.98 4.18	30% 30%	C B	3.49 2.93	6.43 6.43	50% 50%	3.22 3.22	3.22 3.22	11.24 9.43
Nursery (Garden Center)	817	1,000 SF GFA	6.94	30%	В	4.86	6.43	50%	3.22	3.22	15.65
Convenience Market (Open 15-16 Hours)  Convenience Market (Open 24 Hours)	852 851	1,000 SF GFA 1,000 SF GFA	34.57 52.41 2.33	61% 61%	A A	13.48 20.44	1.20 1.20	50% 50% 50%	0.60 0.60	0.60 0.60	8.09 12.26 3.90
Nussery (Garden Center) Convenience Market (Open 15-16 Hours) Convenience Market (Open 24 Hours) Hone Improvement Superstore	862	1,000 SF GFA	2.33	48%	A	1.21	6.43	50%	3.22	3.22	3.90
Pharmacy/Drugstore w/o Drive-Thru Window Pharmacy/Drugstore w/ Drive-Thru Window	880 881	1,000 SF GFA 1,000 SF GFA	8.40 9.91	53% 49%	Α	3.95 5.05	6.43 6.43	50% 50%	3.22 3.22 3.22	3.22 3.22	12.72 16.26
Shopping Center	881 820	1,000 SF GLA	3.71	34%	A A	2.45	6.43	50%	3.22	3 22	7.89
Supermarket	850	1,000 SF GFA	9.48	36%	A	6.07	6.43	50%	3.22	3.22	19.55
Sporting Goods Superstore Toy/Children's Superstore	861 864	1,000 SF GFA 1,000 SF GFA	1.84 4.99	30% 30%	B B	1.29 3.49	6.43	50% 50% 50%	3.22	3.22	4.15 11.24 4.22
Department Store	864 875	1,000 SF GFA	1.87	30% 30%	В	1.31	6.43 6.43	50%	3.22 3.22	3.22 3.22	4.22
SERVICES Wells to Doort		1,000 or cm	10.10	400		7.00	2.20		L		
Walk-In Bank Drive-In Bank	911 912	1,000 SF GFA Drive-in Lanes	12.13 33.24	40% 47%	B A	7.28 17.62	3.39 3.39	50% 50%	1.70 1.70	1.70 1.70	12.38 29.95
Hair Salon	918	1,000 SF GLA	1.45	30%	B	1.02	3.39	50%	1.70	1.70	1.73
						Pass-by R					





# VI. SAMPLE CALCULATIONS

The following section details two (2) examples of maximum assessable transportation impact fee calculations.

#### Example 1:

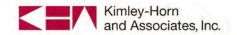
• Development Type - One (1) Unit of Single-Family Housing in Service Area A

	Transportation Impact Fee Calculation Steps – Example 1						
	Determine Development Unit and Vehicle-Miles Per Development Unit						
Step	From Table 8 [Land Use – Vehicle-Mile Equivalency Table]						
1	Development Type: 1 Dwelling Unit of Single-Family Detached Housing						
	Number of Development Units: 1 Dwelling Unit						
	Veh-Mi Per Development Unit: 6.00						
Ston	Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)						
Step 2	From Table 7, Line 19 [Maximum Assessable Fee Per Service Unit]						
	Service Area C: \$2,158						
	Determine Maximum Assessable Impact Fee						
Step	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit						
3	Impact Fee = 1 * 6.00 * \$2,158						
	Maximum Assessable Impact Fee = \$12,948						

#### Example 2:

#### • Development Type – 125,000 square foot Home Improvement Superstore in Service Area W

	Transportation Impact Fee Calculation Steps – Example 2						
	Determine Development Unit and Vehicle-Miles Per Development Unit						
Step	From Table 8 [Land Use – Vehicle-Mile Equivalency Table]						
1	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: 3.90						
Ston	Determine Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile)						
Step 2	From Table 7, Line 19 [Maximum Assessable Fee Per Service Unit]						
2	Service Area W: \$860						
	Determine Maximum Assessable Impact Fee						
Step	Impact Fee = # of Development Units * Veh-Mi Per Dev Unit * Max. Fee Per Service Unit						
3	Impact Fee = 125 * 3.90 * \$860						
	Maximum Assessable Impact Fee = \$419,250						





# VII. 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 7**.

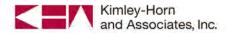
This document serves as a guide to the assessment of transportation impact fees pertaining to future development and the City's need for transportation improvements to accommodate that growth. Following the public hearing process, the City Council may establish an impact fee amount to be collected (if any) 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 Impact Fee Transportation Improvements Plan are appropriately incorporated into the development of the maximum assessable transportation impact fee.

Below is the listing of the 2013 Transportation Impact Fee Study's Maximum Assessable Impact Fee Per Service Unit (Vehicle-Mile):

SERVICE AREA	Maximum Fee Per Service Unit (per Vehicle-Mile)
A	\$2,158
AA	\$228
В	\$2,419
C	\$1,323
D	\$966
E	\$2,708
F	\$998
G	\$2,091
L	\$1,562
M	\$2,551
N	\$1,283
0	\$1,014
S	\$2,398
T	\$2,322
U	\$2,921
W	\$860
X	\$2,312
Y	\$2,376
Z	\$2,962







# **APPENDICES**

#### A. CONCEPTUAL LEVEL PROJECT COST PROJECTIONS

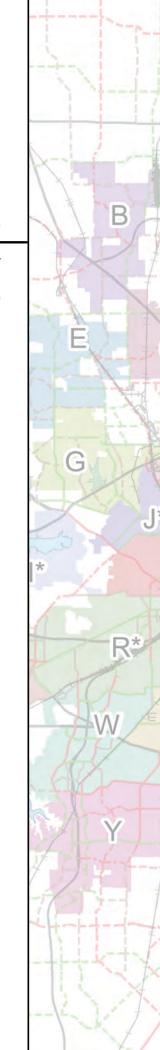
- SERVICE AREA A
- SERVICE AREA AA
- SERVICE AREA B
- SERVICE AREA C
- SERVICE AREA D
- SERVICE AREA E
- SERVICE AREA F
- SERVICE AREA G
- SERVICE AREA O
- SERVICE AREA L
- SERVICE AREA M
- SERVICE AREA N
- SERVICE AREA O
- SERVICE AREA S SERVICE AREA T
- SERVICE AREA U
- GEDVICE AREA W
- SERVICE AREA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

# A

2013 Transportation Impact Fee Study

Conceptual Level Project

Cost Projections



#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area A

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
A-1	MA4D	Litsey Rd. (1)	IH-35W to Future N. Beach St.	\$ 2,340,000
A-2	MA4D	Litsey Rd. (2)	Future N. Beach St. to Existing Litsey Rd.	\$ 1,267,000
A-3	MA4D	Litsey Rd. (3)	425' E. of Elizabethtown C. Rd. to Cleveland Gibbs Rd.	\$ 3,583,000
A-4	MA4D	Litsey Rd. (4)	Cleveland Gibbs Rd. to 470' E of Cleveland Gibbs Rd.	\$ 560,000
A-5	MA4D	Litsey Rd. (5)	Henrietta Creek Bridge	\$ 1,600,000
A-6	MA4D	Litsey Rd. (6)	Henrietta Creek Bridge to Seventeen Lakes Blvd.	\$ 1,273,000
A-7	MA4D	Litsey Rd. (7)	270' E of Seventeen Lakes Blvd. to E. City Limits	\$ 2,309,000
A-8	MA4D-B	Eagle Pkwy. (1)	Elizabethtown C. Rd. to 950' E. of Future Beach St.	\$ 3,709,000
A-9	MA4D-B	Eagle Pkwy. (2)	W. City Limits to Henrietta Creek Rd.	\$ 3,974,000
A-10	MA4D-B (1/2)	Henrietta Creek Rd.	W. City Limits to Independence Pkwy.	\$ 1,130,000
A-11	MA4D-B (1/2)	Westport Pkwy. (1)	IH-35W NBFR to 640' E. of IH-35W NBFR	\$ 612,000
A-12	MA4D-B	Westport Pkwy. (2)	640' E. of IH-35W NBFR to Old Denton Rd.	\$ 3,482,000
A-13	MA4D-B	Westport Pkwy. (3)	Old Denton Rd. to Future N. Beach St.	\$ 3,888,000
A-14	MA4D-B	Westport Pkwy. (4)	Future N. Beach St. to Alta Vista Rd.	\$ 2,610,000
A-15	MA4D-B (1/2)	Westport Pkwy. (5)	Alta Vista Rd. to Haslet-Roanoke Rd.	\$ 806,000
A-16	MA4D-B	Westport Pkwy. (6)	495' NW of SH 170 WBFR to SH 170 WBFR	\$ 642,000
A-17	MA4D-B	Westport Pkwy. (7)	SH 170 EBFR to Existing Westport Pkwy.	\$ 2,732,000
A-18	MA4D-B (1/2)	Westport Pkwy. (8)	400' E of Park Vista Blvd. to 1370' W of Independence Pkwy.	\$ 1,341,000
A-19, D-1	MA4D-B	Timberland Blvd. (1)	Beach St. to 425' E of Lillybrook Ln.	\$ 544,917
A-20, D-2	MA4D-B	Timberland Blvd. (2)	425' E of Lillybrook Ln. to Caylor Rd.	\$ 1,970,000
A-21, D-3	MA4D-B	Timberland Blvd. (3)	Caylor Rd. To Park Vista Blvd.	\$ 1,571,000
A-22, D-5	MA4D-B	Timberland Blvd. (5)	390' E of Harvest Oaks Dr. to E. City Limits	\$ 695,000
A-23	MA4D-B	Old Denton Rd. (1)	Westport Pkwy. to SH 170 WB	\$ 3,605,000
A-24	MA4D	N. Beach St. (1)	Litsey Rd. to Eagle Pkwy.	\$ 4,391,000
A-25	MA4D-B	N. Beach St. (2)	Eagle Pkwy. to S. City Limits	\$ 2,388,000
A-26	P6D-B	N. Beach St. (3)	Westport Pkwy. to SH 170 WB	\$ 1,844,000
A-27, D-23	P6D-B	N. Beach St. (4)	SH 170 EBFR to 410' N of Saratoga Downs	\$ 3,383,000
A-28, D-24	P6D (1/3)	N. Beach St. (5)	410' N of Saratoga Downs Way to Timberland Blvd.	\$ 1,378,000
A-29	MA4D-B	Independence Pkwy. (1)	N. City Limits to Henrietta Creek Rd.	\$ 8,404,000
A-30	MA4D-B (1/2)	Park Vista Blvd. (1)	Keller-Haslet Rd. to Timberland Blvd.	\$ 2,282,000

TOTAL \$ 70,313,917

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. A-1

Name: Litsey Rd. (1) This project consists of the construction of a new

Limits: IH-35W to Future N. Beach St. four-lane divided major arterial.

Impact Fee Class: MA4D
Ultimate Class: Major Arterial

Length (If): 1,865 Service Area(s): A

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
108	Unclassified Street Excavation	8,289	су	\$	10.50	\$ 87,033
208	6" Lime Stabilization (with Lime @ 32#/sy)	12,433	sy	\$	3.00	\$ 37,300
308	11" Concrete Pavement	11,604	sy	\$	44.00	\$ 510,596
408	6" Curb & Gutter	7,460	lf	\$	6.50	\$ 48,490
508	4" Topsoil	9,325	sy	\$	5.00	\$ 46,625
608	4' Concrete Sidewalk	14,920	sf	\$	5.00	\$ 74,600
701	Turn Lanes and Median Openings	1,348	sy	\$	44.00	\$ 59,323
	P	aving Constr	uction (	Cost S	Subtotal:	\$ 863.966

Paving Construction Cost Subtotal: \$ 863,966

Major Construction Component Allow	vances:	_	
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 25,919
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers		2%	\$ 18,547
$\sqrt{}$ Roadway Drainage	Standard Internal System	30%	\$ 259,190
$\sqrt{}$ Illumination		11%	\$ 97,289
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 51,838
√ Sewer	Minor Adjustments	4%	\$ 34,559
√ Establish Turf / Erosion Control		3%	\$ 25,919
√ Basic Landscaping		3%	\$ 25,919
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	nce Subtotal:	\$ 539,179
	Paving and Allowa		 1,403,146
	Construction Contingency:	15%	\$ 210,472
	Construction C	ost TOTAL:	\$ 1,614,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,614,000
Engineering/Survey/Testing:		20%	\$ 322,800
Mobilization		5%	\$ 80,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 322,800
	Impact Fee Pro	ject Cost TOTAL:	\$ 2,340,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Description:

Project No.

A-2

Name:

Litsev Rd. (2)

This project consists of the

Name: Litsey Rd. (2) This project consists of the Limits: Future N. Beach St. to Existing Litsey Rd. construction of a new four-lane divided

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial Length (If): 1,010
Service Area(s): A

	Item Description	•	Quantity	Unit	Un	it Price	Item Cost
108	Unclassified Street Excavation		4,489	су	\$	10.50	\$ 47,133
208	6" Lime Stabilization (with Lime @ 3	2#/sy)	6,733	sy	\$	3.00	\$ 20,200
308	11" Concrete Pavement		6,284	sy	\$	44.00	\$ 276,516
408	6" Curb & Gutter		4,040	lf	\$	6.50	\$ 26,260
508	4" Topsoil		5,050	sy	\$	5.00	\$ 25,250
608	4' Concrete Sidewalk		8,080	sf	\$	5.00	\$ 40,400
701	Turn Lanes and Median Openings		730	sy	\$	44.00	\$ 32,126
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 467,885
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			Alle	owance	Item Cost
	Prep ROW					3%	\$ 14,037
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers					2%	10,044
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 140,366
	Illumination					11%	\$ 52,687
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	28,073
	Sewer	Minor Adjustments				4%	18,715
	Establish Turf / Erosion Control					3%	14,037
	Basic Landscaping					3%	\$ 14,037
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	-
	Allowance Subtotal:					\$ 291,995	
	Paving and Allowance Subtotal:						\$ 759,880
		Constru	uction Conti	ngency:		15%	\$ 113,982
			Constru	ction C	ost 7	ΓΟTAL:	\$ 874,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 874,000
Engineering/Survey/Testing:		20%	\$ 174,800
Mobilization		5%	\$ 43,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 174,800
	Impact Fee Project	Cost TOTAL:	\$ 1,267,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Informat	tion:	Description:	Project No.	A-3
Name:	Litsey Rd. (3)		This project cons	ists of the
Limits:	425' E. of Elizabethtown C. Rd. to	Cleveland Gibbs Rd.	reconstruction of	an existing
Impact Fee Class:	MA4D		two-lane undivide	ed asphalt
Ultimate Class:	Major Arterial		facility into a four	-lane divided
Length (If):	2,815		major arterial.	
Service Area(s):	A		ajor antonian	

Roa	adway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
108	Unclassified Street Excavation		12,511	су	\$	10.50	\$	131,367
208	6" Lime Stabilization (with Lime @ 3	2#/sy)	18,767	sy	\$	3.00	\$	56,300
308	11" Concrete Pavement		17,516	sy	\$	44.00	\$	770,684
408	6" Curb & Gutter		11,260	lf	\$	6.50	\$	73,190
508	4" Topsoil		14,075	sy	\$	5.00	\$	70,375
608	4' Concrete Sidewalk		22,520	sf	\$	5.00	\$	112,600
701	Turn Lanes and Median Openings		2,035	sy	\$	44.00	\$	89,540
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	1,304,057
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		39,122
	Traffic Control	Construction Phase	Traffic Control			3%		39,122
	Pavement Markings/Markers					2%		27,994
	Roadway Drainage	Standard Internal Sy	stem			30%		391,217
	Illumination					11%	\$	146,846
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	78,243
	Sewer	Minor Adjustments				4%		52,162
	Establish Turf / Erosion Control					3%	\$	39,122
$\sqrt{}$	Basic Landscaping					3%		39,122
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:							
	Allowance Subtotal:						\$	1,002,950
	Paving and Allowa <u>nce Subtotal:</u>							2,307,006
		Constru	uction Conti	ngency:		15%	\$	346,051
			Construc	ction C	ost	TOTAL:	\$	2,654,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,654,000
Engineering/Survey/Testing:		20%	\$ 530,800
Mobilization		5%	\$ 132,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 265,400
	Impact Fee Project (	Cost TOTAL:	\$ 3,583,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

divided major arterial.

Project Information:

Name:
Litsey Rd. (4)
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Description:
Project No. A-4

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a new four-lane

Length (If): 470 Service Area(s): A

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
108	Unclassified Street Excavation	2,089	су	\$	10.50	\$ 21,933
208	6" Lime Stabilization (with Lime @ 32#/sy)	3,133	sy	\$	3.00	\$ 9,400
308	11" Concrete Pavement	2,924	sy	\$	44.00	\$ 128,676
408	6" Curb & Gutter	1,880	lf	\$	6.50	\$ 12,220
508	4" Topsoil	2,350	sy	\$	5.00	\$ 11,750
608	4' Concrete Sidewalk	3,760	sf	\$	5.00	\$ 18,800
701	Turn Lanes and Median Openings	340	sy	\$	44.00	\$ 14,950
		Paving Consti	ruction (	Cost	Subtotal:	\$ 217,729

Majo	or Construction Component Allow						
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	6,532		
	Traffic Control	Construction Phase Traffic Control	3%	\$	6,532		
	Pavement Markings/Markers		2%	\$	4,674		
	Roadway Drainage	Standard Internal System	30%	\$	65,319		
	Illumination		11%	\$	24,518		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	13,064		
	Sewer	Minor Adjustments	4%	\$	8,709		
	Establish Turf / Erosion Control		3%	\$	6,532		
	Basic Landscaping		3%	\$	6,532		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
	Other:		\$0	\$	-		
		Allowa	ınce Subtotal:	\$	142,411		
	Paving and Allowance Subtotal:						
		Construction Contingency:	15%	\$	54,021		
		Construction C	ost TOTAL:	\$	415,000		

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 415,000
Engineering/Survey/Testing:		20%	\$ 83,000
Mobilization		5%	\$ 20,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 41,500
	Impact Fee Proje	ect Cost TOTAL:	\$ 560,000

**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.

# City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	A-5
Name:	Litsey Rd. (5)	This completed p	roject consisted of t	he
Limits:	Henrietta Creek Bridge	construction of a	four-lane bridge acr	oss Henrietta
Impact Fee Class:	MA4D	Creek.		
<b>Ultimate Class:</b>	Major Arterial			
Length (If):	785			
Service Area(s):				

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 1,600,000
	Impact Fee Project C	ost TOTAL:	\$ 1,600,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Informat	t <b>ion:</b> De	scription:	Project No.	A-6
Name:	Litsey Rd. (6)		This project consists of the	
Limits:	Henrietta Creek Bridge to Seventeen Lak	es Blvd.	reconstruction of an existing	two-lane
Impact Fee Class:	MA4D		undivided asphalt facility into	a four-
Ultimate Class:	Major Arterial		lane divided major arterial.	
Length (If):	1,070			
Service Area(s):	A			

-	Item Description	Jeduon	Quantity	Unit	Un	it Price	Item Cost
	Unclassified Street Excavation		4,756	СУ	\$	10.50	\$ 49,933
208	6" Lime Stabilization (with Lime @ 3	32#/sv)	7,133	sy	\$	3.00	\$ 21,400
	11" Concrete Pavement	,,	6,658	sy	\$	44.00	\$ 292,942
408	6" Curb & Gutter		4,280	lf	\$	6.50	\$ 27,820
508	4" Topsoil		5,350	sy	\$	5.00	\$ 26,750
	4' Concrete Sidewalk		8,560	sf	\$	5.00	\$ 42,800
701	Turn Lanes and Median Openings		774	sy	\$	44.00	\$ 34,035
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 495,680
Majo	or Construction Component Allowa						
	Item Description	Notes			Allo	owance	Item Cost
	Prep ROW					3%	\$ 14,870
	Traffic Control	Construction Phase	Traffic Control			3%	14,870
√,	Pavement Markings/Markers					2%	10,641
√.	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 148,704
	Illumination					11%	\$ 55,817
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	29,741
	Sewer	Minor Adjustments				4%	19,827
	Establish Turf / Erosion Control					3%	14,870
	Basic Landscaping					3%	\$ 14,870
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other: \$0				\$ -		
Allowance Subtotal:						\$ 324,212	
			Paving an				\$ 819,892
		Constru	uction Conti			15%	122,984
I			Constru	ction C	ost 1	ΓΟΤAL:	\$ 943,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 943,000
Engineering/Survey/Testing:		20%	\$ 188,600
Mobilization		5%	\$ 47,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 94,300
	Impact Fee Pi	roject Cost TOTAL:	\$ 1,273,000

**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.

**Project Information:** 

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. 10/2/2012 updated:

Description: Project No. **A-7** 

Name: Litsey Rd. (7) Limits:

270' E of Seventeen Lakes Blvd. to E. City Limits

Impact Fee Class: MA4D

**Ultimate Class:** Major Arterial

Length (If): 1,940 Service Area(s): Α

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-

lane divided major arterial.

Allowance Subtotal:

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

Roa	adway Construction Cost Proj	ection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
108	Unclassified Street Excavation		8,622	су	\$	10.50	\$	90,533
208	6" Lime Stabilization (with Lime @ 32	2#/sy)	12,933	sy	\$	3.00	\$	38,800
308	11" Concrete Pavement		12,071	sy	\$	44.00	\$	531,129
408	6" Curb & Gutter		7,760	lf	\$	6.50	\$	50,440
508	4" Topsoil		9,700	sy	\$	5.00	\$	48,500
608	4' Concrete Sidewalk		15,520	sf	\$	5.00	\$	77,600
701	Turn Lanes and Median Openings		1,402	sy	\$	44.00	\$	61,708
		Pa	aving Consti	uction (	Cost S	Subtotal:	\$	898,710
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		26,961
√.	Traffic Control	Construction Phase	Traffic Control			3%		26,961
√.	Pavement Markings/Markers					2%	-	19,292
√.	Roadway Drainage	Standard Internal Sy	stem			30%	-	269,613
	Illumination					11%	\$	101,201
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	53,923
	Sewer	Minor Adjustments				4%		35,948
	Establish Turf / Erosion Control					3%		26,961
	Basic Landscaping					3%		26,961
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:							

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,710,000
Engineering/Survey/Testing:		20%	\$ 342,000
Mobilization		5%	\$ 85,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 171,000
	Impact Fee Pi	roject Cost TOTAL:	\$ 2,309,000

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.

587,823

1,486,534

1,710,000

\$

222,980

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 A-8

 Name:
 Eagle Pkwy. (1)
 This project consists of the construction of a new four-lane divided major arterial.

 Limits:
 MA4D-B
 MA4D-B
 divided major arterial.

Ultimate Class:
Length (If):
Service Area(s):

Major Arterial
2,665
A

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	12,141	су	\$	10.50	\$ 127,476
209	6" Lime Stabilization (with Lime @ 32#/sy)	18,359	sy	\$	3.00	\$ 55,077
309	11" Concrete Pavement	17,174	sy	\$	44.00	\$ 755,676
409	6" Curb & Gutter	10,660	lf	\$	6.50	\$ 69,290
509	4" Topsoil	12,733	sy	\$	5.00	\$ 63,664
609	4' Concrete Sidewalk	21,320	sf	\$	5.00	\$ 106,600
701	Turn Lanes and Median Openings	1,927	sy	\$	44.00	\$ 84,769
	P	aving Constr	uction (	Cost S	Subtotal:	\$ 1,262,551

Maj	or Construction Component Allow						
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	37,877		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	50,502		
	Roadway Drainage	Standard Internal System	30%	\$	378,765		
	Illumination		11%	\$	142,172		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	75,753		
	Sewer	Minor Adjustments	4%	\$	50,502		
	Establish Turf / Erosion Control		3%	\$	37,877		
	Basic Landscaping		3%	\$	37,877		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:		\$0	\$	-		
		Allowa	ance Subtotal:	\$	961,325		
	Paving and Allowance Subtotal:						
		Construction Contingency:	15%	\$	333,581		
		Construction C	ost TOTAL:	\$	2,558,000		

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,558,000
Engineering/Survey/Testing:		20%	\$ 511,600
Mobilization		5%	\$ 127,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 511,600
	Impact Fee Proj	ject Cost TOTAL:	\$ 3,709,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

10/2/2012 updated:

**Item Cost** 

**Project Information: A-9** Description: Project No. Name: Eagle Pkwy. (2) This project consists of the construction of a new

Quantity

Unit

Limits: W. City Limits to Henrietta Creek Rd. four-lane divided major arterial.

Impact Fee Class: MA4D-B **Ultimate Class:** Major Arterial Length (If): 2,870 Service Area(s): Α

No. Item Description

140.	item bescription		Qualitity	Oille	0::	11 1100	item oost
109	Unclassified Street Excavation		13,074	су	\$	10.50	\$ 137,282
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	19,771	sy	\$	3.00	\$ 59,313
309	11" Concrete Pavement		18,496	sy	\$	44.00	\$ 813,804
409	6" Curb & Gutter		11,480	lf	\$	6.50	\$ 74,620
509	4" Topsoil		13,712	sy	\$	5.00	\$ 68,561
609	4' Concrete Sidewalk		22,960	sf	\$	5.00	\$ 114,800
701	Turn Lanes and Median Openings		2,075	sy	\$	44.00	\$ 91,290
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 1,359,670
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			Alle	owance	Item Cost
	Prep ROW					3%	\$ 40,790
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 54,387
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 407,901
	Illumination					11%	\$ 153,109
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 81,580
	Sewer	Minor Adjustments				4%	54,387
	Establish Turf / Erosion Control					3%	\$ 40,790
	Basic Landscaping					3%	40,790
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile		:	\$150,000	\$ 150,000
	Other:					\$0	\$ -
				Allowa	ınce S	Subtotal:	\$ 1,023,734
			Paving an	d Allowa	nce S	Subtotal:	\$ 2,383,405

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,741,000
Engineering/Survey/Testing:		20%	\$ 548,200
Mobilization		5%	\$ 137,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 548,200
	Impact Fee Proj	ject Cost TOTAL:	\$ 3,974,000

Construction Contingency:

**Construction Cost TOTAL:** 

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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.

\$ 15%

357,511

2,741,000

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

<b>Project Informat</b>	ion:	Description:	Project No.	A-10
Name:	Henrietta Creek Rd.	This project consists o	f the widening o	of an existing
Limits:	W. City Limits to Independence Pkwy.	two-lane undivided cor	crete facility int	o a four-lane
	MA4D-B (1/2)	divided major arterial.	•	
Ultimate Class:	Major Arterial			
L (Ir. /IA) -	4.005			

Quantity Unit Unit Price

Length (If): 1,635 Service Area(s): A

No. Item Description

111	Unclassified Street Excavation		3,815	су	\$	10.50	\$	40,058
211	6" Lime Stabilization (with Lime @ 3	2#/sy)	5,632	sy	\$	3.00	\$	16,895
311	11" Concrete Pavement 5,268 sy			\$	44.00	\$	231,807	
411	6" Curb & Gutter		4,905	lf	\$	6.50	\$	31,883
511	4" Topsoil		5,904	sy	\$	5.00	\$	29,521
611	4' Concrete Sidewalk		6,540	sf	\$	5.00	\$	32,700
701	Turn Lanes and Median Openings		1,182	sy	\$	44.00	\$	52,007
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	434,869
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
$\sqrt{}$	Prep ROW					3%		13,046
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%		13,046
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%		17,395
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	130,461
	Illumination					11%	\$	48,969
l .	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\sqrt{}$	Water	Minor Adjustments				6%		26,092
	Sewer	Minor Adjustments				4%		17,395
V	Establish Turf / Erosion Control					3%		13,046
	Basic Landscaping					3%	\$	13,046
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	,	-
	Allowance Subtotal:							292,496
	Paving and Allowance Subtotal:							727,365
		Constru	uction Conti	-		15%		109,105
			Construc	ction C	ost T	TOTAL:	\$	837,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 837,000
Engineering/Survey/Testing:		20%	\$ 167,400
Mobilization		5%	\$ 41,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 83,700
	Impact Fee Projec	t Cost TOTAL:	\$ 1,130,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. A-11
Name:	Westport Pkwy. (1)		This project consists of the widening of
Limits:	IH-35W NBFR to 640' E. of IH-35W N	BFR	an existing two-lane undivided concrete
Impact Fee Class:	MA4D-B (1/2)		facility into a four-lane divided major
Ultimate Class:	Major Arterial		arterial.
Length (If):	640		
Service Area(s):	A		

No.	No.   Item Description   Quantity   Unit   Unit Price							Item Cost
111	Unclassified Street Excavation		1,493	су	\$	10.50	\$	15,680
211	6" Lime Stabilization (with Lime @ 32	2#/sy)	2,204	sy	\$	3.00	\$	6,613
311	11" Concrete Pavement		2,062	sy	\$	44.00	\$	90,738
411	6" Curb & Gutter		1,920	lf	\$	6.50	\$	12,480
511	4" Topsoil		2,311	sy	\$	5.00	\$	11,556
611	4' Concrete Sidewalk		2,560	sf	\$	5.00	\$	12,800
701	Turn Lanes and Median Openings		463	sy	\$	44.00	\$	20,357
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	170,224
Maio	or Construction Component Allowa	nces:	_	_		_		
	Item Description	Notes			All	owance	П	Item Cost
	Prep ROW					3%	\$	5,107
	Traffic Control	Construction Phase	Traffic Control			3%	\$	5,107
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	6,809
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	51,067
	Illumination					11%	\$	19,168
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	10,213
	Sewer	Minor Adjustments				4%		6,809
	Establish Turf / Erosion Control					3%		5,107
	Basic Landscaping					3%		5,107
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:							
Allowance Subtotal:						\$	364,494	
	Paving and Allowance Subtotal:						\$	534,718
		Constru	uction Conti			15%		80,208
			Construc					615,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 615,000
Engineering/Survey/Testing:		20%	\$ 123,000
Mobilization		5%	\$ 30,750
Previous City contribution			\$ -
Other	CFA# 2009023		\$ (218,004)
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 61,500
	Impact Fee Project C	ost TOTAL:	\$ 612,000

**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.

**Project Information:** 

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Description: Project No. A-12

Name: Westport Pkwy. (2)
Limits: 640' E. of IH-35W NBFR to Old Denton Rd.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial

Length (If): 2,640
Service Area(s): A

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-

lane divided major arterial.

	No.  Item Description   Quantity   Unit   Unit Price				it Price	Item Cost	
109	Unclassified Street Excavation		12,027	су	\$	10.50	\$ 126,280
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	18,187	sy	\$	3.00	\$ 54,560
309	11" Concrete Pavement		17,013	sy	\$	44.00	\$ 748,587
409	6" Curb & Gutter		10,560	lf	\$	6.50	\$ 68,640
509	4" Topsoil		12,613	sy	\$	5.00	\$ 63,067
609	4' Concrete Sidewalk		21,120	sf	\$	5.00	\$ 105,600
701	Turn Lanes and Median Openings		1,909	sy	\$	44.00	\$ 83,974
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$ 1,250,707
Majo	or Construction Component Allowa	_					
	Item Description	Notes			Alle	owance	Item Cost
1	Prep ROW					3%	\$ 37,521
√.	Traffic Control	Construction Phase	Traffic Control			3%	\$ 37,521
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 50,028
√.	Roadway Drainage	Standard Internal Sys	stem			30%	375,212
	Illumination					11%	\$ 140,839
	Special Drainage Structures	None Anticipated			\$	-	\$ -
1	Water	Minor Adjustments				6%	\$ 75,042
$\sqrt{}$	Sewer	Minor Adjustments				4%	\$ 50,028
√.	Establish Turf / Erosion Control					3%	\$ 37,521
√,	Basic Landscaping					3%	\$ 37,521
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile \$150,000				\$150,000	\$ 150,000
	Other:						
	Allowance Subtotal:					\$ 991,235	
			Paving an				\$ 2,241,942
		Constru	uction Conti	-		15%	\$ 336,291
			Construc	ction C	ost 7	ΓΟTAL:	\$ 2,579,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,579,000
Engineering/Survey/Testing:		20%	\$ 515,800
Mobilization		5%	\$ 128,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 257,900
	\$ 3,482,000		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:

Westport Pkwy. (3)

Cold Denton Rd. to Future N. Beach St. existing two-lane undivided asphalt facility into a lmpact Fee Class:

MA4D-B

Description:

Project No. A-13

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Quantity

Unit

Ultimate Class: Major Arterial

Length (If): 2,655 Service Area(s): A

No. Item Description

109	Unclassified Street Excavation		12,095	су	\$	10.50	\$	126,998
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	18,290	sy	\$	3.00	\$	54,870
309	9 11" Concrete Pavement 17,110 sy			\$	44.00	\$	752,840	
409	6" Curb & Gutter		10,620	lf	\$	6.50	\$	69,030
509	4" Topsoil		12,685	sy	\$	5.00	\$	63,425
609	4' Concrete Sidewalk		21,240	sf	\$	5.00	\$	106,200
701	Turn Lanes and Median Openings		1,919	sy	\$	44.00	\$	84,451
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	1,257,814
Majo	or Construction Component Allowa	inces:						
	Item Description	Notes			All	owance		Item Cost
V	Prep ROW					3%		37,734
	Traffic Control	Construction Phase	Traffic Control			3%	\$	37,734
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	50,313
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	377,344
1	Illumination					11%	\$	141,639
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	75,469
	Sewer	Minor Adjustments				4%		50,313
	Establish Turf / Erosion Control					3%		37,734
$\sqrt{}$	Basic Landscaping					3%		37,734
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:				\$0	\$	-	
	Allowance Subtotal:						\$	1,246,015
			Paving an					2,503,828
		Constru	uction Conti			15%	-	375,574
			Construc	ction C	ost	TOTAL:	\$	2,880,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,880,000
Engineering/Survey/Testing:		20%	\$ 576,000
Mobilization		5%	\$ 144,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 288,000
	Impact Fee Project	Cost TOTAL:	\$ 3,888,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10/2/2012 updated:

**Item Cost** 

**Project Information:** A-14 Description: Project No. Name: Westport Pkwy. (4) This project consists of the construction of a new

Quantity

Unit

Limits: Future N. Beach St. to Alta Vista Rd. four-lane divided major arterial.

Impact Fee Class: MA4D-B **Ultimate Class:** Major Arterial

Length (If): 2,155 Service Area(s): Α

No. Item Description

0.047		•		_	
9,817	су	\$	10.50	\$	103,081
14,846	sy	\$	3.00	\$	44,537
13,888	sy	\$	44.00	\$	611,062
8,620	lf	\$	6.50	\$	56,030
10,296	sy	\$	5.00	\$	51,481
17,240	sf	\$	5.00	\$	86,200
1,558	sy	\$	44.00	\$	68,547
ving Const	ruction (	Cost S	Subtotal:	\$	1,020,937
		Alle	owance		Item Cost
			3%	\$	30,628
			0%	\$	-
with Bike Lanes			4%	\$	40,837
stem					306,281
			11%	\$	114,965
		\$	-	\$	-
				\$	61,256
				\$	40,837
				\$	30,628
				\$	30,628
				\$	-
Other:			T -	\$	-
	Allowa	nce S	Subtotal:	\$	656,062
					1,676,999
	-				251,550
Construc	ction C	ost 7	ΓΟΤAL:	\$	1,929,000
	14,846 13,888 8,620 10,296 17,240 1,558 ving Constr	14,846 sy 13,888 sy 8,620 lf 10,296 sy 17,240 sf 1,558 sy ving Construction C	14,846 sy \$ 13,888 sy \$ 8,620 lf \$ 10,296 sy \$ 17,240 sf \$ 1,558 sy \$  ving Construction Cost \$  Allowance \$  Paving and Allowance \$ section Contingency:	14,846 sy \$ 3.00 13,888 sy \$ 44.00 8,620 If \$ 6.50 10,296 sy \$ 5.00 17,240 sf \$ 5.00 1,558 sy \$ 44.00  viring Construction Cost Subtotal:  Allowance  with Bike Lanes stem  Allowance 3% 0% 4% 3% 4% 3% \$0 4% 3% \$0 4% 3% \$0 \$0 Allowance Subtotal:  Paving and Allowance Subtotal: action Contingency: 15%	14,846 sy \$ 3.00 \$ 13,888 sy \$ 44.00 \$ 8,620 If \$ 6.50 \$ 10,296 sy \$ 5.00 \$ 17,240 sf \$ 5.00 \$ 1,558 sy \$ 44.00 \$  ving Construction Cost Subtotal: \$  Allowance \$  with Bike Lanes stem 30% \$  6% \$ 4% \$ 30% \$ 11% \$ \$  Allowance Subtotal: \$

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,929,000
Engineering/Survey/Testing:		20%	\$ 385,800
Mobilization		5%	\$ 96,450
Previous City contribution			\$ -
Other	CFA# 2005055		\$ (187,120)
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 385,800
	Impact Fee Project C	ost TOTAL:	\$ 2,610,000

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.

Service Area(s):

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	A-15
Name:	Westport Pkwy. (5)	This project consists of	f the widening	of an existing
Limits:	Alta Vista Rd. to Haslet-Roanoke Rd.	two-lane undivided cor	ncrete facility in	to a four-lane
Impact Fee Class:	MA4D-B (1/2)	divided major arterial.	•	
Ultimate Class:	Major Arterial	•		
Length (If):	1,165			

Roa	adway Construction Cost Pro	ojection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		2,718	су	\$	10.50	\$	28,543
211	6" Lime Stabilization (with Lime @ 3	32#/sy)	4,013	sy	\$	3.00	\$	12,038
311	11" Concrete Pavement		3,754	sy	\$	44.00	\$	165,171
411	6" Curb & Gutter		3,495	lf	\$	6.50	\$	22,718
511	4" Topsoil		4,207	sy	\$	5.00	\$	21,035
611	4' Concrete Sidewalk		4,660	sf	\$	5.00	\$	23,300
701	Turn Lanes and Median Openings		842	sy	\$	44.00	\$	37,057
		Pa	aving Constr	uction (	Cost S	Subtotal:	\$	309,861
Majo	or Construction Component Allow	ances:						
	14 B 141							
	Item Description	Notes			Allo	owance		Item Cost
<b>√</b>	Prep ROW	Notes			Allo	3%		Item Cost 9,296
√ √	Prep ROW Traffic Control	Notes  Construction Phase	Traffic Control		Allo		-	
√ √ √	Prep ROW				Allo	3%	\$	9,296
i i	Prep ROW Traffic Control	Construction Phase	with Bike Lanes		Allo	3% 3%	\$	9,296 9,296
V	Prep ROW Traffic Control Pavement Markings/Markers	Construction Phase Pavement Markings	with Bike Lanes		Allo	3% 3% 4%	\$ \$ \$	9,296 9,296 12,394
1	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage	Construction Phase Pavement Markings	with Bike Lanes		Allo	3% 3% 4% 30%	\$ \$ \$	9,296 9,296 12,394 92,958
1	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination	Construction Phase Pavement Markings Standard Internal Sy	with Bike Lanes			3% 3% 4% 30%	\$ \$ \$ \$ \$	9,296 9,296 12,394 92,958
1	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures	Construction Phase Pavement Markings Standard Internal Sy None Anticipated	with Bike Lanes			3% 3% 4% 30% 11%	\$ \$ \$ \$ \$ \$ \$	9,296 9,296 12,394 92,958 34,893
	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water	Construction Phase Pavement Markings Standard Internal Sy None Anticipated Minor Adjustments	with Bike Lanes			3% 3% 4% 30% 11% - 6%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,296 9,296 12,394 92,958 34,893 - 18,592
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water Sewer	Construction Phase Pavement Markings Standard Internal Sy None Anticipated Minor Adjustments	with Bike Lanes			3% 3% 4% 30% 11% - 6% 4%	\$ \$ \$ \$ \$ \$ \$ \$ \$	9,296 9,296 12,394 92,958 34,893 - 18,592 12,394

	Paving and Allowa	\$ 518,276	
	Construction Contingency:	15%	\$ 77,741
	Construction Co	ost TOTAL:	\$ 597,000
Impact Fee Project Cost Summary			

Item Description	Notes:	Allowance	tem Cost
Construction:		-	\$ 597,000
Engineering/Survey/Testing:		20%	\$ 119,400
Mobilization		5%	\$ 29,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 59,700
	Impact Fee F	Project Cost TOTAL:	\$ 806,000

**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.

Other:

208,415

**Allowance Subtotal:** 

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. A-16
Name: Westport Pkwy. (6) This project consists of the

Limits: 495' NW of SH 170 WBFR to SH 170 WBFR

construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.
Ultimate Class: Major Arterial

Length (If): 495 Service Area(s): A

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation	2,255	су	\$	10.50	\$	23,678
209	6" Lime Stabilization (with Lime @ 32#/sy)	3,410	sy	\$	3.00	\$	10,230
309	11" Concrete Pavement	3,190	sy	\$	44.00	\$	140,360
409	6" Curb & Gutter	1,980	lf	\$	6.50	\$	12,870
509	4" Topsoil	2,365	sy	\$	5.00	\$	11,825
609	4' Concrete Sidewalk	3,960	sf	\$	5.00	\$	19,800
701	Turn Lanes and Median Openings	358	sy	\$	44.00	\$	15,745
						•	004 500

Paving Construction Cost Subtotal: \$ 234,508

Maj	or Construction Component Allow	ances:		
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 7,035
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 9,380
	Roadway Drainage	Standard Internal System	30%	\$ 70,352
	Illumination		11%	\$ 26,407
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 14,070
	Sewer	Minor Adjustments	4%	\$ 9,380
	Establish Turf / Erosion Control		3%	\$ 7,035
	Basic Landscaping		3%	\$ 7,035
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:		\$0	\$ -
		Allowa	ince Subtotal:	\$ 150,696
		Paving and Allowa		\$ 385,204
		Construction Contingency:	15%	\$ 57,781
		Construction C	ost TOTAL:	\$ 443,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	443,000			
Engineering/Survey/Testing:		20%	\$	88,600			
Mobilization		5%	\$	22,150			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	88,600			
	Impact Fee Pro	ject Cost TOTAL:	\$	642,000			

**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.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. A-17

Name: Westport Pkwy. (7) This project consists of the

Limits: SH 170 EBFR to Existing Westport Pkwy. construction of a new four-lane divided

Quantity

Unit

Impact Fee Class: MA4D-B major arterial.
Ultimate Class: Major Arterial

Length (If): 2,105 Service Area(s): A

No. Item Description

109	Unclassified Street Excavation		9,589	су	\$	10.50	\$	100,689
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	14,501	sy	\$	3.00	\$	43,503
309	11" Concrete Pavement		13,566	sy	\$	44.00	\$	596,884
409	6" Curb & Gutter		8,420	lf	\$	6.50	\$	54,730
509	4" Topsoil		10,057	sy	\$	5.00	\$	50,286
609	4' Concrete Sidewalk		16,840	sf	\$	5.00	\$	84,200
701	Turn Lanes and Median Openings		1,522	sy	\$	44.00	\$	66,957
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	997,250
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		29,917
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%		39,890
	Roadway Drainage	Standard Internal Sy	stem			30%		299,175
	Illumination					11%	\$	112,298
l .	Special Drainage Structures	None Anticipated			\$	-	\$	-
√.	Water	Minor Adjustments				6%		59,835
	Sewer	Minor Adjustments				4%		39,890
√,	Establish Turf / Erosion Control					3%		29,917
√	Basic Landscaping					3%		29,917
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0	_	-
	Allowa			nce S	Subtotal:	\$	640,840	
						_		
			Paving an					1,638,089
		Constru	uction Conti			15%	-	245,713
	Construction Cost TOTAL:						\$	1,884,000

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	1,884,000		
Engineering/Survey/Testing:		20%	\$	376,800		
Mobilization		5%	\$	94,200		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	376,800		
	Impact Fee Proje	ect Cost TOTAL:	\$	2,732,000		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: A-18 Project No. Name: Westport Pkwy. (8)

Limits: 400' E of Park Vista Blvd. to 1370' W of Independence Pkwy.

Impact Fee Class: MA4D-B (1/2) This project consists of the widening of an existing **Ultimate Class:** Major Arterial two-lane undivided concrete facility into a four-lane

Length (If): 1,940 divided major arterial.

Service Area(s): Α

No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
111	11 Unclassified Street Excavation 4,527 cy				\$	10.50	\$	47,530
211	1 6" Lime Stabilization (with Lime @ 32#/sy) 6,682 sy				\$	3.00	\$	20,047
311	11" Concrete Pavement		6,251	sy	\$	44.00	\$	275,049
411	6" Curb & Gutter		5,820	lf	\$	6.50	\$	37,830
511	4" Topsoil		7,006	sy	\$	5.00	\$	35,028
611	4' Concrete Sidewalk		7,760	sf	\$	5.00	\$	38,800
701	Turn Lanes and Median Openings		1,402	sy	\$	44.00	\$	61,708
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	515,992
Mois	or Construction Component Allows	20001	_	_	_	_		
Iviajo	or Construction Component Allowa Item Description	Notes			l Alle	owance		Item Cost
V	Prep ROW	110100			7311	3%	\$	15,480
Ì	Traffic Control	Construction Phase	Traffic Control			3%		15,480
Ì	Pavement Markings/Markers	Pavement Markings				4%	-	20,640
	Roadway Drainage	Standard Internal Sy				30%	-	154,797
	Illumination	,				11%	-	58,104
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments			·	6%	\$	30,959
	Sewer	Minor Adjustments				4%	\$	20,640
	Establish Turf / Erosion Control					3%	\$	15,480
	Basic Landscaping					3%	\$	15,480
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:				\$0	\$	-	
	Allowance Subtotal:					\$	347,060	
						_	_	
			Paving an					863,051
		Constru	iction Conti			15%		129,458
			Construc	ction C	ost T	TOTAL:	\$	993,000

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	993,000		
Engineering/Survey/Testing:		20%	\$	198,600		
Mobilization		5%	\$	49,650		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	99,300		
	Impact Fee Pro	ject Cost TOTAL:	\$	1,341,000		

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.

# City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	ion:	Description:	Project No.	A-19, D-1				
Name:	Timberland Blvd. (1)	This completed project consisted of the						
Limits: Beach St. to 425' E of Lillybrook Ln. construction of a four-lane divided major								
Impact Fee Class:	MA4D-B	The City contributed \$544,917 from the 2008 Bond						
<b>Ultimate Class:</b>	Major Arterial	Program						
Length (If):	2,055							
Service Area(s):	A, D							

Impact Fee Project Cost Summary					
Item Description	Notes:	Allowance		Item Cost	
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$	544,917	
	Impact Fee Project C	ost TOTAL:	\$	544,917	
	Impact Fee Project Cost TOTAL:				

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

1,459,000

Project Information:

Name:

Limits:

MA4D-B

Major Arterial

Description:

Project No.

A-20, D-2

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Quantity

Unit

**Construction Cost TOTAL:** 

Length (If): 1,600 Service Area(s): A, D

No. Item Description

109	Unclassified Street Excavation		7,289	су	\$	10.50	\$	76,533
209	09 6" Lime Stabilization (with Lime @ 32#/sy)			sy	\$	3.00	\$	33,067
309				sy	\$	44.00	\$	453,689
409	6" Curb & Gutter		6,400	lf	\$	6.50	\$	41,600
509	4" Topsoil		7,644	sy	\$	5.00	\$	38,222
609	4' Concrete Sidewalk		12,800	sf	\$	5.00	\$	64,000
701	Turn Lanes and Median Openings		1,157	sy	\$	44.00	\$	50,893
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	758,004
Majo	or Construction Component Allowa	inces:	_					
	Item Description	Notes			Allo	owance		Item Cost
V	Prep ROW					3%	\$	22,740
	Traffic Control	Construction Phase	Traffic Control			3%	\$	22,740
	Pavement Markings/Markers	Pavement Markings with Bike Lanes				4%	\$	30,320
	Roadway Drainage	Standard Internal System				30%	\$	227,401
	Illumination					11%	\$	85,357
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	45,480
	Sewer	Minor Adjustments				4%	\$	30,320
	Establish Turf / Erosion Control					3%	\$	22,740
	Basic Landscaping					3%	\$	22,740
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
Allowance Subtotal:							\$	509,839
	Paving and Allowance Subtotal:							1,267,844
Construction Contingency: 15%						\$	190,177	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,459,000			
Engineering/Survey/Testing:		20%	\$	291,800			
Mobilization		5%	\$	72,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	145,900			
	\$	1,970,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. A-21, D-3

Name: Timberland Blvd. (3) This project consists of the construction of a new

Limits: Caylor Rd. To Park Vista Blvd. four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial

Length (If): 1,515 Service Area(s): A, D

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation	6,902	су	\$	10.50	\$	72,468
209	6" Lime Stabilization (with Lime @ 32#/sy)	10,437	sy	\$	3.00	\$	31,310
309	11" Concrete Pavement	9,763	sy	\$	44.00	\$	429,587
409	6" Curb & Gutter	6,060	lf	\$	6.50	\$	39,390
509	4" Topsoil	7,238	sy	\$	5.00	\$	36,192
609	4' Concrete Sidewalk	12,120	sf	\$	5.00	\$	60,600
701	Turn Lanes and Median Openings	1,095	sy	\$	44.00	\$	48,190
Paving Construction Cost Subtotal: \$							717,735

Mai	Major Construction Component Allowances:								
maj	Item Description	Notes	Allowance	П	Item Cost				
V	Prep ROW		3%	\$	21,532				
	Traffic Control	None Anticipated	0%	\$	-				
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	28,709				
	Roadway Drainage	Standard Internal System	30%	\$	215,321				
	Illumination		11%	\$	80,822				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
	Water	Minor Adjustments	6%	\$	43,064				
	Sewer	Minor Adjustments	4%	\$	28,709				
	Establish Turf / Erosion Control		3%	\$	21,532				
	Basic Landscaping		3%	\$	21,532				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:		\$0	\$	-				
		Allowa	ance Subtotal:	\$	461,222				
,	\$	1,178,958							
	\$	176,844							
		Construction C	ost TOTAL:	\$	1,356,000				

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,356,000			
Engineering/Survey/Testing:		20%	\$	271,200			
Mobilization		5%	\$	67,800			
Previous City contribution			\$	-			
Other	CFA# 2005072		\$	(395,516)			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	271,200			
	\$	1,571,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. A-22, D-5

Name: Timberland Blvd. (5) This project consists of the

Limits: 390' E of Harvest Oaks Dr. to E. City Limits construction of a new four-lane divided

Quantity

Unit

Impact Fee Class: MA4D-B major arterial.
Ultimate Class: Major Arterial

Length (If): 535 Service Area(s): A, D

No. Item Description

109	09 Unclassified Street Excavation 2,437 cy			су	\$	10.50	\$	25,591
209	6" Lime Stabilization (with Lime @ 32#/sy) 3,686 sy			sy	\$	3.00	\$	11,057
309	11" Concrete Pavement		3,448	sy	\$	44.00	\$	151,702
409	6" Curb & Gutter		2,140	lf	\$	6.50	\$	13,910
509	4" Topsoil		2,556	sy	\$	5.00	\$	12,781
609	4' Concrete Sidewalk		4,280	sf	\$	5.00	\$	21,400
701	Turn Lanes and Median Openings		387	sy	\$	44.00	\$	17,017
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$	253,458
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	7,604
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	10,138
	Roadway Drainage	Standard Internal System				30%	\$	76,037
	Illumination					11%	\$	28,541
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	15,207
	Sewer					4%		10,138
	Establish Turf / Erosion Control					3%		7,604
	Basic Landscaping					3%	\$	7,604
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	_	-
Allowance Subtotal:							\$	162,874
Paving and Allowance Subtotal:							\$	416,332
Construction Contingency: 15%							\$	62,450
Construction Cost TOTAL:						\$	479,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	479,000			
Engineering/Survey/Testing:		20%	\$	95,800			
Mobilization		5%	\$	23,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	95,800			
	\$	695,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Old Denton Rd. (1)
Limits:
Westport Pkwy. to SH 170 WB
Impact Fee Class:
MA4D-B

Description:
Project No.
A-23

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Ultimate Class: Major Arterial
Length (If): 2,740
Service Area(s): A

209 6" Lime Stabilization (with Lime @ 32#/sy)	No.   Item Description   Quantity   Unit   Unit Price						Item Cost		
11   Concrete Pavement	109	Unclassified Street Excavation		12,482	су	\$	10.50	\$	131,063
409   6" Curb & Gutter   10,960   If   \$ 6.50   \$ 71,240     509   4" Topsoil   13,091   sy   \$ 5.00   \$ 65,456     609   4' Concrete Sidewalk   21,920   sf   \$ 5.00   \$ 109,600     701   Turn Lanes and Median Openings   1,981   sy   \$ 44.00   \$ 87,155	209	6" Lime Stabilization (with Lime @ 3	32#/sy)	18,876	sy	\$	3.00	\$	56,627
13,091   sy   \$ 5.00   \$ 65,456	309	11" Concrete Pavement		17,658	sy	\$	44.00	\$	776,942
4' Concrete Sidewalk   21,920   sf   \$ 5.00   \$ 109,600     Turn Lanes and Median Openings   1,981   sy   \$ 44.00   \$ 87,155     Paving Construction Cost Subtotal: \$ 1,298,083     Major Construction Component Allowances:	409	6" Curb & Gutter		10,960	lf	\$	6.50	\$	71,240
Turn Lanes and Median Openings	509	4" Topsoil		13,091	sy	\$	5.00	\$	65,456
Paving Construction Cost Subtotal:         1,298,083           Major Construction Component Allowances:         Item Description         Notes         Allowance         Item Cost           √ Prep ROW         3%         38,942           √ Traffic Control         3%         38,942           √ Pavement Markings/Markers         Pavement Markings with Bike Lanes         4%         51,923           √ Roadway Drainage         Standard Internal System         30%         \$ 389,425           √ Illumination         11%         \$ 146,174           Special Drainage Structures         None Anticipated         \$ -         \$ -           √ Water         Minor Adjustments         6%         \$ 77,885           √ Establish Turf / Erosion Control         3%         \$ 38,942           √ Intersections (Signal, Roundabout, etc.)         Assume Improvement per Half Mile         \$150,000         \$ 150,000           Other:         \$0         \$ -         \$ -         \$ -	609	4' Concrete Sidewalk		21,920	sf	\$	5.00	\$	109,600
Major Construction Component Allowances:Item DescriptionNotesAllowanceItem Cost√ Prep ROW3%\$ 38,942√ Traffic Control3%\$ 38,942√ Pavement Markings/MarkersPavement Markings with Bike Lanes4%\$ 51,923√ Roadway DrainageStandard Internal System30%\$ 389,425√ Illumination11%\$ 146,174Special Drainage StructuresNone Anticipated\$ -\$ -√ WaterMinor Adjustments6%\$ 77,885√ SewerMinor Adjustments4%\$ 51,923√ Establish Turf / Erosion Control3%\$ 38,942√ Intersections (Signal, Roundabout, etc.)Assume Improvement per Half Mile\$150,000\$ 150,000Other:\$0\$ -	701	Turn Lanes and Median Openings		,		т .		-	87,155
Item Description         Notes         Allowance         Item Cost           √ Prep ROW         3%         \$ 38,942           √ Traffic Control         3%         \$ 38,942           √ Pavement Markings/Markers         Pavement Markings with Bike Lanes         4%         \$ 51,923           √ Roadway Drainage         Standard Internal System         30%         \$ 389,425           √ Illumination         11%         \$ 146,174           Special Drainage Structures         None Anticipated         \$ -           √ Water         Minor Adjustments         6%         \$ 77,885           √ Sewer         Minor Adjustments         4%         \$ 51,923           √ Establish Turf / Erosion Control         3%         \$ 38,942           √ Intersections (Signal, Roundabout, etc.)         Assume Improvement per Half Mile         \$150,000         \$ 150,000           Other:         \$ 0         \$ -         \$ -			Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,298,083
Item Description         Notes         Allowance         Item Cost           √ Prep ROW         3%         \$ 38,942           √ Traffic Control         3%         \$ 38,942           √ Pavement Markings/Markers         Pavement Markings with Bike Lanes         4%         \$ 51,923           √ Roadway Drainage         Standard Internal System         30%         \$ 389,425           √ Illumination         11%         \$ 146,174           Special Drainage Structures         None Anticipated         \$ -           √ Water         Minor Adjustments         6%         \$ 77,885           √ Sewer         Minor Adjustments         4%         \$ 51,923           √ Establish Turf / Erosion Control         3%         \$ 38,942           √ Intersections (Signal, Roundabout, etc.)         Assume Improvement per Half Mile         \$150,000         \$ 150,000           Other:         \$ 0         \$ -         \$ -									
√ Prep ROW         3%         \$ 38,942           √ Traffic Control         3%         \$ 38,942           √ Pavement Markings/Markers         Pavement Markings with Bike Lanes         4%         \$ 51,923           √ Roadway Drainage         Standard Internal System         30%         \$ 389,425           √ Illumination         11%         \$ 146,174           Special Drainage Structures         None Anticipated         \$ -           √ Water         Minor Adjustments         6%         \$ 77,885           √ Sewer         Minor Adjustments         4%         \$ 51,923           √ Establish Turf / Erosion Control         3%         \$ 38,942           √ Intersections (Signal, Roundabout, etc.)         Assume Improvement per Half Mile         \$150,000         \$ 150,000           Other:         \$ 0         \$ 150,000         \$ 150,000	Majo	or Construction Component Allow	ances:						
<ul> <li>√ Traffic Control</li> <li>√ Pavement Markings/Markers</li> <li>√ Roadway Drainage</li> <li>√ Illumination</li> <li>Special Drainage Structures</li> <li>√ Water</li> <li>√ Sewer</li> <li>√ Establish Turf / Erosion Control</li> <li>√ Basic Landscaping</li> <li>✓ Intersections (Signal, Roundabout, etc.)</li> <li>Other:</li> <li>Construction Phase Traffic Control</li> <li>Assume Improvement per Half Mile</li> <li>33%</li> <li>\$ 38,942</li> <li>\$ 51,923</li> <li>\$ 77,885</li> <li>\$ 77,885</li> <li>\$ 38,942</li> <li>\$ 146,174</li> <li>\$ 146,174</li> <li>\$ 146,174</li> <li>\$ 146,174</li> <li>\$ 146,174</li> <li>\$ 177,885</li> <li>\$ 38,942</li> <li>\$ 38,942</li> <li>\$ 38,942</li> <li>\$ 38,942</li> <li>\$ 150,000</li> <li>\$ 150,000</li> <li>\$ 150,000</li> <li>\$ 150,000</li> </ul>		Item Description	Notes			Alle	owance		Item Cost
√ Pavement Markings/Markers       Pavement Markings with Bike Lanes       4%       \$ 51,923         √ Roadway Drainage       Standard Internal System       30%       \$ 389,425         √ Illumination       11%       \$ 146,174         Special Drainage Structures       None Anticipated       \$ -         √ Water       Minor Adjustments       6%       \$ 77,885         √ Sewer       Minor Adjustments       4%       \$ 51,923         √ Establish Turf / Erosion Control       3%       \$ 38,942         √ Intersections (Signal, Roundabout, etc.)       Assume Improvement per Half Mile       \$150,000       \$ 150,000         Other:       \$ 0       \$ -	√.	•							38,942
√ Roadway Drainage         Standard Internal System         30%         \$ 389,425           √ Illumination         11%         \$ 146,174           Special Drainage Structures         None Anticipated         \$ -           √ Water         Minor Adjustments         6%         \$ 77,885           √ Sewer         Minor Adjustments         4%         \$ 51,923           √ Establish Turf / Erosion Control         3%         \$ 38,942           √ Intersections (Signal, Roundabout, etc.)         Assume Improvement per Half Mile         \$150,000         \$ 150,000           Other:         \$ 0         \$ -	√.	Traffic Control	Construction Phase	Traffic Control			3%	\$	38,942
✓ Illumination       11%       \$ 146,174         Special Drainage Structures       None Anticipated       \$ -         ✓ Water       Minor Adjustments       6%       77,885         ✓ Sewer       Minor Adjustments       4%       \$ 51,923         ✓ Establish Turf / Erosion Control       3%       \$ 38,942         ✓ Intersections (Signal, Roundabout, etc.)       Assume Improvement per Half Mile       \$150,000       \$ 150,000         Other:       \$ 0       \$ 0       \$ 0	√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	51,923
Special Drainage Structures  Vater  Vater  Minor Adjustments  Minor Adjustments  Minor Adjustments  Minor Adjustments  Minor Adjustments  Sewer  Vater  Minor Adjustments  Minor Adjust		Roadway Drainage	Standard Internal Sy	stem			30%	\$	389,425
√ Water         Minor Adjustments         6%         \$ 77,885           √ Sewer         Minor Adjustments         4%         \$ 51,923           √ Establish Turf / Erosion Control         3%         \$ 38,942           √ Basic Landscaping         3%         \$ 38,942           √ Intersections (Signal, Roundabout, etc.)         Assume Improvement per Half Mile         \$150,000         \$ 150,000           Other:         \$ 50         \$ 150,000         \$ 150,000         \$ 150,000		Illumination					11%	\$	146,174
√ Sewer         Minor Adjustments         4%         \$ 51,923           √ Establish Turf / Erosion Control         3%         \$ 38,942           √ Basic Landscaping         3%         \$ 38,942           √ Intersections (Signal, Roundabout, etc.)         Assume Improvement per Half Mile         \$150,000           Other:         \$ 51,923         \$ 38,942		Special Drainage Structures	None Anticipated			\$	-	\$	-
<ul> <li>✓ Establish Turf / Erosion Control</li> <li>✓ Basic Landscaping</li> <li>✓ Intersections (Signal, Roundabout, etc.)</li> <li>Other:</li> <li>Assume Improvement per Half Mile</li> <li>\$150,000</li> <li>\$150,000</li> <li>\$150,000</li> <li>\$150,000</li> </ul>		Water	Minor Adjustments				6%	\$	77,885
<ul> <li>✓ Basic Landscaping</li> <li>✓ Intersections (Signal, Roundabout, etc.)</li> <li>Other:</li> <li>Assume Improvement per Half Mile</li> <li>3%</li> <li>\$150,000</li> <li>\$150,000</li> <li>\$</li> <li>150,000</li> <li>\$</li> </ul>		Sewer	Minor Adjustments				4%	\$	51,923
√ Intersections (Signal, Roundabout, etc.) Assume Improvement per Half Mile \$150,000 \$ 150,000 \$		Establish Turf / Erosion Control					3%	\$	38,942
Other: \$0 \$		Basic Landscaping							38,942
		Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
Allowance Subtotal: \$ 1,023,100							\$	-	
	Allowance Subtotal:						\$	1,023,100	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,670,000			
Engineering/Survey/Testing:		20%	\$	534,000			
Mobilization		5%	\$	133,500			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	267,000			
	\$	3,605,000					

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

**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.

2,321,182

348,177

2,670,000

\$

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 A-24

 Name:
 N. Beach St. (1)
 This project consists of the construction of a new

Limits: Litsey Rd. to Eagle Pkwy. four-lane divided major arterial.

Impact Fee Class: MA4D
Ultimate Class: Major Arterial
Length (If): 3,300
Service Area(s): A

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Uni	it Price		Item Cost
108	Unclassified Street Excavation	14,667	су	\$	10.50	\$	154,000
208	6" Lime Stabilization (with Lime @ 32#/sy)	22,000	sy	\$	3.00	\$	66,000
308	11" Concrete Pavement	20,533	sy	\$	44.00	\$	903,467
408	6" Curb & Gutter	13,200	lf	\$	6.50	\$	85,800
508	4" Topsoil	16,500	sy	\$	5.00	\$	82,500
608	4' Concrete Sidewalk	26,400	sf	\$	5.00	\$	132,000
701	Turn Lanes and Median Openings	2,386	sy	\$	44.00	\$	104,968
	Paying Construction Cost Subtotal: \$						

		Cost Subtotal:	\$	1,528,734			
Maj	or Construction Component Allow	ances:					
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	45,862		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers		2%	\$	32,817		
	Roadway Drainage	Standard Internal System	30%	\$	458,620		
	Illumination		11%	\$	172,147		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	91,724		
	Sewer	Minor Adjustments	4%	\$	61,149		
	Establish Turf / Erosion Control		3%	\$	45,862		
	Basic Landscaping		3%	\$	45,862		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:		\$0	\$	-		
		Allowa	ance Subtotal:	\$	1,104,044		
	\$	2,632,778					
		Construction Contingency:			394,917		
		Construction C	ost TOTAL:	\$	3,028,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,028,000			
Engineering/Survey/Testing:		20%	\$	605,600			
Mobilization		5%	\$	151,400			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	605,600			
	\$	4,391,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:Description:Project No.A-25Name:N. Beach St. (2)This project consists of the construction of a new

Limits: Eagle Pkwy. to S. City Limits four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 1,840
Service Area(s): A

No.	Item Description	Quantity	Unit	Un	nit Price	Item Cost
109	Unclassified Street Excavation	8,382	су	\$	10.50	\$ 88,013
209	6" Lime Stabilization (with Lime @ 32#/sy)	12,676	sy	\$	3.00	\$ 38,027
309	11" Concrete Pavement	11,858	sy	\$	44.00	\$ 521,742
409	6" Curb & Gutter	7,360	lf	\$	6.50	\$ 47,840
509	4" Topsoil	8,791	sy	\$	5.00	\$ 43,956
609	4' Concrete Sidewalk	14,720	sf	\$	5.00	\$ 73,600
701	Turn Lanes and Median Openings	1,330	sy	\$	44.00	\$ 58,527
		Paving Cons	truction	Cost	Subtotal:	\$ 871,705
Maio	or Construction Component Allowances:			-		
	Item Description Notes			All	owance	Item Cost

Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	26,151		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	34,868		
	Roadway Drainage	Standard Internal System	30%	\$	261,512		
	Illumination		11%	\$	98,160		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	52,302		
	Sewer	Minor Adjustments	4%	\$	34,868		
	Establish Turf / Erosion Control		3%	\$	26,151		
	Basic Landscaping		3%	\$	26,151		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
	Other:		\$0	\$	-		
		Allowa	ınce Subtotal:	\$	560,164		
					1,431,869		
	Paving and Allowance Subtotal:						
	Construction Contingency: 15%						
		Construction C	ost TOTAL:	\$	1,647,000		

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,647,000				
Engineering/Survey/Testing:		20%	\$	329,400				
Mobilization		5%	\$	82,350				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	329,400				
	\$	2,388,000						

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 A-26

 Name:
 N. Beach St. (3)
 This project consists of the construction of a new six-lane divided principal arterial.

Impact Fee Class: P6D-B

Ultimate Class: Principal Arterial

Length (If): 1,115 Service Area(s): A

No.	No.   Item Description   Quantity   Unit   Unit Price						Item Cost	
113	Unclassified Street Excavation		6,814	су	\$	10.50	\$	71,546
213	6" Lime Stabilization (with Lime @ 3	2#/sy)	10,407	sy	\$	3.00	\$	31,220
313	11" Concrete Pavement		9,911	sy	\$	44.00	\$	436,089
413	6" Curb & Gutter		4,460	lf	\$	6.50	\$	28,990
513	4" Topsoil		5,079	sy	\$	5.00	\$	25,397
	4' Concrete Sidewalk		8,920	sf	\$	5.00	\$	44,600
701	Turn Lanes and Median Openings		806	sy	\$	44.00	\$	35,466
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	673,308
Majo	or Construction Component Allowa	inces:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		20,199
l .	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	26,932
√,	Roadway Drainage	Standard Internal Sys	stem			30%		201,992
√	Illumination					11%	\$	75,819
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
√,	Water	Minor Adjustments				6%		40,398
٧,	Sewer	Minor Adjustments				4%		26,932
1	Establish Turf / Erosion Control					3%		20,199
1	Basic Landscaping					3%	\$	20,199
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
Allowance Subtotal:							\$	432,673
						_	4.405.65.	
Paving and Allowance Subtotal:							1,105,981	
Construction Contingency: 15%						\$	165,897	
	Construction Cost TOTAL:						\$	1,272,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,272,000			
Engineering/Survey/Testing:		20%	\$	254,400			
Mobilization		5%	\$	63,600			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	254,400			
	\$	1,844,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. A-27, D-23

Name: N. Beach St. (4) This project consists of the

Limits: SH 170 EBFR to 410' N of Saratoga Downs construction of a new six-lane divided

Impact Fee Class: P6D-B principal arterial.

Ultimate Class: Principal Arterial

Length (If): 2,045 Service Area(s): A, D

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	it Price	Item Cost
113	Unclassified Street Excavation	12,497	су	\$	10.50	\$ 131,221
213	6" Lime Stabilization (with Lime @ 32#/sy)	19,087	sy	\$	3.00	\$ 57,260
313	11" Concrete Pavement	18,178	sy	\$	44.00	\$ 799,822
413	6" Curb & Gutter	8,180	lf	\$	6.50	\$ 53,170
513	4" Topsoil	9,316	sy	\$	5.00	\$ 46,581
613	4' Concrete Sidewalk	16,360	sf	\$	5.00	\$ 81,800
701	Turn Lanes and Median Openings	1,478	sy	\$	44.00	\$ 65,048
	Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 1,234,902

Majo	Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost			
	Prep ROW		3%	\$	37,047			
	Traffic Control	None Anticipated	0%	\$	-			
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	49,396			
	Roadway Drainage	Standard Internal System	30%	\$	370,470			
	Illumination		11%	\$	139,059			
	Special Drainage Structures	None Anticipated	\$ -	\$	-			
	Water	Minor Adjustments	6%	\$	74,094			
	Sewer	Minor Adjustments	4%	\$	49,396			
	Establish Turf / Erosion Control		3%	\$	37,047			
	Basic Landscaping		3%	\$	37,047			
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-			
	Other:		\$0	\$	-			
		Allowa	nce Subtotal:	\$	793,557			
	Paving and Allowance Subtotal:							
	Construction Contingency: 15%							
		Construction C	ost TOTAL:	\$	2,333,000			

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,333,000
Engineering/Survey/Testing:		20%	\$ 466,600
Mobilization		5%	\$ 116,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 466,600
	Impact Fee Proj	ect Cost TOTAL:	\$ 3,383,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. A-28, D-24

Name: N. Beach St. (5) This project consists of the

Limits: 410' N of Saratoga Downs Way to Timberland Blvd construction of two additional through

Quantity

Unit

Impact Fee Class: P6D (1/3) lanes within the existing median.

Ultimate Class: Principal Arterial

Length (If): 3,715 Service Area(s): A, D

No. Item Description

114	Unclassified Street Excavation		11,558	су	\$	10.50	\$	121,357
214	6" Lime Stabilization (with Lime @ 3	32#/sy)	11,145	sy	\$	3.00	\$	33,435
314	11" Concrete Pavement	10,319	sy	\$	44.00	\$	454,056	
414	6" Curb & Gutter		7,430	lf	\$	6.50	\$	48,295
514	4" Topsoil		11,558	sy	\$	5.00	\$	57,789
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		2,686	sy	\$	44.00	\$	118,168
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	833,099
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	24,993
	Traffic Control	Construction Phase	Traffic Control			3%	\$	24,993
	Pavement Markings/Markers					3%		24,993
	Roadway Drainage	None Anticipated				0%		-
	Illumination	None Anticipated				0%	\$	-
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	None Anticipated				0%	\$	-
	Sewer	None Anticipated				0%		-
$\sqrt{}$	Establish Turf / Erosion Control					3%		24,993
	Basic Landscaping					3%		24,993
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:							
	Allowance Subtotal:						\$	124,965
Paving and Allowance Subtotal:						958,064		
		Constru	uction Conti			15%	-	143,710
			Constru	ction C	ost 7	TOTAL:	\$	1,102,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,102,000
Engineering/Survey/Testing:		20%	\$ 220,400
Mobilization		5%	\$ 55,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project	Cost TOTAL:	\$ 1,378,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Independence Pkwy. (1)

N. City Limits to Henrietta Creek Rd.

Description:
Project No. A-29

This project consists of the construction of a new four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 6,090
Service Area(s): A

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	27,743	су	\$	10.50	\$ 291,305
209	6" Lime Stabilization (with Lime @ 32#/sy)	41,953	sy	\$	3.00	\$ 125,860
309	11" Concrete Pavement	39,247	sy	\$	44.00	\$ 1,726,853
409	6" Curb & Gutter	24,360	lf	\$	6.50	\$ 158,340
509	4" Topsoil	29,097	sy	\$	5.00	\$ 145,483
609	4' Concrete Sidewalk	48,720	sf	\$	5.00	\$ 243,600
701	Turn Lanes and Median Openings	4,403	sy	\$	44.00	\$ 193,713
		aving Constr	uction (	:net	Subtotal:	\$ 2 885 154

Paving Construction Cost Subtotal: \$ 2,885,154

Majo	or Construction Component Allow	ances:				
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	86,555	
	Traffic Control	None Anticipated	0%	\$	-	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	115,406	
	Roadway Drainage	Standard Internal System	30%	\$	865,546	
	Illumination		11%	\$	324,889	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	173,109	
	Sewer	Minor Adjustments	4%	\$	115,406	
	Establish Turf / Erosion Control		3%	\$	86,555	
	Basic Landscaping		3%	\$	86,555	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000	
	Other:		\$0	\$	-	
		Allowa	ance Subtotal:	\$	2,154,021	
	Paving and Allowance Subtotal:					
	Construction Contingency: 15%					
		Construction C	ost TOTAL:	\$	5,796,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,796,000
Engineering/Survey/Testing:		20%	\$ 1,159,200
Mobilization		5%	\$ 289,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,159,200
	Impact Fee Proj	ject Cost TOTAL:	\$ 8,404,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	A-30			
Name:	Park Vista Blvd. (1)	This project consists of the widening of an existing					
Limits:	Keller-Haslet Rd. to Timberland Blvd.	two-lane undivided cor	ncrete facility in	nto a four-lane			
Impact Fee Class:	MA4D-B (1/2)	divided major arterial.	_				
Ultimate Class:	Major Arterial	•					
Length (If):	2,965						
Service Area(s):	A						

No.	o.   Item Description   Quantity   Unit   Unit Price						Item Cost	
111	Unclassified Street Excavation	6,918 cy				10.50	\$	72,643
211	6" Lime Stabilization (with Lime @ 3	2#/sy) 10,213 sy				3.00	\$	30,638
311	11" Concrete Pavement		9,554	sy	\$	44.00	\$	420,371
411	6" Curb & Gutter		8,895	lf	\$	6.50	\$	57,818
511	4" Topsoil		10,707	sy	\$	5.00	\$	53,535
611	4' Concrete Sidewalk		11,860	sf	\$	5.00	\$	59,300
701	Turn Lanes and Median Openings		2,143	sy	\$	44.00	\$	94,312
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$	788,616
Majo	or Construction Component Allow							
	Item Description	Notes			Alle	owance		Item Cost
√.	Prep ROW					3%		23,658
	Traffic Control	Construction Phase	Traffic Control			3%		23,658
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%		31,545
√,	Roadway Drainage	Standard Internal Sy	stem			30%		236,585
	Illumination					11%	\$	88,804
١,	Special Drainage Structures	None Anticipated			\$	-	\$	-
√,	Water	Minor Adjustments				6%		47,317
√,	Sewer	Minor Adjustments				4%		31,545
√,	Establish Turf / Erosion Control					3%		23,658
٧,	Basic Landscaping					3%	-	23,658
√	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile \$150,000					\$	150,000
	Other:	\$0					\$	-
Allowance Subtotal:						\$	680,429	
Paving and Allowance Subtotal:							1,469,045	
		Constru	uction Conti			15%		220,357
			Construc	ction C	ost 7	ΓΟTAL:	\$	1,690,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,690,000
Engineering/Survey/Testing:		20%	\$ 338,000
Mobilization		5%	\$ 84,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 169,000
	Impact Fee Project C	ost TOTAL:	\$ 2,282,000

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area AA

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
AA-1	P6D (2/3)	Intermodal Pkwy.	FM 156 to Haslet County Line Rd	\$ 4,178,000
AA-2	P6D (1/2)	Cleveland-Gibbs Rd.	N. City Limits to IH-35W SBFR	\$ 1,049,000

TOTAL \$ 5,227,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Limits:
Impact Fee Class:

Description:
Project No.

AA-1

This project consists of the widening of an existing two-lane undivided concrete facility to a six-lane divided principal arterial.

Ultimate Class: Principal Arterial

Length (If): 3,705 Service Area(s): AA

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
117	Unclassified Street Excavation	17,084	су	\$	10.50	\$ 179,384
217	6" Lime Stabilization (with Lime @ 32#/sy)	22,848	sy	\$	3.00	\$ 68,543
317	11" Concrete Pavement	21,613	sy	\$	44.00	\$ 950,950
417	6" Curb & Gutter	11,115	lf	\$	6.50	\$ 72,248
517	4" Topsoil	14,614	sy	\$	5.00	\$ 73,071
617	4' Concrete Sidewalk	14,820	sf	\$	5.00	\$ 74,100
701	Turn Lanes and Median Openings	2,678	sy	\$	44.00	\$ 117,850
	Pa	aving Constr	uction (	Cost	Subtotal:	\$ 1,536,144
Maio	or Construction Component Allowances:					

Maj	or Construction Component Allowa	ances:					
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	46,084		
	Traffic Control	Construction Phase Traffic Control	3%	\$	46,084		
	Pavement Markings/Markers		2%	\$	32,976		
	Roadway Drainage	Standard Internal System	30%	\$	460,843		
	Illumination		11%	\$	172,981		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	92,169		
	Sewer	Minor Adjustments	4%	\$	61,446		
	Establish Turf / Erosion Control		3%	\$	46,084		
	Basic Landscaping		3%	\$	46,084		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:		\$0	\$	-		
		Allowa	ınce Subtotal:	\$	1,154,752		
	Paving and Allowance Subtotal:						
		Construction Contingency:	15%	\$	403,635		
		Construction C	ost TOTAL:	\$	3,095,000		

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	3,095,000				
Engineering/Survey/Testing:		20%	\$	619,000				
Mobilization		5%	\$	154,750				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	309,500				
	\$	4,178,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:		Description:	Project No. AA-2
Name: Cleveland-Gibbs Rd.			This project consists of the widening of
Limits:	N. City Limits to IH-35W SBFR		an existing four-lane undivided concrete
Impact Fee Class:	P6D (1/2)		facility to a six-lane divided principal
Ultimate Class:	Principal Arterial		arterial.
Length (If): 1,250			
Service Area(s):	AA		

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
115	Unclassified Street Excavation	3,958	су	\$	10.50	\$ 41,563
215	6" Lime Stabilization (with Lime @ 32#/sy)	5,833	sy	\$	3.00	\$ 17,500
315	11" Concrete Pavement	5,556	sy	\$	44.00	\$ 244,444
415	6" Curb & Gutter	2,500	lf	\$	6.50	\$ 16,250
515	4" Topsoil	4,792	sy	\$	5.00	\$ 23,958
615	4' Concrete Sidewalk	5,000	sf	\$	5.00	\$ 25,000
701	Turn Lanes and Median Openings	904	sy	\$	44.00	\$ 39,760
Paving Construction Cost Subtotal:						\$ 408,476

Majo	or Construction Component Allow	ances:	_	
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 12,254
	Traffic Control	Construction Phase Traffic Control	3%	\$ 12,254
	Pavement Markings/Markers		2%	\$ 8,769
	Roadway Drainage	Standard Internal System	30%	\$ 122,543
	Illumination		11%	\$ 45,997
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 24,509
	Sewer	Minor Adjustments	4%	\$ 16,339
	Establish Turf / Erosion Control		3%	\$ 12,254
	Basic Landscaping		3%	\$ 12,254
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:		\$0	\$ -
		Allowa	ınce Subtotal:	\$ 267,173
		Paving and Allowa		\$ 675,649
I		Construction Contingency:	15%	\$ 101,347
		Construction C	ost TOTAL:	\$ 777,000

Impact Fee Project Cost Sumi	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 777,000
Engineering/Survey/Testing:		20%	\$ 155,400
Mobilization		5%	\$ 38,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 77,700
	\$ 1,049,000		

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area B

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
B-1	MA4D-B	Eagle Pkwy.	W. City Limits to E. City Limits	\$ 12,769,000
B-2	M4U	Rancho Canyon Way (1)	Sendera Ranch Blvd. to Salida Rd.	\$ 9,470,000
B-3	M4U-B	Rancho Canyon Way (2)	80' E of Cabo St. to Future John Day Rd.	\$ 1,222,000
B-4	M4U	Avondale Haslet Rd. (1)	US 287 NBFR to Bates Aston Rd.	\$ 3,205,608
B-5	M4U	Avondale Haslet Rd. (2)	N. Willow Springs Rd. to Willow Springs Rd.	\$ 1,609,000
B-6	M4U	Avondale Haslet Rd. (3)	235' W. of Moonlake Way to Moonlake Way	\$ 165,000
B-7	M4U	Avondale Haslet Rd. (4)	Moonlake Way to Sendera Ranch Blvd.	\$ 1,808,000
B-8	M4U	Avondale Haslet Rd. (5)	Sendera Ranch Blvd. to Future Sendera Ranch Blvd.	\$ 943,000
B-9	M4U	Avondale Haslet Rd. (6)	Future Sendera Ranch Blvd. to E. City Limits	\$ 2,730,000
B-10	M4U-B	Blue Mound Rd.	Willow Springs Rd. to Future Wagley Robertson Rd.	\$ 5,181,000
B-11	P6D	Sendera Ranch Blvd. (1)	Future Eagle Pkwy. to Rancho Canyon Way	\$ 8,158,000
B-12	P6D	Sendera Ranch Blvd. (2)	Rancho Canyon Way to Suncatcher Way	\$ 4,846,000
B-13	P6D (1/3)	Sendera Ranch Blvd. (3)	Suncatcher Way to Snaffle Bit Trl.	\$ 1,354,000
B-14	P6D (2/3)	Sendera Ranch Blvd. (4)	Snaffle Bit Trl. to Mustang Ridge Dr.	\$ 2,071,000
B-15	P6D (1/3)	Sendera Ranch Blvd. (5)	Mustang Ridge Dr. to Diamondback Ln.	\$ 481,000
B-16	P6D (2/3)	Sendera Ranch Blvd. (6)	Diamondback Ln. to Future Sendera Ranch Blvd.	\$ 4,678,000
B-17	P6D	Sendera Ranch Blvd. (7)	Existing Sendera Ranch Blvd. to Future Avondale Haslet	\$ 1,849,000
B-18	P6D	Sendera Ranch Blvd. (8)	Future Avondale Haslet to Blue Mound Rd.	\$ 18,225,000
B-19	MA4D-B	John Day Rd. (1)	N. City Limits to Rancho Canyon Way	\$ 13,392,000
B-20	MA4D	John Day Rd. (2)	Rancho Canyon Way to S. City Limits	\$ 998,000
B-21	M4U-B	Willow Springs Rd. (1)	Avondale Haslet Rd. to 205' S. of Velda Kay Ln.	\$ 1,426,000
B-22	M4U-B	Willow Springs Rd. (2)	205' S. of Velda Kay Ln. to Blue Mound Rd.	\$ 6,462,000
B-23	M4U-B	Willow Springs Rd. (3)	Blue Mound Rd. to S. City Limits	\$ 4,628,000
B-24, C-14	MA4D	Wagley Robertson Rd. (1)	250' N. of US 287 to 125' N of Hawks Landing Rd.	\$ 7,067,000

TOTAL \$ 114,737,608

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. B-1

Name: Eagle Pkwy. This project consists of the construction of a new

Limits: W. City Limits to E. City Limits four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 8,940
Service Area(s): B, ETJ

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation	40,727	су	\$	10.50	\$	427,630
209	6" Lime Stabilization (with Lime @ 32#/sy)	61,587	sy	\$	3.00	\$	184,760
309	11" Concrete Pavement	57,613	sy	\$	44.00	\$	2,534,987
409	6" Curb & Gutter	35,760	lf	\$	6.50	\$	232,440
509	4" Topsoil	42,713	sy	\$	5.00	\$	213,567
609	4' Concrete Sidewalk	71,520	sf	\$	5.00	\$	357,600
701	Turn Lanes and Median Openings	6,463	sy	\$	44.00	\$	284,367
	Paving Construction Cost Subtotal: \$						4,235,350

Mai	or Construction Component Allow	ances:				
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	127,060	
	Traffic Control	None Anticipated	0%	\$	-	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	169,414	
	Roadway Drainage	Standard Internal System	30%	\$	1,270,605	
	Illumination		11%	\$	476,931	
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000	
	Water	Minor Adjustments	6%	\$	254,121	
	Sewer	Minor Adjustments	4%	\$	169,414	
	Establish Turf / Erosion Control		3%	\$	127,060	
	Basic Landscaping		3%	\$	127,060	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	450,000	
	Other:		\$0	\$	-	
		Allowa	ance Subtotal:	\$	3,421,667	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	1,148,552	
		Construction C	ost TOTAL:	\$	8,806,000	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	8,806,000				
Engineering/Survey/Testing:		20%	\$	1,761,200				
Mobilization		5%	\$	440,300				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,761,200				
	\$	12,769,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50 | \$

10/2/2012 updated:

**Item Cost** 

325,984

6,531,000

**Project Information: B-2** Description: Project No. Name: Rancho Canyon Way (1) This project consists of the construction of a new Limits: Sendera Ranch Blvd. to Salida Rd. four-lane undivided minor arterial.

Quantity

31,046

Unit

**Construction Cost TOTAL** 

Impact Fee Class: M4U **Ultimate Class:** Minor Arterial Length (If): 9,635

106 Unclassified Street Excavation

Service Area(s): В

No. Item Description

206	6" Lime Stabilization (with Lime @ 3	32#/sy)	61,022	sy	\$	3.00	\$	183,065
306	9" Concrete Pavement		58,881	sy	\$	36.00	\$	2,119,700
406	6" Curb & Gutter		19,270	lf	\$	6.50	\$	125,255
506	4" Topsoil		16,058	sy	\$	5.00	\$	80,292
606	II		77,080	sf	\$	5.00	\$	385,400
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	3,219,696
Mois		20000			_		_	
Majo	or Construction Component Allows Item Description	Notes			LΔII	owance		Item Cost
V	Prep ROW	140103			All	3%	\$	96,591
l '	Traffic Control	None Anticipated				0%		30,331
	Pavement Markings/Markers	None Anticipated				2%	φ	69,117
V	Roadway Drainage	Standard Internal Sy	stem			30%	\$	965,909
Ì	Illumination	Standard Internal by	Stern			11%		362,561
'	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments			*	6%	\$	193,182
Ż	Sewer	Minor Adjustments				4%		128,788
V	Establish Turf / Erosion Control					3%		96,591
	Basic Landscaping					3%		96,591
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	450,000
	Other:	·	•			\$0	\$	-
				Allowa	nce	Subtotal:	\$	2,459,329
			Daving on	al Allanna		Cubtotoli		F 070 00F
		Comoter	Paving and					5,679,025
		Constri	uction Conti	ngency:		15%	Ф	851,854

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,531,000
Engineering/Survey/Testing:		20%	\$ 1,306,200
Mobilization		5%	\$ 326,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,306,200
	\$ 9,470,000		

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 B-3

 Name:
 Rancho Canyon Way (2)
 This project consists of the construction of a new

Limits: 80' E of Cabo St. to Future John Day Ffour-lane undivided minor arterial.

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial
Length (If): 1,300
Service Area(s): B

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	4,333	су	\$	10.50	\$ 45,500
207	6" Lime Stabilization (with Lime @ 32#/sy)	8,522	sy	\$	3.00	\$ 25,567
307	9" Concrete Pavement	8,233	sy	\$	36.00	\$ 296,400
407	6" Curb & Gutter	2,600	lf	\$	6.50	\$ 16,900
507	4" Topsoil	1,878	sy	\$	5.00	\$ 9,389
607	4' Concrete Sidewalk	10,400	sf	\$	5.00	\$ 52,000
701	Turn Lanes and Median Openings	0				
	P	aving Constr	uction (	Cost	Subtotal:	\$ 445,756

Maj	or Construction Component Allow	ances:					
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	13,373		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	17,830		
	Roadway Drainage	Standard Internal System	30%	\$	133,727		
	Illumination		11%	\$	50,195		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	26,745		
	Sewer	Minor Adjustments	4%	\$	17,830		
	Establish Turf / Erosion Control		3%	\$	13,373		
	Basic Landscaping		3%	\$	13,373		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
	Other:		\$0	\$	-		
		Allowa	ınce Subtotal:	\$	286,446		
	\$	732,201					
	Construction Contingency: 15%						
		Construction C	ost TOTAL:	\$	843,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	843,000			
Engineering/Survey/Testing:		20%	\$	168,600			
Mobilization		5%	\$	42,150			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	168,600			
	\$	1,222,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

tion:	Description:	Project No.	B-4			
Avondale Haslet Rd. (1)	This project consists of the reconstruction of an					
US 287 NBFR to Bates Aston Rd.	existing two-lane up	ndivided asphalt f	acility into a			
M4U	four-lane undivided	minor arterial. TI	his facility will			
Minor Arterial			•			
4,230	contributed \$1,266.	088 and the City c	ontributed			
В		•				
	section from the water tower to east of the BN					
	RR tracks.					
	Avondale Haslet Rd. (1) US 287 NBFR to Bates Aston Rd. M4U Minor Arterial 4,230	Avondale Haslet Rd. (1)  US 287 NBFR to Bates Aston Rd.  M4U  Minor Arterial  4,230  B  This project consist existing two-lane undivided be constructed in two contributed \$1,266, \$1,173,443 to a sect tower. The City consection from the way	Avondale Haslet Rd. (1) US 287 NBFR to Bates Aston Rd. M4U Minor Arterial 4,230 B  This project consists of the reconstructed in two sections. Wall-contributed \$1,266,088 and the City contributed \$1,266,088 and the City contributed \$2,032,166 section from the water tower to east of the reconstructed existing two-lane undivided asphalt four-lane undivided minor arterial. The constructed in two sections. Wall-contributed \$1,266,088 and the City contributed \$2,032,166 section from the water tower to east of the reconstructed existing two-lane undivided asphalt four-lane undivided asphalt four-lane undivided asphalt four-lane undivided minor arterial. The constructed in two sections. Wall-lane undivided minor arterial. The constructed in two sections and the City contributed \$1,266,088 and the City contributed \$2,032,166 section from the water tower to east of the reconstructed in two sections.			

Impact Fee Project Cost Summar	у		
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 3,205,608
	Impact Fee Project C	ost TOTAL:	\$ 3,205,608

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information:		Description:	Project No. B-	-5			
Name:	Avondale Haslet Rd. (2)		This project consists of the				
Limits:	N. Willow Springs Rd. to Willow Spring	js Rd.	reconstruction of an existing two-lane				
Impact Fee Class:	M4U		undivided asphalt facility into a four-				
Ultimate Class:	Minor Arterial		lane undivided minor arterial. N	lote, this			
Length (If):	1,875		is the section between the jog in Willow				
Service Area(s):	В		Springs Rd.				

No.	Item Description		Quantity	Unit	Uni	it Price		Item Cost			
106	Unclassified Street Excavation		6,042	су	\$	10.50	\$	63,438			
206	6" Lime Stabilization (with Lime @ 3	32#/sy)	11,875	sy	\$	3.00	\$	35,625			
306	9" Concrete Pavement		11,458	sy	\$	36.00	\$	412,500			
406	6" Curb & Gutter		3,750	lf	\$	6.50	\$	24,375			
506	4" Topsoil		3,125	sy	\$	5.00	\$	15,625			
606	4' Concrete Sidewalk		15,000	sf	\$	5.00	\$	75,000			
701	Turn Lanes and Median Openings		0								
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	626,563			
Majo	or Construction Component Allow	ances:									
	Item Description	Notes			Allo	wance		Item Cost			
V	Prep ROW					3%	\$	18,797			
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$	18,797			
$\sqrt{}$	Pavement Markings/Markers					2%	\$	13,450			
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	187,969			
	Illumination					11%	\$	70,556			
	Special Drainage Structures	None Anticipated			\$	-	\$	-			
	Water	Minor Adjustments				6%	\$	37,594			
	Sewer	Minor Adjustments				4%	\$	25,063			
	Establish Turf / Erosion Control					3%	\$	18,797			
	Basic Landscaping					3%	\$	18,797			
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-			
	Other:					\$0	\$	-			
	Allowance Subtotal:						\$	409,818			
			Paving an				\$	1,036,381			
		Constru	uction Conti			15%	\$	155,457			
			Constru	ction C	Construction Cost TOTAL:						

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,192,000				
Engineering/Survey/Testing:		20%	\$	238,400				
Mobilization		5%	\$	59,600				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	119,200				
	\$	1,609,000						

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Informat	i <b>on:</b> D	escription:	Project No.	B-6
Name:	Avondale Haslet Rd. (3)	This	project consists of the	е
Limits:	235' W. of Moonlake Way to Moonlake \	Vay <mark>reco</mark>	enstruction of an existing	ng two-lane

Impact Fee Class: M4U
Ultimate Class: Minor Arterial

Length (If): 235 Service Area(s): B reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	nit Price	Item Cost
106	Unclassified Street Excavation	757	су	\$	10.50	\$ 7,951
206	6" Lime Stabilization (with Lime @ 32#/sy)	1,488	sy	\$	3.00	\$ 4,465
306	9" Concrete Pavement	1,436	sy	\$	36.00	\$ 51,700
406	6" Curb & Gutter	470	lf	\$	6.50	\$ 3,055
506	4" Topsoil	392	sy	\$	5.00	\$ 1,958
606	4' Concrete Sidewalk	1,880	sf	\$	5.00	\$ 9,400
701	Turn Lanes and Median Openings	0				
	Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 78,529

Majo							
	Item Description	Notes	Allowance		Item Cost		
V	Prep ROW		3%	\$	2,356		
	Traffic Control	Construction Phase Traffic Control	3%	\$	2,356		
	Pavement Markings/Markers	Pavement Markings and Bike Route	3%	\$	2,356		
	Roadway Drainage	Standard Internal System	30%	\$	23,559		
	Illumination		11%	\$	8,843		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	4,712		
	Sewer	Minor Adjustments	4%	\$	3,141		
	Establish Turf / Erosion Control		3%	\$	2,356		
	Basic Landscaping		3%	\$	2,356		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
	Other:		\$0	\$	-		
		Allowa	ince Subtotal:	\$	52,034		
	Paving and Allowance Subtotal:						
		Construction Contingency:	15%	\$	19,584		
		Construction C	ost TOTAL:	\$	151,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	151,000			
Engineering/Survey/Testing:		20%	\$	30,200			
Mobilization		5%	\$	7,550			
Previous City contribution			\$	-			
Other	CFA# 2003008 & 2003163		\$	(38,475)			
ROW/Easement Acquisition:	Existing Alignment	10%	\$	15,100			
	\$	165,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information: Description: Project No. B-7
Name: Avondale Haslet Rd. (4) This project consists of the

Limits: Moonlake Way to Sendera Ranch Blvd. reconstruction of an existing two-lane

Impact Fee Class: M4U undivided asphalt facility into a four-Ultimate Class: Minor Arterial lane undivided minor arterial.

Length (If): 2,105 Service Area(s): B

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	6,783	су	\$	10.50	\$ 71,219
206	6" Lime Stabilization (with Lime @ 32#/sy)	13,332	sy	\$	3.00	\$ 39,995
306	9" Concrete Pavement	12,864	sy	\$	36.00	\$ 463,100
406	6" Curb & Gutter	4,210	lf	\$	6.50	\$ 27,365
506	4" Topsoil	3,508	sy	\$	5.00	\$ 17,542
606	4' Concrete Sidewalk	16,840	sf	\$	5.00	\$ 84,200
701	Turn Lanes and Median Openings	0				
	Pa	aving Constr	ruction (	Cost	Subtotal:	\$ 703,421
Maja	or Construction Component Allowances:					

Maj	or Construction Component Allowa						
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	21,103		
$\checkmark$	Traffic Control	Construction Phase Traffic Control	3%	\$	21,103		
	Pavement Markings/Markers		2%	\$	15,100		
	Roadway Drainage	Standard Internal System	30%	\$	211,026		
	Illumination		11%	\$	79,210		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	42,205		
	Sewer	Minor Adjustments	4%	\$	28,137		
	Establish Turf / Erosion Control		3%	\$	21,103		
	Basic Landscaping		3%	\$	21,103		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
	Other:		\$0	\$	-		
		Allowa	ınce Subtotal:	\$	460,089		
	Paving and Allowance Subtotal:						
		Construction Contingency:	15%	\$	174,527		
		Construction C	ost TOTAL:	\$	1,339,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,339,000			
Engineering/Survey/Testing:		20%	\$	267,800			
Mobilization		5%	\$	66,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	133,900			
	\$	1,808,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Avondale Haslet Rd. (5)

Limits:

Sendera Ranch Blvd. to Future Sendera Ranch Blvd.

Impact Fee Class:

M4U

Description:

Project No.

B-8

This project consists of the construction of a new four-lane undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 580 Service Area(s): B

No.	Item Description	•	Quantity	Unit	Uı	nit Price		Item Cost
106	Unclassified Street Excavation		1,869	су	\$	10.50	\$	19,623
206	6" Lime Stabilization (with Lime @ 3	32#/sy)	3,673	sy	\$	3.00	\$	11,020
306	9" Concrete Pavement		3,544	sy	\$	36.00	\$	127,600
406	6" Curb & Gutter		1,160	lf	\$	6.50	\$	7,540
506	4" Topsoil		967	sy	\$	5.00	\$	4,833
606	4' Concrete Sidewalk		4,640	sf	\$	5.00	\$	23,200
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	193,817
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Al	lowance		Item Cost
	Prep ROW					3%	\$	5,815
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers					2%	\$	4,161
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	58,145
	Illumination					11%	\$	21,825
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	11,629
	Sewer	Minor Adjustments				4%	\$	7,753
	Establish Turf / Erosion Control					3%		5,815
$\checkmark$	Basic Landscaping					3%		5,815
	Intersections (Signal, Roundabout, etc.)	None Anticipated			\$0		-	
	Other: \$0				_	-		
	Allowance Subtotal:						\$	370,956

Impact Fee Project Cost Sum	nmary		
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
	\$ 943,000		

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

**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.

\$

564,773

84,716

650,000

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. B-9
Name: Avondale Haslet Rd. (6) This project consists of the

Name: Avondale Haslet Rd. (6) This project consists of the Limits: Future Sendera Ranch Blvd. to E. City Limits construction of a new four-lane

Impact Fee Class: M4U undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 2,740
Service Area(s): B

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	8,829	су	\$	10.50	\$ 92,703
206	6" Lime Stabilization (with Lime @ 32#/sy)	17,353	sy	\$	3.00	\$ 52,060
306	9" Concrete Pavement	16,744	sy	\$	36.00	\$ 602,800
406	6" Curb & Gutter	5,480	lf	\$	6.50	\$ 35,620
506	4" Topsoil	4,567	sy	\$	5.00	\$ 22,833
606	4' Concrete Sidewalk	21,920	sf	\$	5.00	\$ 109,600
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 915,617

Major Construction Component Allow Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 27,469
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers		2%	\$ 19,655
√ Roadway Drainage	Standard Internal System	30%	\$ 274,685
√ Illumination		11%	\$ 103,105
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 54,937
√ Sewer	Minor Adjustments	4%	\$ 36,625
√ Establish Turf / Erosion Control		3%	\$ 27,469
√ Basic Landscaping		3%	\$ 27,469
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:		\$0	\$ -
	\$ 721,413		
	\$ 1,637,029		
	Construction Contingen	cy: 15%	\$ 245,554
	Construction	Cost TOTAL:	\$ 1,883,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,883,000
Engineering/Survey/Testing:		20%	\$ 376,600
Mobilization		5%	\$ 94,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 376,600
	\$ 2,730,000		

**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.

No. Item Description

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Item Cost** 

<b>Project Informat</b>	tion:	Description:	Project No.	B-10
Name:	Blue Mound Rd.		This project cons	ists of the
Limits:	Willow Springs Rd. to Future Wagley	Robertson Rd.	reconstruction of	an existing
Impact Fee Class:	M4U-B		two-lane undivide	ed asphalt
Ultimate Class:	Minor Arterial		facility into a four	r-lane
Length (If):	5,295		undivided minor	
Service Area(s):	В			

Quantity

Unit

Unit Price

107	Unclassified Street Excavation		17,650	су	\$	10.50	\$	185,325
207	6" Lime Stabilization (with Lime @ 3	2 32#/sy) 34,712 sy			\$	3.00	\$	104,135
307	9" Concrete Pavement		33,535	sy	\$	36.00	\$	1,207,260
407	6" Curb & Gutter		10,590	lf	\$	6.50	\$	68,835
507	4" Topsoil		7,648	sy	\$	5.00	\$	38,242
607	4' Concrete Sidewalk		42,360	sf	\$	5.00	\$	211,800
701	Turn Lanes and Median Openings		0					
		Pa	ving Const	ruction (	Cost	Subtotal:	\$	1,815,597
							_	
Majo	or Construction Component Allow	-						
L.,	Item Description	Notes			All	owance		Item Cost
√,	Prep ROW					3%		54,468
√,	Traffic Control	Construction Phase	Traffic Control			3%		54,468
√,	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%		72,624
√,	Roadway Drainage	Standard Internal Sys	stem			30%		544,679
√	Illumination					11%	\$	204,449
ļ ,	Special Drainage Structures	None Anticipated			\$	-	\$	-
√,	Water	Minor Adjustments				6%		108,936
√,	Sewer	Minor Adjustments				4%		72,624
√.	Establish Turf / Erosion Control					3%		54,468
√,	Basic Landscaping					3%		54,468
√	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile				\$150,000	\$	300,000
	Other:				\$0	\$	-	
Allowance Subtotal:							\$	1,521,184
Paving and Allowance Subtotal:								3,336,780
Construction Contingency: 15%								500,517
Construction Cost TOTAL:							\$	3,838,000

Impact Fee Project Cost Sum	mary					
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	3,838,000		
Engineering/Survey/Testing:		20%	\$	767,600		
Mobilization		5%	\$	191,900		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	383,800		
	Impact Fee Project Cost TOTAL:					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. B-11
Name: Sendera Ranch Blvd. (1) This project consists of the

Limits: Future Eagle Pkwy. to Rancho Canyon Way construction of a new six-lane divided

Quantity

Unit

Impact Fee Class: P6D principal arterial.

Ultimate Class: Principal Arterial

Length (If): 4,835 Service Area(s): B

No. Item Description

112	Unclassified Street Excavation		29,547	су	\$	10.50	\$	310,246
212	6" Lime Stabilization (with Lime @ 3	32#/sy)	45,127	sy	\$	3.00	\$	135,380
312	11" Concrete Pavement		42,978	sy	\$	44.00	\$	1,891,022
412	6" Curb & Gutter		19,340	lf	\$	6.50	\$	125,710
512	4" Topsoil		22,026	sy	\$	5.00	\$	110,131
612	4' Concrete Sidewalk		38,680	sf	\$	5.00	\$	193,400
701	Turn Lanes and Median Openings		3,495	sy	\$	44.00	\$	153,793
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	2,919,682
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Alle	owance		Item Cost
1	Prep ROW					3%	\$	87,590
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers					2%	\$	62,676
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	875,905
	Illumination					11%	\$	328,778
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	175,181
	Sewer	Minor Adjustments				4%	\$	116,787
	Establish Turf / Erosion Control					3%	\$	87,590
	Basic Landscaping					3%	\$	87,590
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile			:	\$150,000	\$	150,000
	Other:					\$0	\$	-
Allowance Subtotal:						\$	1,972,098	
	Paving and Allowance Subtotal:							4,891,780

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,626,000
Engineering/Survey/Testing:		20%	\$ 1,125,200
Mobilization		5%	\$ 281,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,125,200
	\$ 8,158,000		

**Construction Contingency:** 

**Construction Cost TOTAL:** 

**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.

\$

15%

733,767

5,626,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. B-12

Name: Sendera Ranch Blvd. (2) This project consists of the

Name: Sendera Ranch Blvd. (2) This project consists of the Limits: Rancho Canyon Way to Suncatcher Way construction of a new six-lane divided

Impact Fee Class: P6D principal arterial.

Ultimate Class: Principal Arterial

Length (If): 2,810
Service Area(s): B, ETJ

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
112	Unclassified Street Excavation	17,172	су	\$	10.50	\$	180,308
212	6" Lime Stabilization (with Lime @ 32#/sy)	26,227	sy	\$	3.00	\$	78,680
312	11" Concrete Pavement	24,978	sy	\$	44.00	\$	1,099,022
412	6" Curb & Gutter	11,240	lf	\$	6.50	\$	73,060
512	4" Topsoil	12,801	sy	\$	5.00	\$	64,006
612	4' Concrete Sidewalk	22,480	sf	\$	5.00	\$	112,400
701	Turn Lanes and Median Openings	2,031	sy	\$	44.00	\$	89,381
	Paving Construction Cost Subtotal: \$						1,696,858

		i aving conciliation	oot oubtotui.	Ψ	1,000,000		
Majo	or Construction Component Allow	ances:					
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	50,906		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers		2%	\$	36,426		
	Roadway Drainage	Standard Internal System	30%	\$	509,057		
	Illumination		11%	\$	191,079		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	101,811		
	Sewer	Minor Adjustments	4%	\$	67,874		
	Establish Turf / Erosion Control		3%	\$	50,906		
	Basic Landscaping		3%	\$	50,906		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:		\$0	\$	-		
		Allowa	ance Subtotal:	\$	1,208,965		
		Paving and Allowa	ance Subtotal:	\$	2,905,822		
		Construction Contingency:	15%	\$	435,873		
		Construction C	ost TOTAL:	\$	3,342,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,342,000			
Engineering/Survey/Testing:		20%	\$	668,400			
Mobilization		5%	\$	167,100			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	668,400			
	\$	4,846,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

 Project Information:
 Description:
 Project No.
 B-13

 Name:
 Sendera Ranch Blvd. (3)
 This project consists of the construction of two additional through lanes within the existing median.

Quantity Unit Unit Price

Impact Fee Class: P6D (1/3)
Ultimate Class: Principal Arterial

Length (If): 3,650 Service Area(s): B

No. Item Description

				0				
114	Unclassified Street Excavation		11,356	су	\$	10.50	\$	119,233
214	6" Lime Stabilization (with Lime @ 3	32#/sy)	10,950	sy	\$	3.00	\$	32,850
314	11" Concrete Pavement		10,139	sy	\$	44.00	\$	446,111
414	6" Curb & Gutter		7,300	lf	\$	6.50	\$	47,450
514	4" Topsoil		11,356	sy	\$	5.00	\$	56,778
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		2,639	sy	\$	44.00	\$	116,100
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	818,523
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
1	Prep ROW					3%	\$	24,556
	Traffic Control	Construction Phase	Traffic Control			3%	\$	24,556
	Pavement Markings/Markers					3%	\$	24,556
	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					3%		24,556
	Basic Landscaping					3%		24,556
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0	_	-
Allowance Subtotal:							\$	122,778
							ļ.,	
Paving and Allowance Subtotal:							\$	941,301

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,083,000			
Engineering/Survey/Testing:		20%	\$	216,600			
Mobilization		5%	\$	54,150			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-			
	\$	1,354,000					

Construction Contingency:

**Construction Cost TOTAL:** 

**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.

\$

141,195

1,083,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Sendera Ranch Blvd. (4)

Limits:

Impact Fee Class:

Project No.

Description:

Project No.

B-14

This project consists of the widening of an existing two-lane undivided concrete facility to a six-lane divided principal arterial.

Ultimate Class: Principal Arterial

Length (If): 1,215 Service Area(s): B

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
117	Unclassified Street Excavation	5,603	су	\$	10.50	\$	58,826
217	6" Lime Stabilization (with Lime @ 32#/sy)	7,493	sy	\$	3.00	\$	22,478
317	11" Concrete Pavement	7,088	sy	\$	44.00	\$	311,850
417	6" Curb & Gutter	3,645	lf	\$	6.50	\$	23,693
517	4" Topsoil	4,793	sy	\$	5.00	\$	23,963
617	4' Concrete Sidewalk	4,860	sf	\$	5.00	\$	24,300
701	Turn Lanes and Median Openings	878	sy	\$	44.00	\$	38,647
							500 750

Paving Construction Cost Subtotal: \$ 503,756

Majo	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	15,113				
	Traffic Control	Construction Phase Traffic Control	3%	\$	15,113				
	Pavement Markings/Markers		2%	\$	10,814				
	Roadway Drainage	Standard Internal System	30%	\$	151,127				
	Illumination		11%	\$	56,727				
	Special Drainage Structures	Two Minor Stream Crossings	\$ 500,000	\$	500,000				
	Water	Minor Adjustments	6%	\$	30,225				
	Sewer	Minor Adjustments	4%	\$	20,150				
	Establish Turf / Erosion Control		3%	\$	15,113				
	Basic Landscaping		3%	\$	15,113				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:		\$0	\$	-				
		Allowa	ince Subtotal:	\$	829,494				
	Paving and Allowance Subtotal:								
	Construction Contingency: 15%								
		Construction C	ost TOTAL:	\$	1,534,000				

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,534,000			
Engineering/Survey/Testing:		20%	\$	306,800			
Mobilization		5%	\$	76,700			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	153,400			
	\$	2,071,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. B-15

Name: Sendera Ranch Blvd. (5) This project consists of the

Name: Sendera Ranch Blvd. (5) This project consists of the Limits: Mustang Ridge Dr. to Diamondback Ln. construction of two addition

Limits: Mustang Ridge Dr. to Diamondback Ln. construction of two additional through lanes within the existing median.

Ultimate Class: Principal Arterial

Length (If): 1,295 Service Area(s): B

Roa	Roadway Construction Cost Projection								
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost		
114	Unclassified Street Excavation	4,029	су	\$	10.50	\$	42,303		
214	6" Lime Stabilization (with Lime @ 32#/sy)	3,885	sy	\$	3.00	\$	11,655		
314	11" Concrete Pavement	3,597	sy	\$	44.00	\$	158,278		
414	6" Curb & Gutter	2,590	lf	\$	6.50	\$	16,835		
514	4" Topsoil	4,029	sy	\$	5.00	\$	20,144		
614	4' Concrete Sidewalk	0	sf	\$	5.00	\$	-		
701	Turn Lanes and Median Openings	936	sy	\$	44.00	\$	41,192		

Paving Construction Cost Subtotal: \$ 290,407

Majo	Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost			
V	Prep ROW		3%	\$	8,712			
	Traffic Control	Construction Phase Traffic Control	3%	\$	8,712			
	Pavement Markings/Markers		3%	\$	8,712			
	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		3%	\$	8,712			
	Basic Landscaping		3%	\$	8,712			
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-			
	Other:		\$0	\$	-			
		Allowa	nce Subtotal:	\$	43,561			
	Paving and Allowance Subtotal:							
		Construction Contingency:	15%	\$	50,095			
	Construction Cost TOTAL:							

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	385,000				
Engineering/Survey/Testing:		20%	\$	77,000				
Mobilization		5%	\$	19,250				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-				
	\$	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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: Project No. **B-16** Name: Sendera Ranch Blvd. (6) This project consists of the Limits: Diamondback Ln. to Future Sendera Ranch Blvd. widening of an existing two-Impact Fee Class: P6D (2/3) lane undivided concrete facility **Ultimate Class:** Principal Arterial to a six-lane divided principal Length (If): 3,810 arterial. Service Area(s): В

Roa	adway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
117	Unclassified Street Excavation		17,568	су	\$	10.50	\$	184,468
217	6" Lime Stabilization (with Lime @ 3	32#/sy)	23,495	sy	\$	3.00	\$	70,485
317	11" Concrete Pavement		22,225	sy	\$	44.00	\$	977,900
417	6" Curb & Gutter		11,430	lf	\$	6.50	\$	74,295
517	4" Topsoil		15,028	sy	\$	5.00	\$	75,142
617	4' Concrete Sidewalk		15,240	sf	\$	5.00	\$	76,200
701	Turn Lanes and Median Openings		2,754	sy	\$	44.00	\$	121,190
	Paving Construction C					Subtotal:	\$	1,579,679
	·							
Majo	Major Construction Component Allowances:							
	Item Description	Notes			All	owance		Item Cost
1	Prep ROW					3%		47,390
	Traffic Control	Construction Phase	Traffic Control			3%	\$	47,390
	Pavement Markings/Markers					2%	\$	33,911
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	473,904
	Illumination					11%	\$	177,883
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	94,781
	Sewer	Minor Adjustments				4%	\$	63,187
	Establish Turf / Erosion Control	,				3%	\$	47,390
	Basic Landscaping					3%	\$	47,390
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile				\$150,000	\$	150,000
	Other:					\$0	\$	
							\$	1,433,227

<b>3,465,000</b> 693,000
693,000
300,000
173,250
-
346,500
_

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

**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.

\$

3,012,906

3,465,000

451,936

**Project Information:** 

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Description: Project No. B-17

Name: Sendera Ranch Blvd. (7) This project consists of the Limits: Existing Sendera Ranch Blvd. to Future Avondale Haslet construction of a new six-la

Limits: Existing Sendera Ranch Blvd. to Future Avondale Haslet construction of a new six-lane divided principal arterial.

Ultimate Class: Principal Arterial

Length (If): 1,130
Service Area(s): B

Roa	dway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost	
112	Unclassified Street Excavation	6,906	су	\$	10.50	\$	72,508	
212	6" Lime Stabilization (with Lime @ 32#/sy)	10,547	sy	\$	3.00	\$	31,640	
312	11" Concrete Pavement	10,044	sy	\$	44.00	\$	441,956	
412	6" Curb & Gutter	4,520	lf	\$	6.50	\$	29,380	
512	4" Topsoil	5,148	sy	\$	5.00	\$	25,739	
612	4' Concrete Sidewalk	9,040	sf	\$	5.00	\$	45,200	
701	Turn Lanes and Median Openings	817	sy	\$	44.00	\$	35,943	
	Paving Construction Cost Subtotal: \$							

Major Construction Component Allowances:									
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	20,471				
	Traffic Control	None Anticipated	0%	\$	-				
	Pavement Markings/Markers		2%	\$	14,648				
	Roadway Drainage	Standard Internal System	30%	\$	204,710				
	Illumination		11%	\$	76,839				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
	Water	Minor Adjustments	6%	\$	40,942				
	Sewer	Minor Adjustments	4%	\$	27,295				
	Establish Turf / Erosion Control		3%	\$	20,471				
	Basic Landscaping		3%	\$	20,471				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:		\$0	\$	-				
		Allowa	nce Subtotal:	\$	425,847				
	Paving and Allowance Subtotal:								
		Construction Contingency:	15%	\$	166,232				
		Construction C	ost TOTAL:	\$	1,275,000				

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	1,275,000					
Engineering/Survey/Testing:		20%	\$	255,000					
Mobilization		5%	\$	63,750					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	255,000					
	Impact Fee Pro	ject Cost TOTAL:	\$	1,849,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **B-18** Name: Sendera Ranch Blvd. (8) This project consists of the

Limits: Future Avondale Haslet to Blue Mound Rd. construction of a new six-lane divided

Impact Fee Class: P6D principal arterial.

**Ultimate Class:** Principal Arterial

Length (If): 10,175 Service Area(s): В

No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
112	Unclassified Street Excavation	62,181	су	\$	10.50	\$	652,896
212	6" Lime Stabilization (with Lime @ 32#/sy)	94,967	sy	\$	3.00	\$	284,900
312	11" Concrete Pavement	90,444	sy	\$	44.00	\$	3,979,556
412	6" Curb & Gutter	40,700	lf	\$	6.50	\$	264,550
512	4" Topsoil	46,353	sy	\$	5.00	\$	231,764
612	4' Concrete Sidewalk	81,400	sf	\$	5.00	\$	407,000
701	Turn Lanes and Median Openings	7,356	sy	\$	44.00	\$	323,650
Paving Construction Cost Subtotal:							6,144,315

Maj	or Construction Component Allow	ances:		
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 184,329
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers		2%	\$ 131,899
	Roadway Drainage	Standard Internal System	30%	\$ 1,843,295
	Illumination		11%	\$ 691,895
	Special Drainage Structures	Minor Stream Crossings (2)	\$ 500,000	\$ 500,000
	Water	Minor Adjustments	6%	\$ 368,659
	Sewer	Minor Adjustments	4%	\$ 245,773
	Establish Turf / Erosion Control		3%	\$ 184,329
	Basic Landscaping		3%	\$ 184,329
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 450,000
	Other:		\$0	\$ -
		Allowa	ance Subtotal:	\$ 4,784,508
		Paving and Allowa	ance Subtotal:	\$ 10,928,823
		Construction Contingency:	15%	\$ 1,639,324
		Construction C	ost TOTAL:	\$ 12,569,000

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	12,569,000					
Engineering/Survey/Testing:		20%	\$	2,513,800					
Mobilization		5%	\$	628,450					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	2,513,800					
	Impact Fee Proj	ject Cost TOTAL:	\$	18,225,000					

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:Description:Project No.B-19Name:John Day Rd. (1)This project consists of the construction of a new

Limits: N. City Limits to Rancho Canyon Way four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 9,420
Service Area(s): B

Roa	dway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost	
109	Unclassified Street Excavation	42,913	су	\$	10.50	\$	450,590	
209	6" Lime Stabilization (with Lime @ 32#/sy)	64,893	sy	\$	3.00	\$	194,680	
309	11" Concrete Pavement	60,707	sy	\$	44.00	\$	2,671,093	
409	6" Curb & Gutter	37,680	lf	\$	6.50	\$	244,920	
509	4" Topsoil	45,007	sy	\$	5.00	\$	225,033	
609	4' Concrete Sidewalk	75,360	sf	\$	5.00	\$	376,800	
701	Turn Lanes and Median Openings	6,810	sy	\$	44.00	\$	299,635	
	Paving Construction Cost Subtotal: \$							
Majo	or Construction Component Allowances:			_				

Maio	or Construction Component Allow	ances:			
maj	Item Description	Notes	Allowance	П	Item Cost
V	Prep ROW		3%	\$	133,883
	Traffic Control	None Anticipated	0%	\$	-
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	178,510
	Roadway Drainage	Standard Internal System	30%	\$	1,338,825
	Illumination		11%	\$	502,538
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000
	Water	Minor Adjustments	6%	\$	267,765
	Sewer	Minor Adjustments	4%	\$	178,510
	Establish Turf / Erosion Control		3%	\$	133,883
	Basic Landscaping		3%	\$	133,883
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	450,000
	Other:		\$0	\$	-
		Allowa	ınce Subtotal:	\$	3,567,797
		Paving and Allowa	nce Subtotal:	\$	8,030,548
		Construction Contingency:	15%	\$	1,204,582
		Construction C	ost TOTAL:	\$	9,236,000

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	9,236,000					
Engineering/Survey/Testing:		20%	\$	1,847,200					
Mobilization		5%	\$	461,800					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,847,200					
	Impact Fee Proje	ect Cost TOTAL:	\$	13,392,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

10.50

updated: 10/2/2012

**Item Cost** 

37,100

Project Information: Description: Project No. B-20

Name: John Day Rd. (2) This project consists of the construction of a new

Quantity

3,533

Unit

су

Limits: Rancho Canyon Way to S. City Limits four-lane divided major arterial.

Impact Fee Class: MA4D
Ultimate Class: Major Arterial

108 Unclassified Street Excavation

Length (If): 795 Service Area(s): B

No. Item Description

208	6" Lime Stabilization (with Lime @ 3	32#/sy)	5,300	sy	\$	3.00	\$	15,900
308	11" Concrete Pavement		4,947	sy	\$	44.00	\$	217,653
408	6" Curb & Gutter		3,180	lf	\$	6.50	\$	20,670
508	4" Topsoil		3,975	sy	\$	5.00	\$	19,875
608	4' Concrete Sidewalk		6,360	sf	\$	5.00	\$	31,800
701	Turn Lanes and Median Openings		575	sy	\$	44.00	\$	25,288
	· · · · · · · · · · · · · · · · · · ·	Pa	ving Const	ruction (	Cost	Subtotal:	\$	368,286
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	11,049
	Traffic Control	None Anticipated				0%		-
	Pavement Markings/Markers					2%	\$	7,906
	Roadway Drainage	Standard Internal Sys	stem			30%		110,486
	Illumination					11%	\$	41,472
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		22,097
	Sewer	Minor Adjustments				4%		14,731
	Establish Turf / Erosion Control					3%		11,049
	Basic Landscaping					3%		11,049
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	_	-
				Allowa	nce S	Subtotal:	\$	229,838
			Paving an					598,124
		Constru	ıction Conti	-		15%	-	89,719
			Constru	ction C	ost <sup>-</sup>	TOTAL:	\$	688,000

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	688,000					
Engineering/Survey/Testing:		20%	\$	137,600					
Mobilization		5%	\$	34,400					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	137,600					
	Impact Fee Project Cost TOTAL:								

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: Project No. **B-21** Name: Willow Springs Rd. (1) This project consists of the Limits: Avondale Haslet Rd. to 205' S. of Velda Kay Ln. reconstruction of an existing two-lane Impact Fee Class: M4U-B undivided asphalt facility into a four-**Ultimate Class:** Minor Arterial lane undivided minor arterial. Length (If): 1,600 Service Area(s): B, ETJ

Roa								
No.	Item Description		Quantity	Unit	Ur	nit Price		Item Cost
107	Unclassified Street Excavation			су	\$	10.50	\$	56,000
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	10,489	sy	\$	3.00	\$	31,467
307	9" Concrete Pavement		10,133	sy	\$	36.00	\$	364,800
407	6" Curb & Gutter		3,200	lf	\$	6.50	\$	20,800
507	4" Topsoil		2,311	sy	\$	5.00	\$	11,556
607	4' Concrete Sidewalk		12,800	sf	\$	5.00	\$	64,000
701	Turn Lanes and Median Openings		0					
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	548,622
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			All	owance		Item Cost
1	Prep ROW					3%	\$	16,459
√.	Traffic Control	Construction Phase	Traffic Control			3%		16,459
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	21,945
√.	Roadway Drainage	Standard Internal Sy	stem			30%		164,587
	Illumination					11%	\$	61,779
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	32,917
	Sewer	Minor Adjustments				4%		21,945
	Establish Turf / Erosion Control					3%		16,459
	Basic Landscaping					3%		16,459
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	_	-
Allowance Subtotal:							\$	369,007

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,056,000
Engineering/Survey/Testing:		20%	\$ 211,200
Mobilization		5%	\$ 52,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 105,600
	\$ 1.426.000		

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

**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.

\$

917,630

137,644

1,056,000

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **B-22** Name: Willow Springs Rd. (2) This project consists of the Limits: 205' S. of Velda Kay Ln. to Blue Mound Rd. reconstruction of an existing two-lane Impact Fee Class: M4U-B undivided asphalt facility into a four-**Ultimate Class:** Minor Arterial lane undivided minor arterial. Length (If): 6,615 Service Area(s): В

No.	Item Description		Quantity	Unit	Ur	nit Price		Item Cost
107	Unclassified Street Excavation		22,050	су	\$	10.50	\$	231,525
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	43,365	sy	\$	3.00	\$	130,095
307	9" Concrete Pavement		41,895	sy	\$	36.00	\$	1,508,220
407	6" Curb & Gutter		13,230	lf	\$	6.50	\$	85,995
507	4" Topsoil		9,555	sy	\$	5.00	\$	47,775
607	4' Concrete Sidewalk		52,920	sf	\$	5.00	\$	264,600
701	Turn Lanes and Median Openings		0					
	Paving Construction Cost Subtotal:							2,268,210
Maio	or Construction Component Allows	ances:						
maje	Item Description	Notes			AII	owance		Item Cost
	Prep ROW					3%	\$	68,046
	Traffic Control	Construction Phase	Traffic Control			3%		68,046
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		90,728
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	680,463
	Illumination					11%	\$	255,417
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	136,093
	Sewer	Minor Adjustments				4%	\$	90,728
	Establish Turf / Erosion Control					3%	\$	68,046
	Basic Landscaping					3%	\$	68,046
	Intersections (Signal, Roundabout, etc.)	Assume Improvemer	nt per Half Mile			\$150,000	\$	300,000
	Other:					\$0	\$	-
	Allowance Subtotal:						\$	2,075,615
Paving and Allowance Subtotal:						\$	4,343,825	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	4,996,000				
Engineering/Survey/Testing:		20%	\$	999,200				
Mobilization		5%	\$	249,800				
Previous City contribution			\$	-				
Other	CFA# 2006070 & 2006102		\$	(282,830)				
ROW/Easement Acquisition:	Existing Alignment	10%	\$	499,600				
	\$	6,462,000						

**Construction Contingency:** 

**Construction Cost TOTAL:** 

**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.

\$

651,574

4,996,000

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. **B-23** Description: Name: Willow Springs Rd. (3) This project consists of the reconstruction of an Limits: Blue Mound Rd. to S. City Limits existing two-lane undivided asphalt facility into a Impact Fee Class: M4U-B four-lane undivided minor arterial.

Ultimate Class: Minor Arterial Length (If): 4,935 Service Area(s): В

Roa	adway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost	
107	Unclassified Street Excavation	16,450	су	\$	10.50	\$	172,725	
207	6" Lime Stabilization (with Lime @ 32#/sy)	32,352	sy	\$	3.00	\$	97,055	
307	9" Concrete Pavement	31,255	sy	\$	36.00	\$	1,125,180	
407	6" Curb & Gutter	9,870	lf	\$	6.50	\$	64,155	
507	4" Topsoil	7,128	sy	\$	5.00	\$	35,642	
607	4' Concrete Sidewalk	39,480	sf	\$	5.00	\$	197,400	
701	Turn Lanes and Median Openings	0						
	Paying Construction Cost Subtotal: \$							

Paving Construction Cost Subtotal: \$ 1.692.157

Majo	Major Construction Component Allowances:									
	Item Description	Notes	Allowance		Item Cost					
	Prep ROW		3%	\$	50,765					
	Traffic Control	Construction Phase Traffic Control	3%	\$	50,765					
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	67,686					
	Roadway Drainage	Standard Internal System	30%	\$	507,647					
	Illumination		11%	\$	190,549					
	Special Drainage Structures	None Anticipated	\$ -	\$	-					
	Water	Minor Adjustments	6%	\$	101,529					
	Sewer	Minor Adjustments	4%	\$	67,686					
	Establish Turf / Erosion Control		3%	\$	50,765					
	Basic Landscaping		3%	\$	50,765					
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000					
	Other:									
		Allowa	ance Subtotal:	\$	1,288,157					
		Paving and Allowa Construction Contingency:		\$	2,980,314					
	15%	\$	447,047							
		Construction C	ost TOTAL:	\$	3,428,000					

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	3,428,000				
Engineering/Survey/Testing:		20%	\$	685,600				
Mobilization		5%	\$	171,400				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	342,800				
	\$	4,628,000						

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

10.50 | \$

updated: 10/2/2012

**Item Cost** 

101,033

4,628,853

4,874,000

244,328

\$

\$

15%

Project Information: Description: Project No. B-24, C-14

Name: Wagley Robertson Rd. (1) This project consists of the

Limits: 250' N. of US 287 to 125' N of Hawks Landing Rd. construction of a new four-lane divided

Quantity

9,622

Unit

СУ

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial

108 Unclassified Street Excavation

Length (If): 2,165 Service Area(s): C, B

No. Item Description

			-,	-,	-		-	,
208	6" Lime Stabilization (with Lime @ 3	32#/sy)	14,433	sy	\$	3.00	\$	43,300
308	11" Concrete Pavement		13,471	sy	\$	44.00	\$	592,729
408	6" Curb & Gutter		8,660	lf	\$	6.50	\$	56,290
508	4" Topsoil		10,825	sy	\$	5.00	\$	54,125
608	4' Concrete Sidewalk		17,320	sf	\$	5.00	\$	86,600
701	Turn Lanes and Median Openings		1,565	sy	\$	44.00	\$	68,865
	Paving Construction C				Cost S	Subtotal:	\$	1,002,942
Majo	or Construction Component Allows	ances:						
	Item Description	Notes			Allo	owance		Item Cost
	Prep ROW					3%		30,088
	Traffic Control	None Anticipated				0%		-
$\sqrt{}$	Pavement Markings/Markers					2%		21,530
	Roadway Drainage	Standard Internal Sys	stem			30%		300,883
	Illumination					11%	\$	112,939
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		60,177
√,	Sewer	Minor Adjustments				4%		40,118
	Establish Turf / Erosion Control					3%		30,088
	Basic Landscaping					3%	\$	30,088
,	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
√	Other:	Bridge over US 287				3,000,000	_	3,000,000
Allowance Subtotal							\$	3,625,910

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	4,874,000				
Engineering/Survey/Testing:		20%	\$	974,800				
Mobilization		5%	\$	243,700				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	974,800				
	\$	7,067,000						

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### **Service Area C**

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
C-1	MA4D-B	Bonds Ranch Rd. (1)	Wagley Robertson Rd. to Foothill Dr.	\$ 1,158,000
C-2	MA4D-B	Bonds Ranch Rd. (2)	Foothill Dr. to FM 156	\$ 10,340,000
C-3	MA4D-B	Bonds Ranch Rd. (3)	FM 156 to Harmon Rd.	\$ 7,368,000
C-4	MA4D-B (1/2)	Golden Triangle Blvd. (1)	Misty Redwood Trl. to Golden Heights Rd.	\$ 1,635,000
C-5	MA4D-B	Golden Triangle Blvd. (2)	Golden Heights Rd. to Existing Golden Triangle Blvd.	\$ 1,565,000
C-6	MA4D-B	Heritage Trace Pkwy. (3)	Wagley Robertson Rd. to 220' SW of Drovers View Trl.	\$ 12,315,000
C-7	MA4D-B	Heritage Trace Pkwy. (4)	FM 156 to 130' S of Creosote Dr.	\$ 9,972,000
C-8	P6D (1/3)	Heritage Trace Pkwy. (5)	Harmon Rd. to IH-35W SBFR	\$ 1,561,000
C-9	P6D-B	N. Tarrant Pkwy. (1)	Existing Harmon Rd. to Existing N. Tarrant Pkwy.	\$ 9,779,000
C-10	MA4D	Bailey Boswell Rd. (3)	FM 156 to Horseman Rd.	\$ 5,670,000
C-11, F-1	MA4D-B (1/2)	Basswood Blvd. (1)	Blue Mound Rd. (FM 156) to 960' E. of FM 156	\$ 664,000
C-12, F-2	MA4D-B	Basswood Blvd. (2)	960' E. of FM 156 to Horseman Rd.	\$ 6,048,000
C-13, F-3	MA4D-B (1/2)	Basswood Blvd. (3)	Horseman Rd. to Candler Dr.	\$ 1,061,000
B-24, C-14	MA4D	Wagley Robertson Rd. (1)	250' N. of US 81 to 525' N of Hawks Landing Rd.	\$ 7,067,000
C-15	MA4D	Wagley Robertson Rd. (2)	525' N of Hawks Landing Rd.to 125' N of Hawks Landing	\$ 552,000
C-16	MA4D (1/2)	Wagley Robertson Rd. (3)	125' N of Hawks Landing Rd. to 80' S of Darby Ln.	\$ 1,531,000
C-17, E-13	MA4D-B	Wagley Robertson Rd. (4)	Hillwood Blvd. to 440' N of Coneflower Trl.	\$ 5,088,000
C-18	MA4D	Wagley Robertson Rd. (5)	225' S. of Prairie Clover Trl. to Tarrant Pkwy.	\$ 3,638,000
C-19, E-14	MA4D	Wagley Robertson Rd. (6)	150' N of Mystic River Trl. to 700' S of Mystic River Trl.	\$ 1,023,000
C-20	MA4D-B	Harmon Rd. (1)	Keller Hicks Rd. to Existing Harmon Rd.	\$ 2,986,000
C-21	MA4D-B	Harmon Rd. (2)	Future Harmon Alignment to 260' N. of Golden Triangle Blvd.	\$ 1,588,000
C-22	MA4D-B	Harmon Rd. (3)	260' N. of Golden Triangle Blvd. to Future Golden Triangle Alignment	\$ 825,000
C-23	MA4D-B (1/2)	Harmon Rd. (4)	Bonds Ranch Rd. to 475' S. of Heritage Trace Pkwy.	\$ 2,938,000
C-24	MA4D-B	Harmon Rd. (5)	475' S. of Heritage Trace Pkwy. to Presidio Vista Dr.	\$ 3,764,000
C-25	P6D-B	Harmon Rd. (6)	Presidio Vista Dr. to US 287 SBFR	\$ 5,040,000
C-26	P6D-B	Harmon Rd. (7)	US 287 SBFR to Future N. Tarrant Pkwy.	\$ 5,040,000
C-27	MA4D	Harmon Rd. (8)	Future N. Tarrant Pkwy. to Horseman Rd.	\$ 5,828,000
C-28	M4U (1/2)	Horseman Rd.	Bailey Boswell Rd. to 600' N. of Canchim St.	\$ 1,237,000

TOTAL \$ 117,281,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

Item Cost

 Project Information:
 Description:
 Project No.
 C-1

 Name:
 Bonds Ranch Rd. (1)
 This project consists of the reconstruction of a two 

Quantity

Unit

Limits: Wagley Robertson Rd. to Foothill Dr. lane undivided asphalt facility into a four-lane

Impact Fee Class: MA4D-B divided major arterial.

Ultimate Class: Major Arterial

Length (If): 625 Service Area(s): C, ETJ

No. Item Description

109	Unclassified Street Excavation		2,847	су	\$	10.50	\$	29,896
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	4,306	sy	\$	3.00	\$	12,917
309	11" Concrete Pavement		4,028	sy	\$	44.00	\$	177,222
409	6" Curb & Gutter		2,500	lf	\$	6.50	\$	16,250
509	4" Topsoil		2,986	sy	\$	5.00	\$	14,931
609	4' Concrete Sidewalk		5,000	sf	\$	5.00	\$	25,000
701	Turn Lanes and Median Openings		452	sy	\$	44.00	\$	19,880
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	296,095
Majo	or Construction Component Allowa	inces:						
	Item Description	Notes			Al	lowance		Item Cost
1	Prep ROW					3%	\$	8,883
	Traffic Control	Construction Phase	Traffic Control			3%	\$	8,883
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	11,844
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem			30%	\$	88,829
1	Illumination					11%	\$	33,343
$\sqrt{}$	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
√.	Water	Minor Adjustments				6%	\$	17,766
√.	Sewer	Minor Adjustments				4%	-	11,844
√.	Establish Turf / Erosion Control					3%		8,883
	Basic Landscaping					3%	\$	8,883
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
Allowance Subtotal:						\$	449,156	
	Paving and Allowance Subtotal:						745,251	
		Constru	uction Conti	-	_	15%	-	111,788
			Constru	ction C	ost	TOTAL:	\$	858,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 858,000
Engineering/Survey/Testing:		20%	\$ 171,600
Mobilization		5%	\$ 42,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 85,800
	\$ 1,158,000		

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Item Cost** 

**Project Information:** Project No. **C-2** Description: Name: Bonds Ranch Rd. (2) This project consists of the reconstruction of a two-Limits: Foothill Dr. to FM 156 lane undivided asphalt facility into a four-lane

Impact Fee Class: MA4D-B **Ultimate Class:** Major Arterial

Length (If): 7,355 Service Area(s): С

No. Item Description

divided major arterial.

Quantity Unit Unit Price

109 Unclassified Street Excavation	33,506	су	\$	10.50	\$	351,814
209 6" Lime Stabilization (with Lime @ 32#/sy)	50,668	sy	\$	3.00	\$	152,003
309 11" Concrete Pavement	47,399	sy	\$	44.00	\$	2,085,551
409 6" Curb & Gutter	29,420	lf	\$	6.50	\$	191,230
509 4" Topsoil	35,141	sy	\$	5.00	\$	175,703
609 4' Concrete Sidewalk	58,840	sf	\$	5.00	\$	294,200
701 Turn Lanes and Median Openings	5,317	sy	\$	44.00	\$	233,950
	<b>Paving Constr</b>	uction C	Cost	Subtotal:	\$	3,484,452
Major Construction Component Allowances:						
Item Description Notes			All	owance		Item Cost
√ Prep ROW				3%	\$	104,534
√ Traffic Control Construction Pha	se Traffic Control			3%	\$	104,534
√ Pavement Markings/Markers Pavement Markings/  Pavement Mark	gs with Bike Lanes			4%	\$	139,378
√ Roadway Drainage Standard Internal	System			30%	\$	1,045,336
√ Illumination				11%	\$	392,375
√ Special Drainage Structures  Two Minor Stream  Two Minor St	n Crossings		\$	500,000	\$	500,000
√ Water Minor Adjustment	S			6%	\$	209,067
√ Sewer Minor Adjustment	S			4%	-	139,378
√ Establish Turf / Erosion Control				3%	\$	104,534
√ Basic Landscaping				3%	\$	104,534
	nent per Half Mile			\$150,000		300,000
√ Other: Railroad Crossing	J			\$250,000		250,000
Allowance Subtotal:					\$	3,393,668
_	Paving and					6,878,119
Cons	truction Conti			15%	\$	994,218
	Construc	tion Co	ost	TOTAL:	\$	7,873,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,873,000
Engineering/Survey/Testing:		20%	\$ 1,574,600
Mobilization		5%	\$ 393,650
Previous City contribution			\$ -
Other	CFA# 2004164 & 2008019		\$ (289,004)
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 787,300
	\$ 10,340,000		

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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. **C-3** Description: Name: Bonds Ranch Rd. (3) This project consists of the reconstruction of a two-Limits: FM 156 to Harmon Rd. lane undivided asphalt facility into a four-lane

Impact Fee Class: MA4D-B **Ultimate Class:** Major Arterial

Length (If): 5,295 Service Area(s): С

divided major arterial.

No.	Item Description		Quantity	Unit	Uı	nit Price	Item Cost
109	Unclassified Street Excavation		24,122	су	\$	10.50	\$ 253,278
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	36,477	sy	\$	3.00	\$ 109,430
309	11" Concrete Pavement		34,123	sy	\$	44.00	\$ 1,501,427
409	6" Curb & Gutter		21,180	lf	\$	6.50	\$ 137,670
509	4" Topsoil		25,298	sy	\$	5.00	\$ 126,492
609	4' Concrete Sidewalk		42,360	sf	\$	5.00	\$ 211,800
701	Turn Lanes and Median Openings		3,828	sy	\$	44.00	\$ 168,425
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 2,508,521
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			Al	lowance	Item Cost
1	Prep ROW					3%	\$ 75,256
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 75,256
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 100,341
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 752,556
√.	Illumination					11%	\$ 282,478
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$ 250,000
	Water	Minor Adjustments				6%	\$ 150,511
$\sqrt{}$	Sewer	Minor Adjustments				4%	100,341
$\sqrt{}$	Establish Turf / Erosion Control					3%	\$ 75,256
$\sqrt{}$	Basic Landscaping					3%	\$ 75,256
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$ 300,000
	Other:					\$0	-
	Allowance Subtotal:						\$ 2,237,250
			Paving an				4,745,770
1	Construction Contingency: 15%					\$ 711,866	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,458,000
Engineering/Survey/Testing:		20%	\$ 1,091,600
Mobilization		5%	\$ 272,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 545,800
	\$ 7,368,000		

**Construction Cost TOTAL:** 

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.

5,458,000

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Colden Triangle Blvd. (1)
Limits:
Impact Fee Class:
Ultimate Class:

Description:
Project No.
C-4

This project consists of the widening of a two-lane undivided concrete facility into a four-lane divided major arterial.

Major Arterial

Length (If): 1,805 Service Area(s): C

No.	Item Description		Quantity	Unit	Ur	nit Price		Item Cost
111	Unclassified Street Excavation		4,212	су	\$	10.50	\$	44,223
211	6" Lime Stabilization (with Lime @ 32	2#/sy)	6,217	sy	\$	3.00	\$	18,652
311	11" Concrete Pavement		5,816	sy	\$	44.00	\$	255,909
411	6" Curb & Gutter		5,415	lf	\$	6.50	\$	35,198
511	4" Topsoil		6,518	sy	\$	5.00	\$	32,590
611	4' Concrete Sidewalk		7,220	sf	\$	5.00	\$	36,100
701	Turn Lanes and Median Openings		1,305	sy	\$	44.00	\$	57,414
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	480,085
Majo	or Construction Component Allowa							
	Item Description	Notes			All	owance		Item Cost
√,	Prep ROW					3%		14,403
√,	Traffic Control	Construction Phase	Traffic Control			3%	-	14,403
√,	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		19,203
√,	Roadway Drainage	Standard Internal Sys	stem			30%	-	144,025
1	Illumination					11%	\$	54,061
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%		28,805
	Sewer	Minor Adjustments				4%		19,203
√.	Establish Turf / Erosion Control					3%		14,403
	Basic Landscaping					3%		14,403
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	,	-
	Allowance Subtotal:					\$	572,909	
			Paving an					1,052,993
		Constru	uction Conti			15%		157,949
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:	Existing Alignment	10%	\$	121,100			
	\$	1,635,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **C-5** Name: Golden Triangle Blvd. (2) This project consists of the Limits: Golden Heights Rd. to Existing Golden Triangle Blvd.

Impact Fee Class: MA4D-B **Ultimate Class:** Major Arterial

Length (If): 1,205 Service Area(s): С

construction of a new four-lane divided major arterial.

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	nit Price	Item Cost
109	Unclassified Street Excavation	5,489	су	\$	10.50	\$ 57,639
209	6" Lime Stabilization (with Lime @ 32#/sy)	8,301	sy	\$	3.00	\$ 24,903
309	11" Concrete Pavement	7,766	sy	\$	44.00	\$ 341,684
409	6" Curb & Gutter	4,820	lf	\$	6.50	\$ 31,330
509	4" Topsoil	5,757	sy	\$	5.00	\$ 28,786
609	4' Concrete Sidewalk	9,640	sf	\$	5.00	\$ 48,200
701	Turn Lanes and Median Openings	871	sy	\$	44.00	\$ 38,329
	F	Paving Constr	ruction (	Cost	Subtotal:	\$ 570,872

Maior Cons	struction Component Allow	ances:	_		
	Description	Notes	Allowance		Item Cost
√ Prep R	ROW		3%	\$	17,126
Traffic	Control	None Anticipated	0%	\$	-
√ Pavem	nent Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	22,835
√ Roadw	vay Drainage	Standard Internal System	30%	\$	171,262
√ Illumin	ation		11%	\$	64,284
Specia	al Drainage Structures	None Anticipated	\$ -	\$	-
√ Water		Minor Adjustments	6%	\$	34,252
√ Sewer		Minor Adjustments	4%	\$	22,835
√ Establi	ish Turf / Erosion Control		3%	\$	17,126
√ Basic I	Landscaping		3%	\$	17,126
Intersec	tions (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
Other:			\$0	\$	-
		Allowa	ance Subtotal:	\$	366,847
	Paving and Allowance Subtotal:				
	Construction Contingency: 15%				
		Construction C	ost TOTAL:	\$	1,079,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,079,000			
Engineering/Survey/Testing:		20%	\$	215,800			
Mobilization		5%	\$	53,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	215,800			
	\$	1,565,000					

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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10/2/2012 updated:

**Item Cost** 

**Project Information:** Description: **C-6** Project No. Name: Heritage Trace Pkwy. (3) This project consists of the Limits: Wagley Robertson Rd. to 220' SW of Drovers View Trl. construction of a new four-lane Impact Fee Class: MA4D-B divided major arterial. **Ultimate Class:** Major Arterial

Quantity

Unit

Length (If): 7,540 Service Area(s): С

No. Item Description

	itom Boodinption		quantity	•	•	11.100	110111 0001
109	Unclassified Street Excavation		34,349	су	\$	10.50	\$ 360,663
209	6" Lime Stabilization (with Lime @ 32	2#/sy)	51,942	sy	\$	3.00	\$ 155,827
309	11" Concrete Pavement		48,591	sy	\$	44.00	\$ 2,138,009
409	6" Curb & Gutter		30,160	lf	\$	6.50	\$ 196,040
509	4" Topsoil		36,024	sy	\$	5.00	\$ 180,122
609	4' Concrete Sidewalk		60,320	sf	\$	5.00	\$ 301,600
701	Turn Lanes and Median Openings		5,451	sy	\$	44.00	\$ 239,835
		Pa	ving Const	ruction (	Cost	Subtotal:	\$ 3,572,096
Majo	or Construction Component Allowa	•					
	Item Description	Notes			All	owance	Item Cost
V	Prep ROW					3%	\$ 107,163
l .	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$ 142,884
√.	Roadway Drainage	Standard Internal Sys	stem			30%	 1,071,629
1	Illumination					11%	\$ 402,244
	Special Drainage Structures	Four Stream Crossin	gs		\$ 1	,000,000	\$ 1,000,000
	Water	Minor Adjustments				6%	214,326
√.	Sewer	Minor Adjustments				4%	 142,884
√,	Establish Turf / Erosion Control					3%	 107,163
√	Basic Landscaping					3%	107,163
,	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	300,000
√	Other:	Railroad Crossing				\$250,000	250,000
Allowance Subtotal:						Subtotal:	\$ 3,845,455
			Paving an				7,417,551
		Constru	ection Conti			15%	1,075,133
Construction Cost TOTAL:						\$ 8,493,000	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	8,493,000				
Engineering/Survey/Testing:		20%	\$	1,698,600				
Mobilization		5%	\$	424,650				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,698,600				
	\$	12,315,000						

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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. C-7

Name: Heritage Trace Pkwy. (4) This project consists of the

Limits: FM 156 to 130' S of Creosote Dr. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 4,935 Service Area(s): C

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	22,482	су	\$	10.50	\$ 236,058
209	6" Lime Stabilization (with Lime @ 32#/sy)	33,997	sy	\$	3.00	\$ 101,990
309	11" Concrete Pavement	31,803	sy	\$	44.00	\$ 1,399,347
409	6" Curb & Gutter	19,740	lf	\$	6.50	\$ 128,310
509	4" Topsoil	23,578	sy	\$	5.00	\$ 117,892
609	4' Concrete Sidewalk	39,480	sf	\$	5.00	\$ 197,400
701	Turn Lanes and Median Openings	3,568	sy	\$	44.00	\$ 156,974
Paving Construction Cost Subtotal:					\$ 2,337,970	

Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	70,139		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	93,519		
	Roadway Drainage	Standard Internal System	30%	\$	701,391		
	Illumination		11%	\$	263,273		
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000		
	Water	Minor Adjustments	6%	\$	140,278		
	Sewer	Minor Adjustments	4%	\$	93,519		
	Establish Turf / Erosion Control		3%	\$	70,139		
	Basic Landscaping		3%	\$	70,139		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:	Crossing Over US 287	\$2,000,000	\$	2,000,000		
		Allowa	nce Subtotal:	\$	3,902,397		
		Paving and Allowa	nce Subtotal:	\$	6,240,367		
		Construction Contingency:	15%	\$	636,055		
		Construction Const	ost TOTAL:	\$	6,877,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	6,877,000			
Engineering/Survey/Testing:		20%	\$	1,375,400			
Mobilization		5%	\$	343,850			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,375,400			
	\$	9,972,000					

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 C-8

 Name:
 Heritage Trace Pkwy. (5)
 This project consists of the construction of two additional through lanes within the existing median.

Impact Fee Class: P6D (1/3)
Ultimate Class: Principal Arterial

Length (If): 4,210 Service Area(s): C

No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
114	Unclassified Street Excavation		13,098	су	\$	10.50	\$ 137,527
214	6" Lime Stabilization (with Lime @:	32#/sy)	12,630	sy	\$	3.00	\$ 37,890
314	11" Concrete Pavement		11,694	sy	\$	44.00	\$ 514,556
414	6" Curb & Gutter		8,420	lf	\$	6.50	\$ 54,730
514	4" Topsoil		13,098	sy	\$	5.00	\$ 65,489
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$ -
701	Turn Lanes and Median Openings		3,043	sy	\$	44.00	\$ 133,913
	Paving Construction					Subtotal:	\$ 944,104
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			Alle	owance	Item Cost
1	Prep ROW					3%	\$ 28,323
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 28,323
	Pavement Markings/Markers					3%	\$ 28,323
	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					3%	\$ 28,323
	Basic Landscaping					3%	\$ 28,323
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	-

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,249,000				
Engineering/Survey/Testing:		20%	\$	249,800				
Mobilization		5%	\$	62,450				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-				
	\$	1,561,000						

**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.

141,616

1,085,720

1,249,000

162,858

\$

Allowance Subtotal:

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

6,744,000

Project Information: Description: Project No. C-9
Name: N. Tarrant Pkwy. (1) This project consists of the

Limits: Existing Harmon Rd. to Existing N. Tarrant Pkwy. construction of a new six-lane divided

Quantity

Unit

Construction Cost TOTAL: \$

**Unit Price** 

Impact Fee Class: P6D-B principal arterial.

Ultimate Class: Principal Arterial

Length (If): 2,170 Service Area(s): C

No. Item Description

113	Unclassified Street Excavation		13,261	су	\$	10.50	\$	139,242
213	6" Lime Stabilization (with Lime @ 3	2#/sy)	20,253	sy	\$	3.00	\$	60,760
313	11" Concrete Pavement		19,289	sy	\$	44.00	\$	848,711
413	6" Curb & Gutter		8,680	lf	\$	6.50	\$	56,420
513	4" Topsoil		9,886	sy	\$	5.00	\$	49,428
613	4' Concrete Sidewalk		17,360	sf	\$	5.00	\$	86,800
701	Turn Lanes and Median Openings		1,569	sy	\$	44.00	\$	69,024
	Paving Construction Cos				Cost S	Subtotal:	\$	1,310,385
Majo	or Construction Component Allowa	inces:			_			
	Item Description	Notes			Alle	owance		Item Cost
V	Prep ROW					3%	\$	39,312
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$	52,415
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	393,115
	Illumination					11%	\$	147,559
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	78,623
	Sewer	Minor Adjustments				4%	\$	52,415
	Establish Turf / Erosion Control					3%	\$	39,312
	Basic Landscaping					3%	\$	39,312
	Intersections (Signal, Roundabout, etc.)	None Anticipated			\$0	\$	-	
	Other:	Bridge over US 287 \$4,268,00				_	4,268,000	
Allowance Subtotal:						\$	5,110,063	
			Paving an					6,420,447
Construction Contingency: 15%						\$	322,867	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	6,744,000				
Engineering/Survey/Testing:		20%	\$	1,348,800				
Mobilization		5%	\$	337,200				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,348,800				
	\$	9,779,000						

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. C-10

Name: Bailey Boswell Rd. (3) This project consists of the construction of a new

Limits: FM 156 to Horseman Rd. four-lane divided major arterial.

Impact Fee Class: MA4D
Ultimate Class: Major Arterial
Length (If): 3,655

Service Area(s): C

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
108	Unclassified Street Excavation	16,244	су	\$	10.50	\$	170,567
208	6" Lime Stabilization (with Lime @ 32#/sy)	24,367	sy	\$	3.00	\$	73,100
308	11" Concrete Pavement	22,742	sy	\$	44.00	\$	1,000,658
408	6" Curb & Gutter	14,620	lf	\$	6.50	\$	95,030
508	4" Topsoil	18,275	sy	\$	5.00	\$	91,375
608	4' Concrete Sidewalk	29,240	sf	\$	5.00	\$	146,200
701	Turn Lanes and Median Openings	2,642	sy	\$	44.00	\$	116,259
	Paving Construction Cost Subtotal:						1,693,189

Maj	or Construction Component Allow	ances:		
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 50,796
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers		2%	\$ 36,347
	Roadway Drainage	Standard Internal System	30%	\$ 507,957
	Illumination		11%	\$ 190,665
	Special Drainage Structures	Two Stream Crossings	\$ 500,000	\$ 500,000
	Water	Minor Adjustments	6%	\$ 101,591
	Sewer	Minor Adjustments	4%	\$ 67,728
	Establish Turf / Erosion Control		3%	\$ 50,796
	Basic Landscaping		3%	\$ 50,796
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
	Other:		\$0	\$ -
		Allowa	ınce Subtotal:	\$ 1,706,675
		Paving and Allowa	nce Subtotal:	\$ 3,399,864
		Construction Contingency:	15%	\$ 509,980
		Construction C	ost TOTAL:	\$ 3,910,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	3,910,000				
Engineering/Survey/Testing:		20%	\$	782,000				
Mobilization		5%	\$	195,500				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	782,000				
	\$	5,670,000						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Item Cost

Project Information:

Name:

Basswood Blvd. (1)

Limits:

Blue Mound Rd. (FM 156) to 960' E. of FM 156

Impact Fee Class:

Ultimate Class:

Ultimate Class:

Description:

Project No. C-11, F-1

This project consists of the widening of a two-lane undivided concrete facility into a four-lane divided major arterial.

Quantity Unit Unit Price

Length (If): 960 Service Area(s): C, F

No. Item Description

110.	item bescription		Quantity		0::			item cost
111	Unclassified Street Excavation	•	2,240	су	\$	10.50	\$	23,520
211	6" Lime Stabilization (with Lime @ 3	2#/sy)	3,307	sy	\$	3.00	\$	9,920
311	11" Concrete Pavement		3,093	sy	\$	44.00	\$	136,107
411	6" Curb & Gutter		2,880	lf	\$	6.50	\$	18,720
511	4" Topsoil		3,467	sy	\$	5.00	\$	17,333
611	4' Concrete Sidewalk		3,840	sf	\$	5.00	\$	19,200
701	Turn Lanes and Median Openings		694	sy	\$	44.00	\$	30,536
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	255,336
Majo	or Construction Component Allowa	ances:	_	-		_		
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	7,660
	Traffic Control	Construction Phase	Traffic Control			3%	\$	7,660
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	10,213
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	76,601
	Illumination					11%	\$	28,753
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	15,320
	Sewer	Minor Adjustments				4%		10,213
$\sqrt{}$	Establish Turf / Erosion Control					3%		7,660
	Basic Landscaping					3%	\$	7,660
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	_	-
Allowance Subtotal:							\$	171,741
Paving and Allowance Subtotal:						Subtotal:	\$	427,077
Construction Contingency: 15%						15%		64,062
Construction Cost TOTAL:						\$	492,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 492,000
Engineering/Survey/Testing:		20%	\$ 98,400
Mobilization		5%	\$ 24,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 49,200
	\$ 664,000		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. C-12, F-2

Name: Basswood Blvd. (2) This project consists of the

Limits: 960' E. of FM 156 to Horseman Rd. construction of a four-lane divided

Impact Fee Class: MA4D-B major arterial.
Ultimate Class: Major Arterial

Length (If): 3,825 Service Area(s): C, F

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	17,425	су	\$	10.50	\$ 182,963
209	6" Lime Stabilization (with Lime @ 32#/sy)	26,350	sy	\$	3.00	\$ 79,050
309	11" Concrete Pavement	24,650	sy	\$	44.00	\$ 1,084,600
409	6" Curb & Gutter	15,300	lf	\$	6.50	\$ 99,450
509	4" Topsoil	18,275	sy	\$	5.00	\$ 91,375
609	4' Concrete Sidewalk	30,600	sf	\$	5.00	\$ 153,000
701	Turn Lanes and Median Openings	2,765	sy	\$	44.00	\$ 121,667
	P	aving Constr	uction (	Cost	Subtotal:	\$ 1,812,104

Maio	or Construction Component Allow	ances:			
	Item Description	Notes	Allowance		Item Cost
V	Prep ROW		3%	\$	54,363
	Traffic Control	None Anticipated	0%	\$	-
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	72,484
	Roadway Drainage	Standard Internal System	30%	\$	543,631
	Illumination		11%	\$	204,056
	Special Drainage Structures	Major Stream Crossing	\$ 500,000	\$	500,000
	Water	Minor Adjustments	6%	\$	108,726
	Sewer	Minor Adjustments	4%	\$	72,484
	Establish Turf / Erosion Control		3%	\$	54,363
	Basic Landscaping		3%	\$	54,363
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000
	Other:		\$0	\$	-
		Allowa	ance Subtotal:	\$	1,814,472
	Paving and Allowance Subtotal:				
	Construction Contingency: 15%				
		Construction C	ost TOTAL:	\$	4,171,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,171,000
Engineering/Survey/Testing:		20%	\$ 834,200
Mobilization		5%	\$ 208,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 834,200
	\$ 6,048,000		

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Description:

Project No.

C-13, F-3

Name:

Basswood Blvd. (3)

This project consists of the widening of a two-lane
Limits:

Horseman Rd. to Candler Dr.

Impact Fee Class:

MA4D-B (1/2)

MA4D-B (1/2)

Description:

Project No.

C-13, F-3

This project consists of the widening of a two-lane
undivided concrete facility into a four-lane divided
major arterial.

Ultimate Class: Major Arterial

Length (If): 1,535 Service Area(s): C, F

dway Construction Cost Projection						
Item Description	Quantity	Unit	Uni	it Price		Item Cost
Unclassified Street Excavation	3,582	су	\$	10.50	\$	37,608
6" Lime Stabilization (with Lime @ 32#/sy)	5,287	sy	\$	3.00	\$	15,862
11" Concrete Pavement	4,946	sy	\$	44.00	\$	217,629
6" Curb & Gutter	4,605	lf	\$	6.50	\$	29,933
4" Topsoil	5,543	sy	\$	5.00	\$	27,715
4' Concrete Sidewalk	6,140	sf	\$	5.00	\$	30,700
Turn Lanes and Median Openings	1,110	sy	\$	44.00	\$	48,826
	Item Description Unclassified Street Excavation 6" Lime Stabilization (with Lime @ 32#/sy) 11" Concrete Pavement 6" Curb & Gutter 4" Topsoil 4' Concrete Sidewalk Turn Lanes and Median Openings	Item DescriptionQuantityUnclassified Street Excavation3,5826" Lime Stabilization (with Lime @ 32#/sy)5,28711" Concrete Pavement4,9466" Curb & Gutter4,6054" Topsoil5,5434' Concrete Sidewalk6,140	Item Description         Quantity         Unit           Unclassified Street Excavation         3,582         cy           6" Lime Stabilization (with Lime @ 32#/sy)         5,287         sy           11" Concrete Pavement         4,946         sy           6" Curb & Gutter         4,605         If           4" Topsoil         5,543         sy           4' Concrete Sidewalk         6,140         sf           Turn Lanes and Median Openings         1,110         sy	Item Description         Quantity         Unit         Unit           Unclassified Street Excavation         3,582         cy         \$           6" Lime Stabilization (with Lime @ 32#/sy)         5,287         sy         \$           11" Concrete Pavement         4,946         sy         \$           6" Curb & Gutter         4,605         If         \$           4" Topsoil         5,543         sy         \$           4' Concrete Sidewalk         6,140         sf         \$           Turn Lanes and Median Openings         1,110         sy         \$	Item Description         Quantity         Unit         Unit Price           Unclassified Street Excavation         3,582         cy         \$ 10.50           6" Lime Stabilization (with Lime @ 32#/sy)         5,287         sy         \$ 3.00           11" Concrete Pavement         4,946         sy         \$ 44.00           6" Curb & Gutter         4,605         If         \$ 6.50           4" Topsoil         5,543         sy         \$ 5.00           4' Concrete Sidewalk         6,140         sf         \$ 5.00           Turn Lanes and Median Openings         1,110         sy         \$ 44.00	Item Description         Quantity         Unit         Unit Price           Unclassified Street Excavation         3,582         cy         \$ 10.50         \$           6" Lime Stabilization (with Lime @ 32#/sy)         5,287         sy         \$ 3.00         \$           11" Concrete Pavement         4,946         sy         \$ 44.00         \$           6" Curb & Gutter         4,605         If         \$ 6.50         \$           4" Topsoil         5,543         sy         \$ 5.00         \$           4' Concrete Sidewalk         6,140         sf         \$ 5.00         \$           Turn Lanes and Median Openings         1,110         sy         \$ 44.00         \$

Paving Construction Cost Subtotal: \$ 408,272

Mai	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	12,248				
$\checkmark$	Traffic Control	Construction Phase Traffic Control	3%	\$	12,248				
$\checkmark$	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	16,331				
$\checkmark$	Roadway Drainage	Standard Internal System	30%	\$	122,481				
$\checkmark$	Illumination		11%	\$	45,974				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
$\checkmark$	Water	Minor Adjustments	6%	\$	24,496				
$\checkmark$	Sewer	Minor Adjustments	4%	\$	16,331				
$\checkmark$	Establish Turf / Erosion Control		3%	\$	12,248				
$\checkmark$	Basic Landscaping		3%	\$	12,248				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:		\$0	\$	-				
		Allowa	ınce Subtotal:	\$	274,606				
	Paving and Allowance Subtotal:								
	Construction Contingency: 15%								
		Construction C	ost TOTAL:	\$	786,000				

Impact Fee Project Cost Sun	nmary		
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:	Existing Alignment	10%	\$ 78,600
	\$ 1,061,000		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

10.50 | \$

updated: 10/2/2012

**Item Cost** 

101,033

4,628,853

4,874,000

244,328

Project Information: Description: Project No. B-24, C-14

Name: Wagley Robertson Rd. (1) This project consists of the

Limits: 250' N. of US 81 to 525' N of Hawks Landing Rd. construction of a new four-lane divided

Quantity

9,622

Unit

СУ

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial Length (If): 2,165

108 Unclassified Street Excavation

Length (If): 2,165 Service Area(s): C, B

No. Item Description

			-,	-,	-		-	,
208	6" Lime Stabilization (with Lime @ 3	32#/sy)	14,433	sy	\$	3.00	\$	43,300
308	11" Concrete Pavement		13,471	sy	\$	44.00	\$	592,729
408	6" Curb & Gutter		8,660	lf	\$	6.50	\$	56,290
508	4" Topsoil		10,825	sy	\$	5.00	\$	54,125
806	4' Concrete Sidewalk		17,320	sf	\$	5.00	\$	86,600
701	Turn Lanes and Median Openings		1,565	sy	\$	44.00	\$	68,865
	Paving Construction Cost S			Subtotal:	\$	1,002,942		
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
<b>V</b>	Prep ROW					3%	\$	30,088
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers					2%	\$	21,530
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	300,883
	Illumination					11%	\$	112,939
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		60,177
	Sewer	Minor Adjustments				4%	\$	40,118
$\sqrt{}$	Establish Turf / Erosion Control					3%	\$	30,088
	Basic Landscaping					3%	\$	30,088
,	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
√	Other:	Bridge over US 287				3,000,000	_	3,000,000
Allowance Subtotal:						\$	3,625,910	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,874,000
Engineering/Survey/Testing:		20%	\$ 974,800
Mobilization		5%	\$ 243,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 974,800
	\$ 7,067,000		

**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.

\$

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:Description:Project No.C-15Name:Wagley Robertson Rd. (2)This project consists of the

Limits: 525' N of Hawks Landing Rd.to 125' N of Hawks Landing construction of a new four-lane

Impact Fee Class: MA4D divided major arterial.

Ultimate Class: Major Arterial

Length (If): 440 Service Area(s): C, ETJ

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
108	Unclassified Street Excavation	1,956	су	\$	10.50	\$ 20,533
208	6" Lime Stabilization (with Lime @ 32#/sy)	2,933	sy	\$	3.00	\$ 8,800
308	11" Concrete Pavement	2,738	sy	\$	44.00	\$ 120,462
408	6" Curb & Gutter	1,760	lf	\$	6.50	\$ 11,440
508	4" Topsoil	2,200	sy	\$	5.00	\$ 11,000
608	4' Concrete Sidewalk	3,520	sf	\$	5.00	\$ 17,600
701	Turn Lanes and Median Openings	318	sy	\$	44.00	\$ 13,996
	P	aving Constr	uction (	Cost	Subtotal:	\$ 203,831

Maj	or Construction Component Allow			
	Item Description	Notes	Allowance	Item Cost
1	Prep ROW		3%	\$ 6,115
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers		2%	\$ 4,376
	Roadway Drainage	Standard Internal System	30%	\$ 61,149
	Illumination		11%	\$ 22,953
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 12,230
	Sewer	Minor Adjustments	4%	\$ 8,153
	Establish Turf / Erosion Control		3%	\$ 6,115
	Basic Landscaping		3%	\$ 6,115
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:		\$0	\$ -
		Allowa	ance Subtotal:	\$ 127,206
Paving and Allowance Subtotal:				\$ 331,037
Construction Contingency: 15%				\$ 49,656
		Construction C	ost TOTAL:	\$ 381,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	381,000			
Engineering/Survey/Testing:		20%	\$	76,200			
Mobilization		5%	\$	19,050			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	76,200			
	\$	552,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated:

**Unit Price** 

10/2/2012

**Item Cost** 

Project Information:

Name:
Wagley Robertson Rd. (3)
Limits:
Description:
Project No.
C-16
This project consists of the widening of 125' N of Hawks Landing Rd. to 80' S of Darby Ln. a two-lane undivided concrete facility

Impact Fee Class: MA4D (1/2) into a four-lane divided major arterial.

Quantity

Unit

Ultimate Class: Major Arterial

Length (If): 2,275 Service Area(s): C, ETJ

No. Item Description

140.	item bescription		Qualitity		0	111100		item oost
110	Unclassified Street Excavation		5,308	су	\$	10.50	\$	55,738
210	6" Lime Stabilization (with Lime @ 32	2#/sy)	7,583	sy	\$	3.00	\$	22,750
310	11" Concrete Pavement		7,078	sy	\$	44.00	\$	311,422
410	6" Curb & Gutter		6,825	lf	\$	6.50	\$	44,363
510	4" Topsoil		8,721	sy	\$	5.00	\$	43,604
610	4' Concrete Sidewalk		9,100	sf	\$	5.00	\$	45,500
701	Turn Lanes and Median Openings		1,645	sy	\$	44.00	\$	72,364
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	595,740
							_	
Majo	r Construction Component Allowa	1						
	Item Description	Notes			All	owance	_	Item Cost
٧,	Prep ROW					3%		17,872
٧,	Traffic Control	Construction Phase	Traffic Control			3%		17,872
٧,	Pavement Markings/Markers					2%		12,789
٧,	Roadway Drainage	Standard Internal Sys	stem			30%		178,722
√	Illumination					11%	\$	67,085
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
√,	Water	Minor Adjustments				6%		35,744
√,	Sewer	Minor Adjustments				4%		23,830
√,	Establish Turf / Erosion Control					3%		17,872
V	Basic Landscaping					3%		17,872
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	
Allowance Subtotal:							\$	389,658
			Daving on	d Allesso		Cubtotoli	\$	005 200
		Constru	Paving and uction Conti			15%	-	<b>985,399</b> 147,810
		Constit						1,134,000
		Construction Cost TOTAL:						

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,134,000			
Engineering/Survey/Testing:		20%	\$	226,800			
Mobilization		5%	\$	56,700			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	113,400			
	\$	1,531,000					

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. C-17, E-13

Name: Wagley Robertson Rd. (4) This project consists of the

Limits: Hillwood Blvd. to 440' N of Coneflower Trl. reconstruction of a two-lane undivided

Impact Fee Class:MA4D-Basphalt facility into a four-lane dividedUltimate Class:Major Arterialmajor arterial.

Length (If): 3,315
Service Area(s): C,E

**Roadway Construction Cost Projection** No. Item Description Quantity Unit **Unit Price Item Cost** 109 Unclassified Street Excavation 15,102 су \$ 10.50 158,568 6" Lime Stabilization (with Lime @ 32#/sy) 22,837 \$ 3.00 \$ 68,510 sy 309 11" Concrete Pavement 21,363 \$ 44.00 \$ 939.987 sy 6" Curb & Gutter 409 13,260 lf \$ 6.50 \$ 86,190 509 4" Topsoil \$ 15,838 \$ 5.00 79,192 sy 609 4' Concrete Sidewalk 26,520 \$ 132,600 sf \$ 5.00 701 Turn Lanes and Median Openings 2,396 \$ 44.00 \$ 105,445 sy

Paving Construction Cost Subtotal: \$ 1,570,490

Major Construction Component Allow	vances:						
Item Description	Notes	Allowance		Item Cost			
√ Prep ROW		3%	\$	47,115			
√ Traffic Control	Construction Phase Traffic Control	3%	\$	47,115			
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	62,820			
√ Roadway Drainage	Standard Internal System	30%	\$	471,147			
√ Illumination		11%	\$	176,849			
√ Special Drainage Structures	Two Stream Crossings	\$ 500,000	\$	500,000			
√ Water	Minor Adjustments	6%	\$	94,229			
√ Sewer	Minor Adjustments	4%	\$	62,820			
√ Establish Turf / Erosion Control		3%	\$	47,115			
√ Basic Landscaping		3%	\$	47,115			
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000			
Other:		\$0	\$	-			
	Allow	ance Subtotal:	\$	1,706,323			
	Paving and Allowance Subtotal:						
	Construction Contingency	15%	\$	491,522			
	Construction C	ost TOTAL:	\$	3,769,000			

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,769,000			
Engineering/Survey/Testing:		20%	\$	753,800			
Mobilization		5%	\$	188,450			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	376,900			
	\$	5,088,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. C-18

Name: Wagley Robertson Rd. (5) This project consists of the

Limits: 225' S. of Prairie Clover Trl. to Tarrant Pkwy. construction of a new four-lane divided

Quantity Unit Unit Price

Impact Fee Class: MA4D major arterial.
Ultimate Class: Major Arterial

Length (If): 2,210 Service Area(s): C

No. Item Description

	item becomplien		quantity	5	•		110111 0001
108	Unclassified Street Excavation		9,822	су	\$	10.50	\$ 103,133
208	6" Lime Stabilization (with Lime @ 32#/sy)		14,733	sy	\$	3.00	\$ 44,200
308	11" Concrete Pavement		13,751	sy	\$	44.00	\$ 605,049
408	6" Curb & Gutter		8,840	lf	\$	6.50	\$ 57,460
508	4" Topsoil		11,050	sy	\$	5.00	\$ 55,250
608	4' Concrete Sidewalk		17,680	sf	\$	5.00	\$ 88,400
701	Turn Lanes and Median Openings		1,598	sy	\$	44.00	\$ 70,296
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 1,023,789
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			Al	lowance	Item Cost
	Prep ROW					3%	\$ 30,714
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 40,952
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 307,137
	Illumination					11%	\$ 115,286
	Special Drainage Structures	Two Stream Crossin	gs		\$	500,000	\$ 500,000
	Water	Minor Adjustments				6%	\$ 61,427
	Sewer	Minor Adjustments				4%	40,952
	Establish Turf / Erosion Control					3%	30,714
	Basic Landscaping					3%	\$ 30,714
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	\$ -
				Allowa	nce	Subtotal:	\$ 1,157,894
			Paving an			Subtotal:	\$ 2,181,683
		Constru	uction Conti			15%	327,252
			Constru	ction C	ost	TOTAL:	\$ 2,509,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,509,000			
Engineering/Survey/Testing:		20%	\$	501,800			
Mobilization		5%	\$	125,450			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	501,800			
	\$	3,638,000					

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# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Item Cost** 

Project Information:

Name:

Limits:

Impact Fee Class:

Ultimate Class:

Name:

Wagley Robertson Rd. (6)

Major Arterial

Description:

Project No.

C-19, E-14

This project consists of the reconstruction of a two-lane undivided asphalt facility into a four-lane divided major arterial.

Quantity Unit Unit Price

Length (If): 850 Service Area(s): C, E

No. Item Description

110.	Rein Becomption		quantity		;	11 1100		110111 0001
108	Unclassified Street Excavation		3,778	су	\$	10.50	\$	39,667
208	6" Lime Stabilization (with Lime @ 32#/sy)			sy	\$	3.00	\$	17,000
308	11" Concrete Pavement		5,289	sy	\$	44.00	\$	232,711
408	6" Curb & Gutter		3,400	lf	\$	6.50	\$	22,100
508	4" Topsoil		4,250	sy	\$	5.00	\$	21,250
608	4' Concrete Sidewalk		6,800	sf	\$	5.00	\$	34,000
701	Turn Lanes and Median Openings		614	sy	\$	44.00	\$	27,037
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	393,765
Majo	or Construction Component Allowa	nces:						
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	11,813
	Traffic Control	Construction Phase	Traffic Control			3%	\$	11,813
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	15,751
	Roadway Drainage	Standard Internal Sy	stem			30%		118,129
	Illumination					11%	\$	44,341
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		23,626
$\sqrt{}$	Sewer	Minor Adjustments				4%		15,751
$\sqrt{}$	Establish Turf / Erosion Control					3%		11,813
	Basic Landscaping					3%		11,813
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0	_	-
Allowance Subtotal:								264,849
			Paving an					658,614
		Constru	uction Conti			15%		98,792
			Construc	ction C	ost <sup>-</sup>	ΓΟTAL:	\$	758,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	758,000			
Engineering/Survey/Testing:		20%	\$	151,600			
Mobilization		5%	\$	37,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	75,800			
	\$	1,023,000					

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### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

2,059,000

Project Information: Description: Project No. C-20
Name: Harmon Rd. (1) This project consists of the

Name: Harmon Rd. (1) This project consists of the Limits: Keller Hicks Rd. to Existing Harmon Rd. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial
Length (If): 2,300
Service Area(s): C

No. Item Description

109	Unclassified Street Excavation		10,478	су	\$	10.50	\$	110,017
209	09 6" Lime Stabilization (with Lime @ 32#/sy)		15,844	sy	\$	3.00	\$	47,533
309	11" Concrete Pavement		14,822	sy	\$	44.00	\$	652,178
409	6" Curb & Gutter		9,200	lf	\$	6.50	\$	59,800
509	4" Topsoil		10,989	sy	\$	5.00	\$	54,944
609	4' Concrete Sidewalk		18,400	sf	\$	5.00	\$	92,000
701	Turn Lanes and Median Openings		1,663	sy	\$	44.00	\$	73,159
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,089,631
Majo	or Construction Component Allowa	inces:		-				
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	32,689
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	43,585
$\checkmark$	Roadway Drainage	Standard Internal Sys	stem			30%	\$	326,889
$\checkmark$	Illumination					11%	\$	122,700
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\checkmark$	Water	Minor Adjustments				6%		65,378
$\checkmark$	Sewer	Minor Adjustments				4%		43,585
	Establish Turf / Erosion Control					3%		32,689
	Basic Landscaping					3%		32,689
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:	\$0				_	-	
Allowance Subtotal:						Subtotal:	\$	700,205
			Paving an	d Allowa	nce S	Subtotal:	\$	1,789,836
	Paving and Allowance Subtotal:  Construction Contingency: 15%							268,475

Quantity

Unit

Construction Cost TOTAL: \$

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,059,000			
Engineering/Survey/Testing:		20%	\$	411,800			
Mobilization		5%	\$	102,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	411,800			
	\$	2,986,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. C-21

Name: Harmon Rd. (2)

Limits: Future Harmon Alignment to 260' N. of Golden Triangle Blvd.

Impact Fee Class: MA4D-B This project consists of the reconstruction of a two-

Ultimate Class: Major Arterial lane undivided asphalt facility into a four-lane

Length (If): 975 divided major arterial.

Service Area(s): C, ETJ

	Item Description	,	Quantity	Unit	Ur	nit Price		Item Cost
109	Unclassified Street Excavation		4,442	су	\$	10.50	\$	46,638
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	6,717	sy	\$	3.00	\$	20,150
309	11" Concrete Pavement		6,283	sy	\$	44.00	\$	276,467
409	6" Curb & Gutter		3,900	lf	\$	6.50	\$	25,350
509	4" Topsoil		4,658	sy	\$	5.00	\$	23,292
609	4' Concrete Sidewalk		7,800	sf	\$	5.00	\$	39,000
701	Turn Lanes and Median Openings		705	sy	\$	44.00	\$	31,013
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	461,909
Maid	or Construction Component Allowa	ancos:	_	_		_		
Iviajo	Item Description	Notes			ΙΔΙ	lowance		Item Cost
V	Prep ROW	110103			All	3%	\$	13,857
Ì	Traffic Control	Construction Phase	Traffic Control			3%		13,857
V	Pavement Markings/Markers	Pavement Markings				4%	-	18,476
V	Roadway Drainage	Standard Internal Sys		'		30%		138,573
Ż	Illumination	Staridard internal Cyt	0.0111			11%		52,014
Ż	Special Drainage Structures	Minor Stream Crossi	na		\$	250,000	\$	250,000
Ì	Water	Minor Adjustments	9		_	6%	\$	27,715
Ì	Sewer	Minor Adjustments				4%		18,476
V	Establish Turf / Erosion Control					3%		13,857
	Basic Landscaping					3%		13,857
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0		-
		•		Allowa	nce	Subtotal:	\$	560,683
Paving and Allowance Subtotal:							1,022,592	
		Constru	uction Conti			15%	-	153,389
			Construc	ction C	ost	TOTAL:	\$	1,176,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,176,000
Engineering/Survey/Testing:		20%	\$ 235,200
Mobilization		5%	\$ 58,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 117,600
	Impact Fee Project C	ost TOTAL:	\$ 1,588,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. C-22

Name: Harmon Rd. (3)

Limits: 260' N. of Golden Triangle Blvd. to Future Golden Triangle Alignment

Impact Fee Class: MA4D-B

Ultimate Class: Major Arterial This project consists of the construction of a new

Length (If): 635 four-lane divided major arterial.

Service Area(s): C

	Item Description	,	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		2,893	су	\$	10.50	\$	30,374
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	4,374	sy	\$	3.00	\$	13,123
309	9 11" Concrete Pavement 4,092 sy				\$	44.00	\$	180,058
409	6" Curb & Gutter		2,540	lf	\$	6.50	\$	16,510
509	4" Topsoil		3,034	sy	\$	5.00	\$	15,169
609	4' Concrete Sidewalk		5,080	sf	\$	5.00	\$	25,400
701	Turn Lanes and Median Openings		459	sy	\$	44.00	\$	20,198
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	300,833
Maio	or Construction Component Allowa	inces:						
Maje	Item Description	Notes			Allo	owance		Item Cost
	Prep ROW					3%	\$	9,025
	Traffic Control	None Anticipated				0%	\$	-
$\checkmark$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	12,033
$\checkmark$	Roadway Drainage	Standard Internal Sy	stem			30%	\$	90,250
$\checkmark$	Illumination					11%	\$	33,876
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\checkmark$	Water	Minor Adjustments				6%	\$	18,050
$\checkmark$	Sewer	Minor Adjustments				4%	\$	12,033
	Establish Turf / Erosion Control					3%	\$	9,025
	Basic Landscaping					3%	\$	9,025
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0		-
Allowance Subtotal:						\$	193,317	
							\$	404.454
	Paving and Allowance Subtotal: Construction Contingency: 15%							<b>494,151</b> 74,123
		Constru				15%	-	,
	Construction Cost TOTAL:							569,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 569,000
Engineering/Survey/Testing:		20%	\$ 113,800
Mobilization		5%	\$ 28,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 113,800
	\$ 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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion: [	Description:	Project No.	C-23
Name:	Harmon Rd. (4)		This project cons	ists of the
Limits:	Bonds Ranch Rd. to 475' S. of Heritage	Trace Pkwy.	widening of an ex	cisting two-
Impact Fee Class:	MA4D-B (1/2)		lane undivided co	oncrete facility
Ultimate Class:	Major Arterial		to a four-lane div	ided maior
Length (If):	3,915		arterial.	
Service Area(s):	C			

	Item Description	Jeetion	Quantity	Unit	Uni	it Price	Item Cost
111	Unclassified Street Excavation		9,135	СУ	\$	10.50	\$ 95,918
211	6" Lime Stabilization (with Lime @ 3	32#/sv)	13,485	sy	\$	3.00	\$ 40,455
311	11" Concrete Pavement		12,615	sy	\$	44.00	\$ 555,060
411	6" Curb & Gutter		11,745	lf	\$	6.50	\$ 76,343
511	4" Topsoil		14,138	sy	\$	5.00	\$ 70,688
611	4' Concrete Sidewalk		15,660	sf	\$	5.00	\$ 78,300
701	Turn Lanes and Median Openings		2,830	sy	\$	44.00	\$ 124,530
	, ,	Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 1,041,292
Majo	or Construction Component Allow						
	Item Description	Notes			Allo	owance	Item Cost
√.	Prep ROW					3%	\$ 31,239
√.	Traffic Control	Construction Phase	Traffic Control			3%	\$ 31,239
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 41,652
√.	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 312,388
	Illumination					11%	\$ 117,257
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 62,478
	Sewer	Minor Adjustments				4%	\$ 41,652
	Establish Turf / Erosion Control					3%	\$ 31,239
$\sqrt{}$	Basic Landscaping					3%	\$ 31,239
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile		9	\$150,000	\$ 150,000
	Other: \$0				\$ -		
Allowance Subtotal:						\$ 850,381	
Paving and Allowance Subtotal:							1,891,673
		Constru	uction Conti			15%	\$ 283,751
			Construc	ction C	ost T	OTAL:	\$ 2,176,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,176,000
Engineering/Survey/Testing:		20%	\$ 435,200
Mobilization		5%	\$ 108,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 217,600
	Impact Fee Project (	Cost TOTAL:	\$ 2,938,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information	tion:	Description:	Project No.	C-24
Name:	Harmon Rd. (5)		This project cons	sists of the
Limits:	475' S. of Heritage Trace Pkwy. to Pre	esidio Vista Dr.	reconstruction of	a two-lane
Impact Fee Class:	MA4D-B		undivided asphal	t facility into a
Ultimate Class:	Major Arterial		four-lane divided	•
Length (If):	2,870			
Service Area(s):	C			

	Item Description	,	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		13,074	су	\$	10.50	\$	137,282
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	19,771	sy	\$	3.00	\$	59,313
309	11" Concrete Pavement		18,496	sy	\$	44.00	\$	813,804
409	6" Curb & Gutter		11,480	lf	\$	6.50	\$	74,620
509	4" Topsoil		13,712	sy	\$	5.00	\$	68,561
609	4' Concrete Sidewalk		22,960	sf	\$	5.00	\$	114,800
701	Turn Lanes and Median Openings		2,075	sy	\$	44.00	\$	91,290
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,359,670
Maio	or Construction Component Allow	ances:	_	_		_		_
	Item Description	Notes			Allo	owance	П	Item Cost
√	Prep ROW					3%	\$	40,790
	Traffic Control	Construction Phase	Traffic Control			3%	\$	40,790
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	54,387
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	407,901
	Illumination					11%	\$	153,109
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	81,580
	Sewer	Minor Adjustments				4%	\$	54,387
	Establish Turf / Erosion Control					3%	\$	40,790
	Basic Landscaping					3%	\$	40,790
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:							
Allowance Subtotal:					\$	1,064,524		
		_	Paving an					2,424,195
		Constru	uction Conti	-		15%		363,629
			Construc	ction C	ost 1	OTAL:	\$	2,788,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,788,000
Engineering/Survey/Testing:		20%	\$ 557,600
Mobilization		5%	\$ 139,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 278,800
	Impact Fee Project C	ost TOTAL:	\$ 3,764,000

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. C-25 Description: Name: Harmon Rd. (6) This project consists of the reconstruction of a two-Limits: Presidio Vista Dr. to US 287 SBFR lane undivided asphalt facility into a six-lane divided principal arterial.

Impact Fee Class: P6D-B

**Ultimate Class:** Principal Arterial

Length (If): 3,065 Service Area(s): С

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
113	Unclassified Street Excavation	18,731	су	\$	10.50	\$	196,671
213	6" Lime Stabilization (with Lime @ 32#/sy)	28,607	sy	\$	3.00	\$	85,820
313	11" Concrete Pavement	27,244	sy	\$	44.00	\$	1,198,756
413	6" Curb & Gutter	12,260	lf	\$	6.50	\$	79,690
513	4" Topsoil	13,963	sy	\$	5.00	\$	69,814
613	4' Concrete Sidewalk	24,520	sf	\$	5.00	\$	122,600
701	Turn Lanes and Median Openings	2,216	sy	\$	44.00	\$	97,493
	D.	wine Const	atian (		Culetetel	Φ.	4 OEO 042

Paving Construction Cost Subtotal: \$ 1,850,843

Mai	or Construction Component Allow	ances:	_			
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	55,525	
	Traffic Control	Construction Phase Traffic Control	3%	\$	55,525	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	74,034	
$\checkmark$	Roadway Drainage	Standard Internal System	30%	\$	555,253	
	Illumination		11%	\$	208,418	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	111,051	
	Sewer	Minor Adjustments	4%	\$	74,034	
	Establish Turf / Erosion Control		3%	\$	55,525	
	Basic Landscaping		3%	\$	55,525	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000	
	Other:		\$0	\$	-	
		Allowa	ance Subtotal:	\$	1,394,890	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	486,860	
		Construction C	ost TOTAL:	\$	3,733,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,733,000
Engineering/Survey/Testing:		20%	\$ 746,600
Mobilization		5%	\$ 186,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 373,300
	Impact Fee Project	t Cost TOTAL:	\$ 5,040,000

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. C-26

Name: Harmon Rd. (7) This project consists of the

Name: Harmon Rd. (7)

Limits: US 287 SBFR to Future N. Tarrant Pkwy.

This project consists of the construction of a new six-lane divided

Impact Fee Class: P6D-B principal arterial.

Ultimate Class: Principal Arterial

Length (If): 875 Service Area(s): C

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
113	Unclassified Street Excavation	5,347	су	\$	10.50	\$ 56,146
213	6" Lime Stabilization (with Lime @ 32#/sy)	8,167	sy	\$	3.00	\$ 24,500
313	11" Concrete Pavement	7,778	sy	\$	44.00	\$ 342,222
413	6" Curb & Gutter	3,500	lf	\$	6.50	\$ 22,750
513	4" Topsoil	3,986	sy	\$	5.00	\$ 19,931
613	4' Concrete Sidewalk	7,000	sf	\$	5.00	\$ 35,000
701	Turn Lanes and Median Openings	633	sy	\$	44.00	\$ 27,832
	P	aving Consti	ruction (	Cost	Subtotal:	\$ 528,381

Item Description	vances:	Allowance	Item Cost
√ Prep ROW		3%	\$ 15,851
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	21,135
√ Roadway Drainage	Standard Internal System	30%	158,514
√ Illumination	·	11%	\$ 59,500
Special Drainage Structures	None Anticipated	\$ -	\$ , -
√ Water	Minor Adjustments	6%	\$ 31,703
√ Sewer	Minor Adjustments	4%	\$ 21,135
√ Establish Turf / Erosion Control	, i	3%	\$ 15,851
√ Basic Landscaping		3%	\$ 15,851
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:	·	\$0	-
	Allo	wance Subtotal:	\$ 339,541
			•
	Paving and Allo	wance Subtotal:	\$ 867,922
	Construction Contingen		130,188
	Construction	Cost TOTAL:	\$ 999,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 999,000
Engineering/Survey/Testing:		20%	\$ 199,800
Mobilization		5%	\$ 49,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 199,800
	\$ 1,449,000		

**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.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. C-27
Name: Harmon Rd. (8) This project consists of the

Name: Harmon Rd. (8)

Limits: Harmon Rd. (8)

This project consists of the construction of a new four-lane divided

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial 4,445
Service Area(s): C

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Ur	nit Price		Item Cost
108	Unclassified Street Excavation	19,756	су	\$	10.50	\$	207,433
208	6" Lime Stabilization (with Lime @ 32#/sy)	29,633	sy	\$	3.00	\$	88,900
308	11" Concrete Pavement	27,658	sy	\$	44.00	\$	1,216,942
408	6" Curb & Gutter	17,780	lf	\$	6.50	\$	115,570
508	4" Topsoil	22,225	sy	\$	5.00	\$	111,125
608	4' Concrete Sidewalk	35,560	sf	\$	5.00	\$	177,800
701	Turn Lanes and Median Openings	3,213	sy	\$	44.00	\$	141,388
	P	aving Consti	uction (	Cost	Subtotal:	\$	2,059,159
Made						_	_,

Majo	or Construction Component Allowa	ances:						
	Item Description	Notes	Allowance		Item Cost			
	Prep ROW		3%	\$	61,775			
	Traffic Control	None Anticipated	0%	\$	-			
	Pavement Markings/Markers		2%	\$	44,204			
	Roadway Drainage	Standard Internal System	30%	\$	617,748			
	Illumination		11%	\$	231,876			
	Special Drainage Structures	None Anticipated	\$ -	\$	-			
	Water	Minor Adjustments	6%	\$	123,550			
	Sewer	Minor Adjustments	4%	\$	82,366			
	Establish Turf / Erosion Control		3%	\$	61,775			
	Basic Landscaping		3%	\$	61,775			
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000			
	Other:		\$0	\$	-			
		Allowa	ınce Subtotal:	\$	1,435,068			
	Paving and Allowance Subtotal:							
		Construction Contingency:	15%	\$	524,134			
		Construction C	ost TOTAL:	\$	4,019,000			

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,019,000
Engineering/Survey/Testing:		20%	\$ 803,800
Mobilization		5%	\$ 200,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 803,800
	\$ 5,828,000		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Item Cost

**Unit Price** 

Project Information:

Name:
Horseman Rd.
Limits:
Bailey Boswell Rd. to 600' N. of Canchim St.
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Description:
Project No.
C-28

This project consists of the widening of a two-lane undivided concrete facility into a four-lane undivided minor arterial.

Quantity

Unit

Length (If): 1,975 Service Area(s): C

No. Item Description

104	Unclassified Street Excavation		3,182	су	\$	10.50	\$	33,410
204	6" Lime Stabilization (with Lime @ :	32#/sy)	6,254	sy	\$	3.00	\$	18,763
304	9" Concrete Pavement 6,035 sy			\$	36.00	\$	217,250	
404	6" Curb & Gutter		1,975	lf	\$	6.50	\$	12,838
504	4" Topsoil		1,646	sy	\$	5.00	\$	8,229
604	4' Concrete Sidewalk		7,900	sf	\$	5.00	\$	39,500
701	Turn Lanes and Median Openings		0					
		Pa	ving Const	ruction (	Cost	Subtotal:	\$	329,990
Maj	or Construction Component Allow	-						
	Item Description	Notes			Al	lowance		Item Cost
$\sqrt{}$	Prep ROW					3%		9,900
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%		9,900
$\sqrt{}$	Pavement Markings/Markers					2%		7,084
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	98,997
	Illumination					11%	\$	37,159
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	19,799
	Sewer	Minor Adjustments				4%		13,200
	Establish Turf / Erosion Control					3%		9,900
	Basic Landscaping					3%	\$	9,900
I	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
				Allowa	ance	Subtotal:	\$	465,838
			<u> </u>			0.14.4.1	_	705.60-
			Paving an	a Allowa	ance	Subtotal:	5	795.827

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 916,000
Engineering/Survey/Testing:		20%	\$ 183,200
Mobilization		5%	\$ 45,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 91,600
	\$ 1,237,000		

**Construction Contingency:** 

**Construction Cost TOTAL:** 

**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.

\$

15%

119,374

916,000

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area D

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>		Cost
A-19, D-1	MA4D-B	Timberland Blvd. (1)	Beach St. to 425' E of Lillybrook Ln.	\$	544,917
A-20, D-2	MA4D-B	Timberland Blvd. (2)	425' E of Lillybrook Ln. to Caylor Rd.	\$	1,970,000
A-21, D-3	MA4D-B	Timberland Blvd. (3)	Caylor Rd. To Park Vista Blvd.	\$	1,571,000
D-4	MA4D-B (1/2)	Timberland Blvd. (4)	Park Vista Blvd. to 390' E of Harvest Oaks Dr.	\$	2,129,000
A-22, D-5	MA4D-B	Timberland Blvd. (5)	390' E of Harvest Oaks Dr. to E. City Limits	\$	695,000
D-6	M4U-B	Keller Hicks Rd. (1)	Riverside Dr. to 600' W of Ridgeview Cir.	\$	5,292,000
D-7	M4U-B	Keller Hicks Rd. (2)	600' W. of Ridgeview Cir. to Alta Vista Rd.	\$	1,071,577
D-8	M4U-B	Keller Hicks Rd. (3)	Alta Vista Rd. to Park Vista Blvd.	\$	1,304,000
D-9	M4U-B	Keller Hicks Rd. (4)	Park Vista Blvd. to Katy Rd.	\$	5,176,000
D-10	P6D (1/3)	Golden Triangle Blvd. (3)	IH-35W NBFR to Katy Rd.	\$	13,397,000
D-11	MA4D-B (1/2)	Kroger Dr.	Park Vista Blvd. to US 377	\$	1,478,000
D-12	P6D (1/3)	N. Tarrant Pkwy. (2)	IH-35W NBFR to US 377	\$	6,661,000
D-13	M4U-B (1/2)	Summerfields Blvd.	N Riverside Dr. to Cannonwood Dr.	\$	410,000
D-14	MA4D-B	Old Denton Rd. (2)	SH 170 EB to 190' N of Hidden Valley Dr.	\$	1,188,000
D-15	MA4D-B (1/2)	Old Denton Rd. (3)	190' N of Hidden Valley Dr. to 135' S of San Fernando Dr.	\$	618,000
D-16	MA4D-B	Old Denton Rd. (4)	135' S of San Fernando Dr. to 325' N of Sawtimber Trl.	\$	1,071,000
D-17	MA4D-B (1/2)	N. Riverside Dr. (1)	Timberland Blvd. to Keller Hicks Rd.	\$	736,000
D-18	MA4D-B (1/2)	N. Riverside Dr. (2)	Keller Hicks Rd. to 410' N of Golden Triangle Blvd.	\$	1,399,000
D-19	MA4D-B	N. Riverside Dr. (3)	410' N of Golden Triangle Blvd. to Golden Triangle Blvd.	\$	950,000
D-20	MA4D-B	N. Riverside Dr. (4)	Dalton St. to N. Tarrant Pkwy.	\$	6,726,000
D-21	MA4D-B (1/2)	N. Riverside Dr. (5)	N. Tarrant Pkwy. to Summerfields Blvd.	\$	2,824,000
D-22	MA4D-B (1/2)	N. Riverside Dr. (6)	Summerfields Blvd. to 710' S of Princess Victoria Ct.	\$	1,061,000
A-27, D-23	P6D-B	N. Beach St. (4)	SH 170 EBFR to 410' N of Saratoga Downs Way	\$	3,383,000
A-28, D-24	P6D (1/3)	N. Beach St. (5)	410' N of Saratoga Downs to Timberland Blvd.	\$	1,378,000
D-25	P6D (1/3)	N. Beach St. (6)	Timberland Blvd. to Keller Hicks Rd.	\$	7,287,000
D-26	P6D (1/3)	N. Beach St. (7)	Keller Hicks Rd. to Golden Triangle Blvd.	\$	7,861,000
D-27	P6D (1/3)	N. Beach St. (8)	Golden Triangle Blvd. to Vista Meadows Dr.	\$	1,456,000
D-28	P6D-B (2/3)	N. Beach St. (9)	Vista Meadows Dr. to Alta Vista Rd.	\$	1,393,000
D-29	P6D-B	N. Beach St. (10)	Alta Vista Rd. to Heritage Trace Pkwy.	\$	1,835,000
D-30	P6D-B	N. Beach St. (11)	Heritage Trace Pkwy. to Heritage Glen Dr.	\$	3,889,000
D-31	P6D-B (2/3)	N. Beach St. (12)	Heritage Glen Dr. to 155' S of Springview Ln.	\$	3,864,000
D-32	P6D (1/3)	N. Beach St. (13)	155' S of Springview Ln. to 380' S of Spring Mist Cv.	\$	198,000
D-33	MA4D-B	Park Vista Blvd. (2)	Timberland Blvd. to Caylor Rd.	\$	1,240,000
D-34	MA4D-B	Park Vista Blvd. (3)	Keller Hicks Rd. to Golden Triangle Blvd.	\$	3,663,000
D-35	MA4D-B	Park Vista Blvd. (4)	Golden Triangle Blvd. to Ray White Rd./Wyndrook St.	\$	4,151,000
D-36	MA4D-B	Ray White Rd. (1)	Wyndrook St. to 320' S of Pinellas Ave.	\$	979,000
D-37	MA4D-B	Ray White Rd. (2)	320' S of Pinellas Ave. to 230' N of Wall Price Keller Rd.	\$	2,067,000
D-38	MA4D-B	Ray White Rd. (3)	230' N of Wall Price Keller Rd. to Wall Price Keller Rd.	\$	284,000
D-39	MA4D-B	Ray White Rd. (4)	Wall Price Keller Rd. to 145' N of Archer Dr.	\$	763,000
D-40	MA4D-B	Ray White Rd. (5)	145' N of Archer Dr. to 170' N of Mirage Dr.	\$	616,000
D-41	MA4D-B (1/2)	Ray White Rd. (6)	Shiver Rd. to N. Tarrant Pkwy.	\$	2,283,000
				TOTAL \$	106,862,494

\*Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

**NOTE:** 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.

# City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	ion:	Description:	Project No.	A-19, D-1				
Name:	Timberland Blvd. (1)	This completed project consisted of the						
Limits:	Beach St. to 425' E of Lillybrook Ln.	construction of a four-lane divided major arterial.  The City contributed \$544,917 from the 2008 Bond Program.						
Impact Fee Class:	MA4D-B							
Ultimate Class:	Major Arterial							
Length (If):	2,055	<b></b>						
Service Area(s):	A, D							

Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance		Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$	544,917
	Impact Fee Project C	ost TOTAL :	\$	544,917
	impaot i ce i reject o	OST TOTAL.	¥	044,011

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50 \$

10/2/2012 updated:

**Item Cost** 

76,533

**Project Information:** Project No. A-20, D-2 Description: Name: Timberland Blvd. (2) This project consists of the reconstruction of an Limits: 425' E of Lillybrook Ln. to Caylor Rd. existing two-lane undivided asphalt facility into a Impact Fee Class: MA4D-B four-lane divided major arterial.

Quantity

7.289

Unit

Cy

\$

**Ultimate Class:** Major Arterial Length (If): 1,600 Service Area(s): A, D

No. Item Description

109 Unclassified Street Excavation

103	σ of official of the contract						Ψ	10,555
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	11,022	sy	\$	3.00	\$	33,067
309	11" Concrete Pavement	10,311 sy			\$	44.00	\$	453,689
409	6" Curb & Gutter		6,400	lf	\$	6.50	\$	41,600
509	4" Topsoil		7,644	sy	\$	5.00	\$	38,222
609	4' Concrete Sidewalk		12,800	sf	\$	5.00	\$	64,000
701	Turn Lanes and Median Openings		1,157	sy	\$	44.00	\$	50,893
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$	758,004
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	22,740
	Traffic Control	Construction Phase	Traffic Control			3%	\$	22,740
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	30,320
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%	-	227,401
	Illumination					11%	\$	85,357
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\sqrt{}$	Water	Minor Adjustments				6%		45,480
$\sqrt{}$	Sewer	Minor Adjustments				4%		30,320
√,	Establish Turf / Erosion Control					3%		22,740
	Basic Landscaping					3%		22,740
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other: \$0					_	-	
	Allowance Subtotal:							509,839
Paving and Allowance Subtotal:								1,267,844
		Constru	action Conti			15%	-	190,177
			Construc	ction C	ost 7	ΓΟTAL:	\$	1,459,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,459,000
Engineering/Survey/Testing:		20%	\$ 291,800
Mobilization		5%	\$ 72,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 145,900
	\$ 1,970,000		

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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. A-21, D-3

Name: Timberland Blvd. (3) This project consists of the construction of a new

Limits: Caylor Rd. To Park Vista Blvd. four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial

Length (If): 1,515 Service Area(s): A, D

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Uni	it Price		Item Cost
109	Unclassified Street Excavation	6,902	су	\$	10.50	\$	72,468
209	6" Lime Stabilization (with Lime @ 32#/sy)	10,437	sy	\$	3.00	\$	31,310
309	11" Concrete Pavement	9,763	sy	\$	44.00	\$	429,587
409	6" Curb & Gutter	6,060	lf	\$	6.50	\$	39,390
509	4" Topsoil	7,238	sy	\$	5.00	\$	36,192
609	4' Concrete Sidewalk	12,120	sf	\$	5.00	\$	60,600
701	Turn Lanes and Median Openings	1,095	sy	\$	44.00	\$	48,190
	_					_	-46-

Paving Construction Cost Subtotal: \$ 717,735

Major Construction Component Allow	vances:		
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 21,532
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 28,709
√ Roadway Drainage	Standard Internal System	30%	\$ 215,321
√ Illumination		11%	\$ 80,822
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 43,064
√ Sewer	Minor Adjustments	4%	\$ 28,709
√ Establish Turf / Erosion Control		3%	\$ 21,532
√ Basic Landscaping		3%	\$ 21,532
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	ance Subtotal:	\$ 461,222
	Paving and Allowa		1,178,958
	Construction Contingency:	15%	\$ 176,844
	Construction C	ost TOTAL:	\$ 1,356,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,356,000
Engineering/Survey/Testing:		20%	\$ 271,200
Mobilization		5%	\$ 67,800
Previous City contribution			\$ -
Other	CFA# 2005072		\$ (395,516)
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 271,200
	Impact Fee Projec	t Cost TOTAL:	\$ 1,571,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Informat	tion:	Description:	Project No.	D-4
Name:	Timberland Blvd. (4)		This project consists of the	e widening of
Limits:	Park Vista Blvd. to 390' E of Harvest O	aks Dr.	a two-lane undivided conc	rete facility
Impact Fee Class:	MA4D-B (1/2)		into a four-lane divided ma	jor arterial.
Ultimate Class:	Major Arterial		This only included the sou	thern lanes
Length (If):	2,745		which is why the project is	
Service Area(s):	D		Service Area A.	

Roa	dway Construction Cost Proj	ection					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
111	Unclassified Street Excavation		6,405	су	\$	10.50	\$ 67,253
211	6" Lime Stabilization (with Lime @ 32	2#/sy)	9,455	sy	\$	3.00	\$ 28,365
311	11" Concrete Pavement		8,845	sy	\$	44.00	\$ 389,180
411	6" Curb & Gutter		8,235	lf	\$	6.50	\$ 53,528
511	4" Topsoil		9,913	sy	\$	5.00	\$ 49,563
611	4' Concrete Sidewalk		10,980	sf	\$	5.00	\$ 54,900
701	Turn Lanes and Median Openings		1,984	sy	\$	44.00	\$ 87,314
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 730,101
Majo	or Construction Component Allowar	nces:					
	Item Description	Notes			All	owance	Item Cost
V	Prep ROW		<u> </u>	•		3%	\$ 21,903
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 21 903

Item Description	Notes	Allowance		Item Cost			
 Prep ROW		3%	\$	21,903			
 Traffic Control	Construction Phase Traffic Control	3%	\$	21,903			
 Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	29,204			
 Roadway Drainage	Standard Internal System	30%	\$	219,030			
 Illumination		11%	\$	82,215			
Special Drainage Structures	None Anticipated	\$ -	\$	-			
 Water	Minor Adjustments	6%	\$	43,806			
 Sewer	Minor Adjustments	4%	\$	29,204			
 Establish Turf / Erosion Control		3%	\$	21,903			
 Basic Landscaping		3%	\$	21,903			
 Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000			
Other:		\$0	\$	-			
	Allowa	ince Subtotal:	\$	641,072			
Paving and Allowance Subtotal:							
	Construction Contingency:	15%	\$	205,676			
	Construction C	ost TOTAL:	\$	1,577,000			

Impact Fee Project Cost Sumi	nary					
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	1,577,000		
Engineering/Survey/Testing:		20%	\$	315,400		
Mobilization		5%	\$	78,850		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	157,700		
	Impact Fee Project Cost TOTAL:					

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated:

Unit Price

10.50

10/2/2012

**Item Cost** 

25,591

Project Information: Description: Project No. A-22, D-5

Name: Timberland Blvd. (5) This project consists of the construction of a new

Quantity

2,437

Unit

су

Limits: 390' E of Harvest Oaks Dr. to E. City L four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial

109 Unclassified Street Excavation

Length (If): 535 Service Area(s): A, D

No. Item Description

2,107 by						20,001	
Lime Stabilization (with Lime @ 32#/sy) 3,686 sy				3.00	\$	11,057	
3,448 sy			\$	44.00	\$	151,702	
	2,140	lf	\$	6.50	\$	13,910	
	2,556	sy	\$	5.00	\$	12,781	
	4,280	sf	\$	5.00	\$	21,400	
	387	sy	\$	44.00	\$	17,017	
Pav	ving Const	ruction (	Cost S	Subtotal:	\$	253,458	
:							
es			Allo	owance		Item Cost	
						7,604	
e Anticipated						-	
ment Markings w	ith Bike Lanes	i				10,138	
dard Internal Syst	tem					76,037	
				11%	\$	28,541	
e Anticipated			\$	-	\$	-	
r Adjustments						15,207	
r Adjustments						10,138	
						7,604	
						7,604	
e Anticipated						-	
				_	-		
		Allowa	nce S	Subtotal:	\$	162,874	
Paving and Allowance Subtotal:							
Construc						62,450	
	Constru	ction C	ost 1	TOTAL:	\$	479,000	
	Pares  Anticipated ment Markings widerd Internal Sys Anticipated r Adjustments r Adjustments r Adjustments	3,448 2,140 2,556 4,280 387 Paving Construction Conti	3,686 sy 3,448 sy 2,140 lf 2,556 sy 4,280 sf 387 sy  Paving Construction Cess  Anticipated ment Markings with Bike Lanes dard Internal System  Anticipated r Adjustments r Adjustments r Adjustments Paving and Allowa Construction Contingency:	3,686 sy \$ 3,448 sy \$ 2,140 If \$ 2,556 sy \$ 4,280 sf \$ 387 sy \$  Paving Construction Cost \$  Es Allowance Stard Internal System  Anticipated and Allowance Stard Internal System  Anticipated and Allowance Stard Internal System  Paving and Allowance Stard Internal System  Allowance Stard Internal System	3,686   sy   \$ 3.00     3,448   sy   \$ 44.00     2,140   If   \$ 6.50     2,556   sy   \$ 5.00     4,280   sf   \$ 5.00     387   sy   \$ 44.00     Paving Construction Cost Subtotal:	3,686   Sy   \$ 3.00   \$ 3,448   Sy   \$ 44.00   \$ 2,140   If   \$ 6.50   \$ 2,556   Sy   \$ 5.00   \$ 4,280   Sf   \$ 5.00   \$ 387   Sy   \$ 44.00   \$	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 479,000
Engineering/Survey/Testing:		20%	\$ 95,800
Mobilization		5%	\$ 23,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 95,800
	\$ 695,000		

**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.

Service Area(s):

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

D

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: D-6 Project No. Name: Keller Hicks Rd. (1) This project consists of the Limits: Riverside Dr. to 600' W of Ridgeview Cir. reconstruction of an existing two-lane Impact Fee Class: M4U-B undivided asphalt facility into a four-**Ultimate Class:** Minor Arterial lane undivided minor arterial. Length (If): 5,420

No.	No. Item Description Quantity Unit Unit Price							Item Cost
107	Unclassified Street Excavation	18,067 cy			\$	10.50	\$	189,700
207	6" Lime Stabilization (with Lime @ 32	#/sy)	35,531	sy	\$	3.00	\$	106,593
307	9" Concrete Pavement		34,327	sy	\$	36.00	\$	1,235,760
407	6" Curb & Gutter		10,840	lf	\$	6.50	\$	70,460
507	4" Topsoil		7,829	sy	\$	5.00	\$	39,144
607	4' Concrete Sidewalk		43,360	sf	\$	5.00	\$	216,800
701	Turn Lanes and Median Openings		0					
		Pa	ving Consti	ruction (	Cost S	Subtotal:	\$	1,858,458
Maio	or Construction Component Allowar	2000:	_	_	_	_		
Iviajo	Item Description	Notes			Alla	owance		Item Cost
	Prep ROW					3%	\$	55,754
V	Traffic Control	Construction Phase	Traffic Control			3%		55,754
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		74,338
	Roadway Drainage	Standard Internal Sys				30%	\$	557,537
	Illumination	,				11%		209,276
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	111,507
$\checkmark$	Sewer	Minor Adjustments				4%		74,338
$\checkmark$	Establish Turf / Erosion Control	·				3%	\$	55,754
$\checkmark$	Basic Landscaping					3%	\$	55,754
$\checkmark$	Intersections (Signal, Roundabout, etc.)	Assume Improvemer	nt per Half Mile		:	\$150,000	\$	300,000
	Other:	\$0				\$	-	
Allowance Subtotal:							\$	1,550,012
Paving and Allowance Subtotal:								3,408,470
Construction Contingency: 15%						*	511,271	
			Construc	ction C	ost 7	TOTAL:	\$	3,920,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,920,000
Engineering/Survey/Testing:		20%	\$ 784,000
Mobilization		5%	\$ 196,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 392,000
	\$ 5,292,000		

**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.

# City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. D-7
Name:	Keller Hicks Rd. (2)		This completed project consisted of the
Limits:	600' W. of Ridgeview Cir. to Alta Vista Rd.		construction of a four-lane undivided
Impact Fee Class:	M4U-B		minor arterial. The City contributed
Ultimate Class:	Minor Arterial		\$1,071,577.
Length (If):	2,330		* /- /-
Service Area(s):	D		

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 1,071,577
	Impact Fee Project C	ost TOTAL:	\$ 1,071,577

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Limits:
Impact Fee Class:
Ultimate Class:

Neller Hicks Rd. (3)

Keller Hicks Rd. (3)

Alta Vista Rd. to Park Vista Blvd.

M4U-B

Minor Arterial

Description:
Project No.

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Length (If): 2,735 Service Area(s): D

_	Item Description	,	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation		9,117	су	\$	10.50	\$ 95,725
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	17,929	sy	\$	3.00	\$ 53,788
307	9" Concrete Pavement		17,322	sy	\$	36.00	\$ 623,580
407	6" Curb & Gutter		5,470	lf	\$	6.50	\$ 35,555
507	4" Topsoil		3,951	sy	\$	5.00	\$ 19,753
607	4' Concrete Sidewalk		21,880	sf	\$	5.00	\$ 109,400
701	Turn Lanes and Median Openings		0				
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 937,801
Majo	or Construction Component Allow	ances:					_
	Item Description	Notes			Allo	owance	Item Cost
1	Prep ROW					3%	\$ 28,134
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 28,134
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$ 37,512
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 281,340
	Illumination					11%	\$ 105,603
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 56,268
	Sewer	Minor Adjustments				4%	\$ 37,512
	Establish Turf / Erosion Control					3%	\$ 28,134
	Basic Landscaping					3%	\$ 28,134
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile		;	\$150,000	\$ 150,000
	Other:					\$0	\$ -
	Allowance Subtotal:						\$ 780,772
	Paving and Allowance Subtotal:						\$ 1,718,573
		Constru	uction Conti			15%	257,786
			Constru	ction C	ost 7	OTAL:	\$ 1,977,000

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	1,977,000					
Engineering/Survey/Testing:		20%	\$	395,400					
Mobilization		5%	\$	98,850					
Previous City contribution			\$	-					
Other	Developer Contributions		\$	(1,365,247)					
ROW/Easement Acquisition:	Existing Alignment	10%	\$	197,700					
	\$	1,304,000							

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Keller Hicks Rd. (4)

Limits:

Park Vista Blvd. to Katy Rd.

Impact Fee Class:

Ultimate Class:

Minor Arterial

Description:

Project No.

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Length (If): 5,290 Service Area(s): D

	Item Description		Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation		17,633	су	\$	10.50	\$	185,150
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	34,679	sy	\$	3.00	\$	104,037
307	9" Concrete Pavement		33,503	sy	\$	36.00	\$	1,206,120
407	6" Curb & Gutter		10,580	lf	\$	6.50	\$	68,770
507	4" Topsoil		7,641	sy	\$	5.00	\$	38,206
607	4' Concrete Sidewalk		42,320	sf	\$	5.00	\$	211,600
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,813,882
Maio	or Construction Component Allow	ances:	_	_	-	_		
mesje	Item Description	Notes			Allo	owance		Item Cost
	Prep ROW					3%	\$	54,416
	Traffic Control	Construction Phase	Traffic Control			3%	\$	54,416
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	72,555
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	544,165
	Illumination					11%	\$	204,256
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	108,833
	Sewer	Minor Adjustments				4%	\$	72,555
	Establish Turf / Erosion Control					3%	\$	54,416
	Basic Landscaping					3%	\$	54,416
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	300,000
	Other:					\$0	\$ <b>\$</b>	-
	Allowance Subtotal:							1,520,030
			Paving an	d Allowa	nce S	Subtotal:	\$	3,333,913
	Construction Contingency: 15%						\$	500,087
			Construc	ction C	ost T	OTAL:	\$	3,834,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,834,000
Engineering/Survey/Testing:		20%	\$ 766,800
Mobilization		5%	\$ 191,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 383,400
	\$ 5,176,000		

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Informa	tion:	Description: Project No. D-10						
Name:	Golden Triangle Blvd. (3)	This project cons	sists of the					
Limits:	IH-35W NBFR to Katy Rd.	construction of two additional through						
Impact Fee Class:	P6D (1/3)	lanes within the existing median. The City						
Ultimate Class:	Principal Arterial		72,315 to the widening	•				
Length (If):	18,680	lane section that is currently under construction.						
Service Area(s):	D	in in its section that	ie camenay amaon c					

Roa	dway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
114	Unclassified Street Excavation		58,116	су	\$	10.50	\$	610,213
214	6" Lime Stabilization (with Lime @ 3	32#/sy)	56,040	sy	\$	3.00	\$	168,120
314	11" Concrete Pavement		51,889	sy	\$	44.00	\$	2,283,111
414	6" Curb & Gutter		37,360	lf	\$	6.50	\$	242,840
514	4" Topsoil		58,116	sy	\$	5.00	\$	290,578
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		13,504	sy	\$	44.00	\$	594,180
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	4,189,042
Majo	or Construction Component Allow							
	Item Description	Notes			Alle	owance		Item Cost
√,	Prep ROW					3%		125,671
√,	Traffic Control	Construction Phase	Traffic Control			3%		125,671
√	Pavement Markings/Markers					3%		125,671
	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					3%		125,671
√	Basic Landscaping					3%		125,671
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0	\$ <b>\$</b>	-
	Allowance Subtotal:							628,356
							_	
Paving and Allowance Subtotal:								4,817,398
Construction Contingency: 15%							722,610	
	Construction Cost TOTAL:							5,541,000

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	5,541,000					
Engineering/Survey/Testing:		20%	\$	1,108,200					
Mobilization		5%	\$	277,050					
Previous City contribution	Four-Lane Section that is currently under const	ruction	\$	6,572,315					
Other	CFA# 2005128		\$	(101,258)					
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-					
	Impact Fee Project C	ost TOTAL:	\$	13,397,000					

**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.

Service Area(s):

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

D

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **D-11** Name: Kroger Dr. This project consists of the widening of a two-lane Limits: Park Vista Blvd. to US 377 undivided concrete facility into a four-lane divided Impact Fee Class: MA4D-B (1/2) major arterial. **Ultimate Class:** Major Arterial Length (If): 1,650

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
111	Unclassified Street Excavation	3,850	су	\$	10.50	\$ 40,425
211	6" Lime Stabilization (with Lime @ 32#/sy)	5,683	sy	\$	3.00	\$ 17,050
311	11" Concrete Pavement	5,317	sy	\$	44.00	\$ 233,933
411	6" Curb & Gutter	4,950	lf	\$	6.50	\$ 32,175
511	4" Topsoil	5,958	sy	\$	5.00	\$ 29,792
611	4' Concrete Sidewalk	6,600	sf	\$	5.00	\$ 33,000
701	Turn Lanes and Median Openings	1,193	sy	\$	44.00	\$ 52,484

<b>Paving Construction Cost Subtotal:</b>	\$	438,859
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Majo	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	13,166				
	Traffic Control	Construction Phase Traffic Control	3%	\$	13,166				
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	17,554				
	Roadway Drainage	Standard Internal System	30%	\$	131,658				
	Illumination		11%	\$	49,419				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
	Water	Minor Adjustments	6%	\$	26,332				
	Sewer	Minor Adjustments	4%	\$	17,554				
	Establish Turf / Erosion Control		3%	\$	13,166				
	Basic Landscaping		3%	\$	13,166				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:	Railroad Crossing	\$250,000	\$	250,000				
		Allowa	nce Subtotal:	\$	545,180				
	Paving and Allowance Subtotal:								
	Construction Contingency: 15%								
		Construction C	ost TOTAL:	\$	1,095,000				

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	1,095,000					
Engineering/Survey/Testing:		20%	\$	219,000					
Mobilization		5%	\$	54,750					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	109,500					
	\$	1,478,000							

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. D-12

Name: N. Tarrant Pkwy. (2) This project consists of the

Limits: IH-35W NBFR to US 377 construction of two additional through Impact Fee Class: P6D (1/3) lanes within the existing median.

Ultimate Class: Principal Arterial

Length (If): 18,350 Service Area(s): D

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
114	Unclassified Street Excavation	57,089	су	\$	10.50	\$ 599,433
214	6" Lime Stabilization (with Lime @ 32#/sy)	55,050	sy	\$	3.00	\$ 165,150
314	11" Concrete Pavement	50,972	sy	\$	44.00	\$ 2,242,778
414	6" Curb & Gutter	36,700	lf	\$	6.50	\$ 238,550
514	4" Topsoil	57,089	sy	\$	5.00	\$ 285,444
614	4' Concrete Sidewalk	0	sf	\$	5.00	\$ -
701	Turn Lanes and Median Openings	13,266	sy	\$	44.00	\$ 583,683

Paving Construction Cost Subtotal: \$ 4,115,038

Maio	Major Construction Component Allowances:										
	Item Description	Notes	Allowance		Item Cost						
	Prep ROW		3%	\$	123,451						
	Traffic Control	Construction Phase Traffic Control	3%	\$	123,451						
	Pavement Markings/Markers		3%	\$	123,451						
	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		3%	\$	123,451						
	Basic Landscaping		3%	\$	123,451						
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-						
	Other:		\$0	\$	-						
		Allowa	ance Subtotal:	\$	617,256						
	Paving and Allowance Subtotal:										
I	Construction Contingency: 15%										
		Construction C	ost TOTAL:	\$	5,443,000						

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	5,443,000					
Engineering/Survey/Testing:		20%	\$	1,088,600					
Mobilization		5%	\$	272,150					
Previous City contribution			\$	-					
Other	Developer Funds, CFA# 2003112		\$	(142,546)					
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-					
	\$	6,661,000							

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Summerfields Blvd.
Limits:

Description:
Project No.

D-13

This project consists of the widening of a two-lane undivided concrete facility into a four-lane

undivided minor arterial.

3,720

Impact Fee Class: M4U-B (1/2)
Ultimate Class: Minor Arterial

4' Concrete Sidewalk

Turn Lanes and Median Openings

Length (If): 930 Service Area(s): D

605

701

**Roadway Construction Cost Projection** No. Item Description Quantity Unit **Unit Price Item Cost** 105 Unclassified Street Excavation 1,550 су \$ 10.50 16,275 205 6" Lime Stabilization (with Lime @ 32#/sy) 3,048 \$ 3.00 \$ 9,145 sy 305 9" Concrete Pavement 2.945 \$ 36.00 \$ 106.020 sy 6" Curb & Gutter \$ \$ 405 930 lf 6.50 6,045 505 4" Topsoil \$ 3,358 672 \$ 5.00 sy

Paving Construction Cost Subtotal: \$ 159.443

\$

5.00

18,600

\$

sf

	\$	159,443					
Maio	or Construction Component Allow						
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	4,783		
	Traffic Control	Construction Phase Traffic Control	3%	\$	4,783		
	Pavement Markings/Markers		2%	\$	3,423		
	Roadway Drainage	Standard Internal System	30%	\$	47,833		
	Illumination		11%	\$	17,954		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	9,567		
	Sewer	Minor Adjustments	4%	\$	6,378		
	Establish Turf / Erosion Control		3%	\$	4,783		
	Basic Landscaping		3%	\$	4,783		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
	Other:		\$0	\$	-		
		Allowa	ance Subtotal:	\$	104,288		
	Paving and Allowance Subtotal:						
	Construction Contingency: 15%						
		Construction C	ost TOTAL:	\$	304,000		

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	304,000					
Engineering/Survey/Testing:		20%	\$	60,800					
Mobilization		5%	\$	15,200					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	30,400					
	\$	410,000							

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Informat	ion:	Description:	Project No. D-14		
Name:	Old Denton Rd. (2)		This project consists of the		
Limits:	SH 170 EB to 190' N of Hidden Valley	70 EB to 190' N of Hidden Valley Dr. reconstruction of an			
Impact Fee Class:	MA4D-B		undivided asphalt facility into a four-		
Ultimate Class:	Major Arterial		lane divided major arterial.		

Length (If): 965 Service Area(s): D

_	Item Description	,	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		4,396	су	\$	10.50	\$	46,159
209	9 6" Lime Stabilization (with Lime @ 32#/sy) 6,648 sy				\$	3.00	\$	19,943
309	11" Concrete Pavement		6,219	sy	\$	44.00	\$	273,631
409	6" Curb & Gutter		3,860	lf	\$	6.50	\$	25,090
509	4" Topsoil		4,611	sy	\$	5.00	\$	23,053
609	4' Concrete Sidewalk		7,720	sf	\$	5.00	\$	38,600
701	Turn Lanes and Median Openings		698	sy	\$	44.00	\$	30,695
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	457,171
Majo	or Construction Component Allowa	nces:						
	Item Description	Notes			Alle	owance	П	Item Cost
	Prep ROW					3%	\$	13,715
	Traffic Control	Construction Phase	Traffic Control			3%	\$	13,715
$\checkmark$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	18,287
$\checkmark$	Roadway Drainage	Standard Internal Sys	stem			30%	\$	137,151
$\checkmark$	Illumination					11%	\$	51,481
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\checkmark$	Water	Minor Adjustments				6%	\$	27,430
$\checkmark$	Sewer	Minor Adjustments				4%		18,287
$\checkmark$	Establish Turf / Erosion Control					3%	\$	13,715
$\checkmark$	Basic Landscaping					3%	\$	13,715
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
	Allowance Subtotal:							307,497
Paving and Allowance Subtotal:						Subtotal:	\$	764,668
Construction Contingency: 15%							\$	114,700
Construction Cost TOTAL:					\$	880,000		

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	880,000					
Engineering/Survey/Testing:		20%	\$	176,000					
Mobilization		5%	\$	44,000					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	88,000					
	\$	1,188,000							

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	D-15		
Name:	Old Denton Rd. (3)		This project consists of the widening of a two-lane undivided concrete facility in			
Limits:	190' N of Hidden Valley Dr. to 135' S of	San Fernando Dr.				
Impact Fee Class:	MA4D-B (1/2)					
Ultimate Class:	Major Arterial		a four-lane divide	d maior		
Length (If):	895		arterial.			
Service Area(s):	D					

	dway Construction Cost Pro	ection					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
111	Unclassified Street Excavation		2,088	су	\$	10.50	\$ 21,928
211	6" Lime Stabilization (with Lime @ 3	32#/sy)	3,083	sy	\$	3.00	\$ 9,248
311	11" Concrete Pavement		2,884	sy	\$	44.00	\$ 126,891
411	6" Curb & Gutter		2,685	lf	\$	6.50	\$ 17,453
511	4" Topsoil		3,232	sy	\$	5.00	\$ 16,160
611	4' Concrete Sidewalk		3,580	sf	\$	5.00	\$ 17,900
701	Turn Lanes and Median Openings		647	sy	\$	44.00	\$ 28,468
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 238,048
Majo	or Construction Component Allow						
	Item Description	Notes			All	owance	Item Cost
<b>√</b>	Prep ROW					3%	\$ 7,141
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$ 7,141
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 9,522
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 71,414
	Illumination					11%	\$ 26,806
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 14,283
$\checkmark$	Sewer	Minor Adjustments				4%	\$ 9,522
$\sqrt{}$	Establish Turf / Erosion Control					3%	\$ 7,141
	Basic Landscaping					3%	\$ 7,141
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	\$ -
				Allowa	ınce 🤄	Subtotal:	\$ 160,113
			Paving and			Subtotal:	\$ 398,160
		Constru	uction Conti	ngency:		15%	\$ 59,724
			Construc	ction C	ost <sup>-</sup>	TOTAL:	\$ 458,000

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	458,000					
Engineering/Survey/Testing:		20%	\$	91,600					
Mobilization		5%	\$	22,900					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	45,800					
	\$	618,000							

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. 10/2/2012 updated:

**Project Information:** Description: **D-16** Project No. Name: Old Denton Rd. (4) This project consists of the Limits: 135' S of San Fernando Dr. to 325' N of Sawtimber Trl. reconstruction of an existing Impact Fee Class: MA4D-B two-lane undivided asphalt **Ultimate Class:** Major Arterial facility into a four-lane divided Length (If): 870 major arterial. Service Area(s): D

	dway Construction Cost Pro	Jection					
No.	Item Description		Quantity	Unit		it Price	Item Cost
109	Unclassified Street Excavation 3,963 cy			\$	10.50	\$ 41,615	
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	5,993	sy	\$	3.00	\$ 17,980
309	11" Concrete Pavement		5,607	sy	\$	44.00	\$ 246,693
409	6" Curb & Gutter		3,480	lf	\$	6.50	\$ 22,620
509	4" Topsoil		4,157	sy	\$	5.00	\$ 20,783
609	4' Concrete Sidewalk		6,960	sf	\$	5.00	\$ 34,800
701	Turn Lanes and Median Openings		629	sy	\$	44.00	\$ 27,673
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$ 412,165
Majo	or Construction Component Allowa						
	Item Description	Notes			Alle	owance	Item Cost
<b>V</b>	Prep ROW					3%	\$ 12,365
	Traffic Control	Construction Phase	Traffic Control			3%	12,365
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 16,487
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 123,649
	Illumination					11%	\$ 46,413
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	24,730
	Sewer	Minor Adjustments				4%	16,487
	Establish Turf / Erosion Control					3%	\$ 12,365
	Basic Landscaping					3%	\$ 12,365
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:	\$0				\$ -	
				Allowa	nce S	Subtotal:	\$ 277,225
			Paving an	d Allowa	nce S	Subtotal:	\$ 689,390
		Constru	uction Conti	ngency:		15%	\$ 103,409
			Construc	ction C	ost 7	TOTAL:	\$ 793,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	793,000			
Engineering/Survey/Testing:		20%	\$	158,600			
Mobilization		5%	\$	39,650			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	79,300			
	\$	1,071,000					

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	D-17				
Name:	N. Riverside Dr. (1)	This project consists of the widening of a two-lane						
Limits:	Timberland Blvd. to Keller Hicks Rd.	undivided concrete facility into a four-lane divided						
Impact Fee Class:	MA4D-B (1/2)	major arterial.						
Ultimate Class:	Major Arterial	•						
Length (If):	1,065							
Service Area(s):	D							

	Item Description	•	Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		2,485	су	\$	10.50	\$	26,093
211	6" Lime Stabilization (with Lime @ 32#/sy) 3,668 sy			\$	3.00	\$	11,005	
311	11" Concrete Pavement		3,432	sy	\$	44.00	\$	150,993
411	6" Curb & Gutter		3,195	lf	\$	6.50	\$	20,768
511	4" Topsoil		3,846	sy	\$	5.00	\$	19,229
611	4' Concrete Sidewalk		4,260	sf	\$	5.00	\$	21,300
701	Turn Lanes and Median Openings		770	sy	\$	44.00	\$	33,876
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	283,263
Maio	or Construction Component Allowa	inces:						
	Item Description	Notes			Alle	owance	П	Item Cost
	Prep ROW					3%	\$	8,498
	Traffic Control	Construction Phase	Traffic Control			3%	\$	8,498
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	11,331
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	84,979
$\checkmark$	Illumination					11%	\$	31,898
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\checkmark$	Water	Minor Adjustments				6%	\$	16,996
$\checkmark$	Sewer	Minor Adjustments				4%	\$	11,331
$\checkmark$	Establish Turf / Erosion Control					3%	\$	8,498
	Basic Landscaping					3%	\$	8,498
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
					\$0	\$	-	
				Allowa	nce S	Subtotal:	\$	190,525
			Paving an	d Allowa	nce S	Subtotal:	\$	473,788
		Constru	uction Conti	ngency:		15%	\$	71,068
			Constru	ction C	ost 7	ΓΟTAL:	\$	545,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	545,000			
Engineering/Survey/Testing:		20%	\$	109,000			
Mobilization		5%	\$	27,250			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	54,500			
	\$	736,000					

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. D-18	
Name:	N. Riverside Dr. (2)		This project consists of the widening	of
Limits:	Keller Hicks Rd. to 410' N of Golden	Triangle Blvd.	a two-lane undivided concrete facility	ł
Impact Fee Class:	MA4D-B (1/2)		into a four-lane divided major arterial.	
Ultimate Class:	Major Arterial		•	
Length (If):	2,025			
Service Area(s):	D			

No.	No.  Item Description   Quantity   Unit   Unit Price				Item Cost			
111	Unclassified Street Excavation		4,725	су	\$	10.50	\$	49,613
211	6" Lime Stabilization (with Lime @ 3	2#/sy)	6,975	sy	\$	3.00	\$	20,925
311	11" Concrete Pavement		6,525	sy	\$	44.00	\$	287,100
411	6" Curb & Gutter		6,075	lf	\$	6.50	\$	39,488
511	4" Topsoil		7,313	sy	\$	5.00	\$	36,563
611	4' Concrete Sidewalk		8,100	sf	\$	5.00	\$	40,500
701	Turn Lanes and Median Openings		1,464	sy	\$	44.00	\$	64,412
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	538,599
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
√.	Prep ROW					3%		16,158
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$	16,158
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	21,544
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%		161,580
	Illumination					11%	\$	60,650
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		32,316
	Sewer	Minor Adjustments				4%		21,544
	Establish Turf / Erosion Control					3%		16,158
	Basic Landscaping					3%	\$	16,158
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:	\$0			_	-		
Allowance Subtotal:							\$	362,266
Paving and Allowance Subtotal:							900,865	
Construction Contingency: 15%							135,130	
Construction Cost TOTAL:						\$	1,036,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,036,000			
Engineering/Survey/Testing:		20%	\$	207,200			
Mobilization		5%	\$	51,800			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	103,600			
	\$	1,399,000					

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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Limits:
Impact Fee Class:
Ultimate Class:

N. Riverside Dr. (3)

N. Riverside Dr. (3)

A10' N of Golden Triangle Blvd. to Golden Triangle Blvd.

MA4D-B

Major Arterial

Description:
Project No.

This project consists of the construction of a new four-lane divided major arterial.

Length (If): 410 Service Area(s): D

Roa	adway Construction Cost Projec	tion					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation		1,868	су	\$	10.50	\$ 19,612
209	6" Lime Stabilization (with Lime @ 32#/s	sy)	2,824	sy	\$	3.00	\$ 8,473
309	11" Concrete Pavement		2,642	sy	\$	44.00	\$ 116,258
409	6" Curb & Gutter		1,640	lf	\$	6.50	\$ 10,660
509	4" Topsoil		1,959	sy	\$	5.00	\$ 9,794
609	4' Concrete Sidewalk		3,280	sf	\$	5.00	\$ 16,400
701	Turn Lanes and Median Openings		296	sy	\$	44.00	\$ 13,041
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$ 194,239
Majo	or Construction Component Allowance	es:					
	Item Description No	otes			Alle	owance	Item Cost
	Prep ROW					3%	\$ 5,827
	Traffic Control No	one Anticipated				0%	\$ _

Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 5,827
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 7,770
√ Roadway Drainage	Standard Internal System	30%	\$ 58,272
$\sqrt{}$ Illumination		11%	\$ 21,873
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$ 250,000
√ Water	Minor Adjustments	6%	\$ 11,654
√ Sewer	Minor Adjustments	4%	\$ 7,770
√ Establish Turf / Erosion Control		3%	\$ 5,827
√ Basic Landscaping		3%	\$ 5,827
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	ince Subtotal:	\$ 374,819
	\$ 569,058		
	Construction Contingency:	15%	\$ 85,359
	Construction C	ost TOTAL:	\$ 655.000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	655,000			
Engineering/Survey/Testing:		20%	\$	131,000			
Mobilization		5%	\$	32,750			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	131,000			
	\$	950,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

N. Riverside Dr. (4)

Dalton St. to N. Tarrant Pkwy.

Impact Fee Class:

Ultimate Class:

Wayper Arterial

Description:

Project No.

D-20

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Length (If): 5,190 Service Area(s): D

No.	Item Description	•	Quantity	Unit	Uı	nit Price		Item Cost
109	Unclassified Street Excavation		23,643	су	\$	10.50	\$	248,255
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	35,753	sy	\$	3.00	\$	107,260
309	11" Concrete Pavement		33,447	sy	\$	44.00	\$	1,471,653
409	6" Curb & Gutter		20,760	lf	\$	6.50	\$	134,940
509	4" Topsoil		24,797	sy	\$	5.00	\$	123,983
609	4' Concrete Sidewalk		41,520	sf	\$	5.00	\$	207,600
701	Turn Lanes and Median Openings		3,752	sy	\$	44.00	\$	165,085
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	2,458,777
Maio	or Construction Component Allow	ances:						_
	Item Description	Notes			All	owance	П	Item Cost
	Prep ROW					3%	\$	73,763
	Traffic Control	Construction Phase	Traffic Control			3%	\$	73,763
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	98,351
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	737,633
	Illumination					11%	\$	276,876
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	147,527
	Sewer	Minor Adjustments				4%	\$	98,351
	Establish Turf / Erosion Control					3%	\$	73,763
	Basic Landscaping					3%	\$	73,763
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:				\$0	\$	-	
Allowance Subtotal:						\$	2,053,791	
	Paring and All Colored						\$	4,512,568
Paving and Allowance Subtotal:						\$	4,512,566 676,885	
Construction Contingency: 15%						φ	070,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 5,190,000
Engineering/Survey/Testing:		20%	\$ 1,038,000
Mobilization		5%	\$ 259,500
Previous City contribution			\$ -
Other	CFA# 2008009 & 2008043		\$ (280,800)
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 519,000
	Impact Fee Project	Cost TOTAL:	\$ 6,726,000

Construction Cost TOTAL: \$

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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.

5,190,000

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion: [	Description:	Project No. D-21
Name:	N. Riverside Dr. (5)		This project consists of the widening of
Limits:	N. Tarrant Pkwy. to Summerfields Blvd.		a two-lane undivided concrete facility
Impact Fee Class:	MA4D-B (1/2)		into a four-lane divided major arterial.
Ultimate Class:	Major Arterial		•
Length (If):	3,750		
Service Area(s):	D		

	Item Description	•	Quantity	Unit	Un	it Price	Item Cost
111	Unclassified Street Excavation		8,750	су	\$	10.50	\$ 91,875
211	6" Lime Stabilization (with Lime @ 3	2#/sy)	12,917	sy	\$	3.00	\$ 38,750
311	11" Concrete Pavement		12,083	sy	\$	44.00	\$ 531,667
411	6" Curb & Gutter		11,250	lf	\$	6.50	\$ 73,125
511	4" Topsoil		13,542	sy	\$	5.00	\$ 67,708
611	4' Concrete Sidewalk		15,000	sf	\$	5.00	\$ 75,000
701	Turn Lanes and Median Openings		2,711	sy	\$	44.00	\$ 119,281
		Pa	aving Consti	uction (	Cost S	Subtotal:	\$ 997,406
Majo	or Construction Component Allowa	ances:	_			_	
	Item Description	Notes			Allo	owance	Item Cost
	Prep ROW					3%	\$ 29,922
$\checkmark$	Traffic Control	Construction Phase	Traffic Control			3%	\$ 29,922
$\checkmark$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 39,896
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 299,222
	Illumination					11%	\$ 112,315
	Special Drainage Structures	None Anticipated			\$	-	\$ -
$\checkmark$	Water	Minor Adjustments				6%	\$ 59,844
	Sewer	Minor Adjustments				4%	\$ 39,896
	Establish Turf / Erosion Control					3%	\$ 29,922
	Basic Landscaping					3%	\$ 29,922
	Intersections (Signal, Roundabout, etc.)	Assume Improvemer	nt per Half Mile			\$150,000	\$ 150,000
	Other:					\$0	\$ -
Allowance Subtotal:					\$ 820,863		
	Paving and Allowance Subtotal:					\$ 1,818,269	
Construction Contingency: 15%					\$ 272,740		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,092,000			
Engineering/Survey/Testing:		20%	\$	418,400			
Mobilization		5%	\$	104,600			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	209,200			
	Impact Fee Project C	ost TOTAL:	\$	2,824,000			

Construction Cost TOTAL: \$

**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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2,092,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	D-22
Name:	N. Riverside Dr. (6)		This project cons	sists of the
Limits:	Summerfields Blvd. to 710' S of Princ	ess Victoria Ct.	widening of a two	o-lane
Impact Fee Class:	MA4D-B (1/2)		undivided concre	te facility into
Ultimate Class:	Major Arterial		a four-lane divide	ed maior
Length (If):	1,535		arterial.	
Service Area(s):	D			

	adway Construction Cost Pro	ojection					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
111	Unclassified Street Excavation		3,582	су	\$	10.50	\$ 37,608
211	6" Lime Stabilization (with Lime @ 3	32#/sy)	5,287	sy	\$	3.00	\$ 15,862
311	11" Concrete Pavement		4,946	sy	\$	44.00	\$ 217,629
411	6" Curb & Gutter		4,605	lf	\$	6.50	\$ 29,933
511	4" Topsoil		5,543	sy	\$	5.00	\$ 27,715
611	4' Concrete Sidewalk		6,140	sf	\$	5.00	\$ 30,700
701	Turn Lanes and Median Openings		1,110	sy	\$	44.00	\$ 48,826
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 408,272
Majo	or Construction Component Allow						
	Item Description	Notes			Alle	owance	Item Cost
√.	Prep ROW					3%	\$ 12,248
√.	Traffic Control	Construction Phase	Traffic Control			3%	\$ 12,248
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 16,331
√.	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 122,481
	Illumination					11%	\$ 45,974
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 24,496
	Sewer	Minor Adjustments				4%	\$ 16,331
	Establish Turf / Erosion Control					3%	\$ 12,248
	Basic Landscaping					3%	\$ 12,248
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	\$ -
			- <del></del>	Allowa	nce S	Subtotal:	\$ 274,606
			Paving an			Subtotal:	\$ 682,878
		Constru	uction Conti	-		15%	\$ 102,432
			Construc	ction C	ost <sup>-</sup>	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:	Existing Alignment	10%	\$	78,600			
	\$	1,061,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10/2/2012 updated:

**Item Cost** 

**Project Information:** Project No. A-27, D-23 Description:

Name: N. Beach St. (4) This project consists of the

Limits: SH 170 EBFR to 410' N of Saratoga Downs Way construction of a new six-lane divided

Quantity

Unit

Impact Fee Class: P6D-B principal arterial.

**Ultimate Class:** Principal Arterial

Length (If): 2,045 Service Area(s): A, D

No. Item Description

113	Unclassified Street Excavation		12,497	су	\$	10.50	\$	131,221
213	6" Lime Stabilization (with Lime @ 3	32#/sy)	19,087	sy	\$	3.00	\$	57,260
313	11" Concrete Pavement		18,178	sy	\$	44.00	\$	799,822
413	6" Curb & Gutter		8,180	lf	\$	6.50	\$	53,170
513	4" Topsoil		9,316	sy	\$	5.00	\$	46,581
613	4' Concrete Sidewalk		16,360	sf	\$	5.00	\$	81,800
701	Turn Lanes and Median Openings		1,478	sy	\$	44.00	\$	65,048
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,234,902
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		37,047
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	49,396
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	370,470
	Illumination					11%	\$	139,059
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	74,094
	Sewer	Minor Adjustments				4%	\$	49,396
	Establish Turf / Erosion Control					3%	\$	37,047
	Basic Landscaping					3%	\$	37,047
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0		-
	Allowance Subtotal:					\$	793,557	
	Paving and Allowance Subtotal:							2,028,458
		Constru	uction Conti			15%	-	304,269
			Constru	ction C	ost 7	ΓΟΤΑL:	\$	2,333,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,333,000			
Engineering/Survey/Testing:		20%	\$	466,600			
Mobilization		5%	\$	116,650			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	466,600			
	\$	3,383,000					

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.

**Project Information:** 

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

10/2/2012

Description: Project No. A-28, D-24

Name: N. Beach St. (5) This project consists of the

Limits: 410' N of Saratoga Downs to Timberland Blvd. construction of two additional through lanes within the existing median.

Impact Fee Class: P6D (1/3) **Ultimate Class:** Principal Arterial

Length (If): 3,715 Service Area(s): A, D

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
114	Unclassified Street Excavation	11,558	су	\$	10.50	\$	121,357
214	6" Lime Stabilization (with Lime @ 32#/sy)	11,145	sy	\$	3.00	\$	33,435
314	11" Concrete Pavement	10,319	sy	\$	44.00	\$	454,056
414	6" Curb & Gutter	7,430	lf	\$	6.50	\$	48,295
514	4" Topsoil	11,558	sy	\$	5.00	\$	57,789
614	4' Concrete Sidewalk	0	sf	\$	5.00	\$	_
701	Turn Lanes and Median Openings	2,686	sy	\$	44.00	\$	118,168
	D.	wing Const	atian (		Cla4 a4 a l .	-	022 000

Paving Construction Cost Subtotal: \$ 833,099

Majo	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	24,993				
	Traffic Control	Construction Phase Traffic Control	3%	\$	24,993				
	Pavement Markings/Markers		3%	\$	24,993				
	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		3%	\$	24,993				
	Basic Landscaping		3%	\$	24,993				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:		\$0	\$	-				
		Allowa	ince Subtotal:	\$	124,965				
	_	Paving and Allowa	nce Subtotal:	\$	958,064				
	Construction Contingency: 15% \$								
		Construction C	ost TOTAL:	\$	1,102,000				

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,102,000			
Engineering/Survey/Testing:		20%	\$	220,400			
Mobilization		5%	\$	55,100			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-			
	\$	1,378,000					

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.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. D-25
Name: N. Beach St. (6)			This project consists of the construction
Limits:	Timberland Blvd. to Keller Hicks Rd.		of two additional through lanes within
Impact Fee Class:	P6D (1/3)		the existing median. The City
Ultimate Class:	Principal Arterial		contributed \$5,269,239 to the widening
Length (If): 5,440			to a four-lane section that is currently
Service Area(s):	D		under construction.

Roa	adway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Ur	nit Price		Item Cost
114	Unclassified Street Excavation		16,924	су	\$	10.50	\$	177,707
214	6" Lime Stabilization (with Lime @ 3	2#/sy)	16,320	sy	\$	3.00	\$	48,960
314	11" Concrete Pavement		15,111	sy	\$	44.00	\$	664,889
414	6" Curb & Gutter		10,880	lf	\$	6.50	\$	70,720
514	4" Topsoil		16,924	sy	\$	5.00	\$	84,622
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		3,933	sy	\$	44.00	\$	173,037
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	1,219,935
Majo	or Construction Component Allowa							
	Item Description	Notes			All	lowance		Item Cost
√.	Prep ROW					3%	\$	36,598
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$	36,598
	Pavement Markings/Markers					3%	\$	36,598
	Roadway Drainage	None Anticipated				0%	\$	-
	Illumination	None Anticipated				0%	\$	-
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	None Anticipated				0%	\$	-
	Sewer	None Anticipated				0%	\$	-
$\sqrt{}$	Establish Turf / Erosion Control					3%	\$	36,598
	Basic Landscaping					3%		36,598
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	,	-
	Allowance Subtotal:						\$	182,990
			Paving an				\$	1,402,925
		Constru	uction Conti			15%	\$	210,439
			Constru	ction C	ost	TOTAL:	\$	1,614,000

Impact Fee Project Cost Sumr	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,614,000
Engineering/Survey/Testing:		20%	\$ 322,800
Mobilization		5%	\$ 80,700
Previous City contribution			\$ 5,269,239
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 7,287,000		

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.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	<b>D-26</b>
Name:	N. Beach St. (7)		This project consists of the co	onstruction
Limits:	Keller Hicks Rd. to Golden Triangle Blv	/d.	of two additional through lane	es within
Impact Fee Class:	P6D (1/3)		the existing median. The City	•
Ultimate Class:	Principal Arterial		contributed approximately \$6,	,400,000 to
Length (If): 3,940			the widening to a four-lane se	ction that
Service Area(s):	D		is currently under constructio	

Roa	adway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Ur	nit Price		Item Cost
114	Unclassified Street Excavation		12,258	су	\$	10.50	\$	128,707
214	6" Lime Stabilization (with Lime @ 3	2#/sy)	11,820	sy	\$	3.00	\$	35,460
314	11" Concrete Pavement		10,944	sy	\$	44.00	\$	481,556
414	6" Curb & Gutter		7,880	lf	\$	6.50	\$	51,220
514	4" Topsoil		12,258	sy	\$	5.00	\$	61,289
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		2,848	sy	\$	44.00	\$	125,325
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	883,556
Majo	or Construction Component Allowa							
	Item Description	Notes			All	lowance		Item Cost
√.	Prep ROW					3%	\$	26,507
√.	Traffic Control	Construction Phase	Traffic Control			3%	\$	26,507
	Pavement Markings/Markers					3%	\$	26,507
	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					3%	\$	26,507
	Basic Landscaping					3%		26,507
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	-	-
				Allowa	ınce	Subtotal:	\$	132,533
		_	Paving an				\$	1,016,089
		Constru	uction Conti			15%	\$	152,413
			Constru	ction C	ost	TOTAL:	\$	1,169,000

Impact Fee Project Cost Sumi	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,169,000
Engineering/Survey/Testing:		20%	\$ 233,800
Mobilization		5%	\$ 58,450
Previous City contribution			\$ 6,400,000
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 7,861,000		

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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. D-27

Name: N. Beach St. (8) This project consists of the

Limits: Golden Triangle Blvd. to Vista Meadows Dr. construction of two additional through lanes within the existing median.

Ultimate Class: Principal Arterial

Length (If): 3,925 Service Area(s): D

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
114	Unclassified Street Excavation	12,211	су	\$	10.50	\$ 128,217
214	6" Lime Stabilization (with Lime @ 32#/sy)	11,775	sy	\$	3.00	\$ 35,325
314	11" Concrete Pavement	10,903	sy	\$	44.00	\$ 479,722
414	6" Curb & Gutter	7,850	lf	\$	6.50	\$ 51,025
514	4" Topsoil	12,211	sy	\$	5.00	\$ 61,056
614	4' Concrete Sidewalk	0	sf	\$	5.00	\$ -
701	Turn Lanes and Median Openings	2,837	sy	\$	44.00	\$ 124,848
	Pa	aving Constr	uction (	Cost	Subtotal:	\$ 880,192

Maio	Major Construction Component Allowances:								
mean	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	26,406				
	Traffic Control	Construction Phase Traffic Control	3%	\$	26,406				
	Pavement Markings/Markers		3%	\$	26,406				
	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		3%	\$	26,406				
	Basic Landscaping		3%	\$	26,406				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:		\$0	\$	-				
		Allowa	ance Subtotal:	\$	132,029				
		Paving and Allowa		\$	1,012,221				
	Construction Contingency: 15%								
		Construction C	ost TOTAL:	\$	1,165,000				

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,165,000			
Engineering/Survey/Testing:		20%	\$	233,000			
Mobilization		5%	\$	58,250			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-			
	Impact Fee Project Cost TOTAL:						

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

N. Beach St. (9)

Limits:

Impact Fee Class:

P6D-B (2/3)

Description:

Project No.

D-28

This project consists of the widening of a two-lane undivided concrete facility into a six-lane divided principal arterial.

Ultimate Class: Principal Arterial

Length (If): 945 Service Area(s): D

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
118	Unclassified Street Excavation	4,358	су	\$	10.50	\$	45,754
218	6" Lime Stabilization (with Lime @ 32#/sy)	5,723	sy	\$	3.00	\$	17,168
318	11" Concrete Pavement	5,408	sy	\$	44.00	\$	237,930
418	6" Curb & Gutter	2,835	lf	\$	6.50	\$	18,428
518	4" Topsoil	3,728	sy	\$	5.00	\$	18,638
618	4' Concrete Sidewalk	3,780	sf	\$	5.00	\$	18,900
701	Turn Lanes and Median Openings	683	sy	\$	44.00	\$	30,059
				<u> </u>	3l. ( - ( - l.	Φ.	200 075

Paving Construction Cost Subtotal: \$ 386,875

Majo	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	11,606				
	Traffic Control	Construction Phase Traffic Control	3%	\$	11,606				
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	15,475				
	Roadway Drainage	Standard Internal System	30%	\$	116,063				
	Illumination		11%	\$	43,565				
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000				
	Water	Minor Adjustments	6%	\$	23,213				
$\checkmark$	Sewer	Minor Adjustments	4%	\$	15,475				
	Establish Turf / Erosion Control		3%	\$	11,606				
	Basic Landscaping		3%	\$	11,606				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:		\$0	\$	-				
		Allowa	ance Subtotal:	\$	510,215				
	Paving and Allowance Subtotal:								
	Construction Contingency: 15%								
		Construction C	ost TOTAL:	\$	1,032,000				

Impact Fee Project Cost Sun	nmary		
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:	Existing Alignment	10%	\$ 103,200
	\$ 1,393,000		

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Informat	tion:	Description:	Project No. D-29					
Name:	N. Beach St. (10)		This project consists of the					
Limits:	Alta Vista Rd. to Heritage Trace Pkwy.	<u>-</u>	reconstruction of an existing two-lane					
Impact Fee Class: P6D-B			undivided asphalt facility into a six-land					
Ultimate Class:	Principal Arterial		divided principal arterial.					
Length (If): 1,170								
Service Area(s):	D							

	Item Description	,	Quantity	Unit	Un	it Price	Item Cost
113	Unclassified Street Excavation		7,150	су	\$	10.50	\$ 75,075
213	6" Lime Stabilization (with Lime @ 3	32#/sy)	10,920	sy	\$	3.00	\$ 32,760
313	11" Concrete Pavement		10,400	sy	\$	44.00	\$ 457,600
413	6" Curb & Gutter		4,680	lf	\$	6.50	\$ 30,420
513	4" Topsoil		5,330	sy	\$	5.00	\$ 26,650
613	4' Concrete Sidewalk		9,360	sf	\$	5.00	\$ 46,800
701	Turn Lanes and Median Openings		846	sy	\$	44.00	\$ 37,216
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 706,521
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			Alle	owance	Item Cost
$\checkmark$	Prep ROW					3%	\$ 21,196
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 21,196
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$ 28,261
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 211,956
	Illumination					11%	\$ 79,559
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 42,391
	Sewer	Minor Adjustments				4%	\$ 28,261
	Establish Turf / Erosion Control					3%	\$ 21,196
	Basic Landscaping					3%	\$ 21,196
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other: \$0				\$ -		
	Allowance Subtotal:						\$ 475,211
			Paving an	d Allowa	nce S	Subtotal:	\$ 1,181,732
		Constru	uction Conti	ngency:		15%	\$ 177,260
			Constru	ction C	ost 7	ΓΟTAL:	\$ 1,359,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,359,000			
Engineering/Survey/Testing:		20%	\$	271,800			
Mobilization		5%	\$	67,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	135,900			
	Impact Fee Project C	ost TOTAL:	\$	1,835,000			

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** D-30 Description: Project No. Name: N. Beach St. (11) This project consists of the Limits: Heritage Trace Pkwy. to Heritage Glen Dr. reconstruction of an existing two-lane Impact Fee Class: P6D-B undivided asphalt facility into a six-lane **Ultimate Class:** Principal Arterial divided principal arterial. Length (If): 2,480 Service Area(s): D

	idway Construction Cost Pro	ojection					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
113	Unclassified Street Excavation		15,156	су	\$	10.50	\$ 159,133
213	B 6" Lime Stabilization (with Lime @ 32#/sy) 23,147 sy			\$	3.00	\$ 69,440	
313	11" Concrete Pavement		22,044	sy	\$	44.00	\$ 969,956
413	6" Curb & Gutter		9,920	lf	\$	6.50	\$ 64,480
513	4" Topsoil		11,298	sy	\$	5.00	\$ 56,489
613	4' Concrete Sidewalk		19,840	sf	\$	5.00	\$ 99,200
701	Turn Lanes and Median Openings		1,793	sy	\$	44.00	\$ 78,885
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 1,497,582
Majo	or Construction Component Allow	-					
	Item Description	Notes			All	owance	Item Cost
$\sqrt{}$	Prep ROW					3%	\$ 44,927
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$ 44,927
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 59,903
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 449,275
	Illumination					11%	\$ 168,639
	Special Drainage Structures	None Anticipated			\$	-	\$ -
$\sqrt{}$	Water	Minor Adjustments				6%	\$ 89,855
$\sqrt{}$	Sewer	Minor Adjustments				4%	\$ 59,903
√.	Establish Turf / Erosion Control					3%	\$ 44,927
	Basic Landscaping					3%	\$ 44,927
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other: \$0				\$ -		
				Allowa	ince :	Subtotal:	\$ 1,007,285
			Paving and				2,504,867
		Constru	uction Conti	-		15%	 375,730
			Construc	ction C	ost <sup>-</sup>	TOTAL:	\$ 2,881,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,881,000
Engineering/Survey/Testing:		20%	\$ 576,200
Mobilization		5%	\$ 144,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 288,100
	Impact Fee Project	ct Cost TOTAL:	\$ 3,889,000

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Informat	ion: Desc	cription:	Project No. D-31
Name:	N. Beach St. (12)		This project consists of the widening of
Limits:	Heritage Glen Dr. to 155' S of Springview I	Ln.	a two-lane undivided concrete facility
Impact Fee Class:	P6D-B (2/3)		into a six-lane divided principal arterial.
Ultimate Class:	Principal Arterial		
Longth /lf\.	2 445		

Quantity Unit Unit Price

Length (If): 3,415 Service Area(s): D

No. Item Description

118	Unclassified Street Excavation		15,747	су	\$	10.50	\$	165,343
218	6" Lime Stabilization (with Lime @ 3	32#/sy)	20,680	sy	\$	3.00	\$	62,039
318	11" Concrete Pavement		19,541	sy	\$	44.00	\$	859,821
418	6" Curb & Gutter		10,245	lf	\$	6.50	\$	66,593
518	4" Topsoil		13,470	sy	\$	5.00	\$	67,351
618	4' Concrete Sidewalk		13,660	sf	\$	5.00	\$	68,300
701	Turn Lanes and Median Openings		2,469	sy	\$	44.00	\$	108,625
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,398,073
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
√.	Prep ROW					3%		41,942
√.	Traffic Control	Construction Phase	Traffic Control			3%	\$	41,942
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	55,923
	Roadway Drainage	Standard Internal Sy	stem			30%		419,422
	Illumination					11%	\$	157,433
l .	Special Drainage Structures	None Anticipated			\$	-	\$	-
√.	Water	Minor Adjustments				6%		83,884
	Sewer	Minor Adjustments				4%		55,923
√,	Establish Turf / Erosion Control					3%	\$	41,942
√,	Basic Landscaping					3%	\$	41,942
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					\$0	\$	-
Allowance Subtotal:							\$	1,090,354
							L.	
Paving and Allowa <u>nce Subtotal:</u>								2,488,426
		Constru	uction Conti			15%		373,264
			Constru	ction C	ost 7	ΓΟΤAL:	\$	2,862,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,862,000
Engineering/Survey/Testing:		20%	\$ 572,400
Mobilization		5%	\$ 143,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 286,200
	Impact Fee Project	t Cost TOTAL:	\$ 3,864,000

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

D

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: **D-32** Project No. Name: N. Beach St. (13) This project consists of the Limits: 155' S of Springview Ln. to 380' S of Spring Mist Cv. construction of two additional Impact Fee Class: P6D (1/3) through lanes within the **Ultimate Class:** Principal Arterial existing median. Length (If): 765 Service Area(s):

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
114	Unclassified Street Excavation	2,380	су	\$	10.50	\$ 24,990
214	6" Lime Stabilization (with Lime @ 32#/sy)	2,295	sy	\$	3.00	\$ 6,885
314	11" Concrete Pavement	2,125	sy	\$	44.00	\$ 93,500
414	6" Curb & Gutter	1,530	lf	\$	6.50	\$ 9,945
514	4" Topsoil	2,380	sy	\$	5.00	\$ 11,900
614	4' Concrete Sidewalk	0	sf	\$	5.00	\$ -
701	Turn Lanes and Median Openings	553	sy	\$	44.00	\$ 24,333

Paving Construction Cost Subtotal: \$ 171,553

Majo	or Construction Component Allow	ances:				
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	5,147	
	Traffic Control	Construction Phase Traffic Control	3%	\$	5,147	
	Pavement Markings/Markers		3%	\$	5,147	
	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		3%	\$	5,147	
	Basic Landscaping		3%	\$	5,147	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:		\$0	\$	-	
		Allowa	nce Subtotal:	\$	25,733	
	Paving and Allowance Subtotal: \$					
	Construction Contingency: 15% \$					
		Construction C	ost TOTAL:	\$	227,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 227,000
Engineering/Survey/Testing:		20%	\$ 45,400
Mobilization		5%	\$ 11,350
Previous City contribution			\$ -
Other	CFA# 2003073		\$ (85,514)
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project	Cost TOTAL:	\$ 198,000

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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. D-33

Name: Park Vista Blvd. (2) This project consists of the construction of a new

Limits: Timberland Blvd. to Caylor Rd. four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial

Length (If): 955 Service Area(s): D

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	nit Price	Item Cost
109	Unclassified Street Excavation	4,351	су	\$	10.50	\$ 45,681
209	6" Lime Stabilization (with Lime @ 32#/sy)	6,579	sy	\$	3.00	\$ 19,737
309	11" Concrete Pavement	6,154	sy	\$	44.00	\$ 270,796
409	6" Curb & Gutter	3,820	lf	\$	6.50	\$ 24,830
509	4" Topsoil	4,563	sy	\$	5.00	\$ 22,814
609	4' Concrete Sidewalk	7,640	sf	\$	5.00	\$ 38,200
701	Turn Lanes and Median Openings	690	sy	\$	44.00	\$ 30,377
	Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 452,434

Major Construction Component Allow Item Description	Notes	Allowance		Item Cost
√ Prep ROW		3%	\$	13,573
Traffic Control	None Anticipated	0%		
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%		18,097
√ Roadway Drainage	Standard Internal System	30%		135,730
√ Illumination		11%		50,947
Special Drainage Structures	None Anticipated	\$ -	\$	-
√ Water	Minor Adjustments	6%	\$	27,146
√ Sewer	Minor Adjustments	4%		18,097
√ Establish Turf / Erosion Control	,	3%		13,573
√ Basic Landscaping		3%		13,573
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0		-
Other:	·	\$0		-
	Allo	wance Subtotal:	_	290,737
				·
	\$	743,171		
	Construction Contingen	owance Subtotal: cy: 15%		111,476
		Cost TOTAL:	\$	855,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	855,000				
Engineering/Survey/Testing:		20%	\$	171,000				
Mobilization		5%	\$	42,750				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	171,000				
	\$	1,240,000						

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated:

Quantity Unit Unit Price

**Item Cost** 

10/2/2012

Project Information: Description: Project No. D-34

Name: Park Vista Blvd. (3) This project consists of the

Name: Park Vista Blvd. (3) This project consists of the Limits: Keller Hicks Rd. to Golden Triangle Blvd. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial Length (If): 2,690

Service Area(s): D

No. Item Description

	item Beschiption		quantity	5	;			itom ooot
109	Unclassified Street Excavation		12,254	су	\$	10.50	\$	128,672
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	18,531	sy	\$	3.00	\$	55,593
309	11" Concrete Pavement		17,336	sy	\$	44.00	\$	762,764
409	6" Curb & Gutter		10,760	lf	\$	6.50	\$	69,940
509	4" Topsoil		12,852	sy	\$	5.00	\$	64,261
609	4' Concrete Sidewalk		21,520	sf	\$	5.00	\$	107,600
701	Turn Lanes and Median Openings		1,945	sy	\$	44.00	\$	85,564
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,274,395
Majo	or Construction Component Allowa							
L.,	Item Description	Notes			Alle	owance		Item Cost
1	Prep ROW					3%	\$	38,232
,	Traffic Control	None Anticipated				0%	\$	-
٧,	Pavement Markings/Markers	Pavement Markings		i		4%	\$	50,976
٧,	Roadway Drainage	Standard Internal Sy	stem			30%	\$	382,318
1	Illumination					11%	\$	143,506
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
√,	Water	Minor Adjustments				6%	\$	76,464
√,	Sewer	Minor Adjustments				4%	\$	50,976
1	Establish Turf / Erosion Control					3%	\$	38,232
1	Basic Landscaping					3%	\$	38,232
√	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					\$0	\$ <b>\$</b>	-
Allowance Subtotal:								968,936
			Paving an	d Allows	noo 9	Subtotali	\$	2 242 220
		Constru	eaving and uction Conti			15%	\$	<b>2,243,330</b> 336,500
		Constru						
Construction Cost TOTAL:						\$	2,580,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,580,000			
Engineering/Survey/Testing:		20%	\$	516,000			
Mobilization		5%	\$	129,000			
Previous City contribution			\$	-			
Other	CFA# 2005128		\$	(78,434)			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	516,000			
	\$	3,663,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10/2/2012 updated:

**Item Cost** 

**Project Information: D-35** Description: Project No. Name: Park Vista Blvd. (4) This project consists of the

Limits: Golden Triangle Blvd. to Ray White Rd./Wyndrook construction of a new four-lane divided

Quantity

Unit

Impact Fee Class: MA4D-B major arterial.

**Ultimate Class:** Major Arterial

Length (If): 2,685 Service Area(s): D

No. Item Description

			, , , ,				
109	Unclassified Street Excavation		12,232	су	\$	10.50	\$ 128,433
209	, , , , , , , , , , , , , , , , , , , ,			sy	\$	3.00	\$ 55,490
309	11" Concrete Pavement	17,303	sy	\$	44.00	\$ 761,347	
409	6" Curb & Gutter		10,740	lf	\$	6.50	\$ 69,810
509	4" Topsoil		12,828	sy	\$	5.00	\$ 64,142
609	4' Concrete Sidewalk		21,480	sf	\$	5.00	\$ 107,400
701	Turn Lanes and Median Openings		1,941	sy	\$	44.00	\$ 85,405
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 1,272,026
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			Al	lowance	Item Cost
	Prep ROW					3%	\$ 38,161
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 50,881
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 381,608
	Illumination					11%	\$ 143,239
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$ 250,000
	Water	Minor Adjustments				6%	\$ 76,322
	Sewer	Minor Adjustments				4%	\$ 50,881
	Establish Turf / Erosion Control					3%	\$ 38,161
	Basic Landscaping					3%	38,161
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$ 150,000
	Other:					\$0	\$ -
				Allowa	nce	Subtotal:	\$ 1,217,413
			Paving an				2,489,440
		Constru	uction Conti			15%	373,416
			Constru	ction C	ost	TOTAL:	\$ 2,863,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	2,863,000				
Engineering/Survey/Testing:		20%	\$	572,600				
Mobilization		5%	\$	143,150				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	572,600				
	\$	4,151,000						

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	F	Project No.	D-36			
Name:	Ray White Rd. (1)	This project consists of the						
Limits:	Wyndrook St. to 320' S of Pinellas Ave	э.	reconstruction of an existing two-la					
Impact Fee Class:	MA4D-B		undivided asphalt facility into a four-					
Ultimate Class:	Major Arterial		lane divided i	naior arteria	ıl.			
Length (If):	795			,				
Service Area(s):	n(s): D							

No.	No. Item Description Quantity Unit Unit					it Price		Item Cost
109	Unclassified Street Excavation		3,622	су	\$	10.50	\$	38,028
209	9 6" Lime Stabilization (with Lime @ 32#/sy) 5,477 sy			\$	3.00	\$	16,430	
309	11" Concrete Pavement		5,123	sy	\$	44.00	\$	225,427
409	6" Curb & Gutter		3,180	lf	\$	6.50	\$	20,670
509	4" Topsoil		3,798	sy	\$	5.00	\$	18,992
609	4' Concrete Sidewalk		6,360	sf	\$	5.00	\$	31,800
701	Turn Lanes and Median Openings		575	sy	\$	44.00	\$	25,288
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	376,633
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	11,299
$\checkmark$	Traffic Control	Construction Phase	Traffic Control			3%	\$	11,299
$\checkmark$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$	15,065
$\checkmark$	Roadway Drainage	Standard Internal Sy	stem			30%	\$	112,990
$\checkmark$	Illumination					11%	\$	42,412
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	22,598
	Sewer	Minor Adjustments				4%	\$	15,065
	Establish Turf / Erosion Control					3%	\$	11,299
	Basic Landscaping					3%	\$	11,299
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other: \$0					\$ <b>\$</b>	-	
Allowance Subtotal:								253,326
Paving and Allowance Subtotal:							\$	629,960
		Constru	uction Conti			15%	\$	94,494
			Constru	ction C	ost 7	ΓΟΤΑL:	\$	725,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	725,000				
Engineering/Survey/Testing:		20%	\$	145,000				
Mobilization		5%	\$	36,250				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	72,500				
	\$	979,000						

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: **D-37** Project No. Name: Ray White Rd. (2) This project consists of the Limits: 320' S of Pinellas Ave. to 230' N of Wall Price Keller Rd. reconstruction of an existing Impact Fee Class: MA4D-B two-lane undivided asphalt **Ultimate Class:** Major Arterial facility into a four-lane divided Length (If): 1,680 major arterial. Service Area(s): D, ETJ

	adway Construction Cost Pro	ojection							
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost	
109	Unclassified Street Excavation		7,653	су	\$	10.50	\$	80,360	
209	9 6" Lime Stabilization (with Lime @ 32#/sy) 11,573			sy	\$	3.00	\$	34,720	
309	11" Concrete Pavement		10,827	sy	\$	44.00	\$	476,373	
409	6" Curb & Gutter		6,720	lf	\$	6.50	\$	43,680	
509	4" Topsoil		8,027	sy	\$	5.00	\$	40,133	
609	4' Concrete Sidewalk		13,440	sf	\$	5.00	\$	67,200	
701	Turn Lanes and Median Openings		1,215	sy	\$	44.00	\$	53,438	
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	795,905	
Majo	or Construction Component Allow	ances:							
	Item Description	Notes			Alle	owance		Item Cost	
<b>√</b>	Prep ROW					3%	-	23,877	
	Traffic Control	Construction Phase	Traffic Control			3%	\$	23,877	
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	31,836	
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	238,771	
	Illumination					11%	\$	89,625	
	Special Drainage Structures	None Anticipated			\$	-	\$	-	
	Water	Minor Adjustments				6%	\$	47,754	
	Sewer	Minor Adjustments				4%		31,836	
	Establish Turf / Erosion Control					3%		23,877	
	Basic Landscaping					3%		23,877	
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-	
	Other: \$0					\$ <b>\$</b>	-		
Allowance Subtotal:								535,331	
Paving and Allowance Subtotal:								1,331,236	
		Constru	uction Conti	ngency:		15%	\$	199,685	
			Construction Cost TOTAL:						

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,531,000				
Engineering/Survey/Testing:		20%	\$	306,200				
Mobilization		5%	\$	76,550				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	153,100				
	\$	2,067,000						

**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.

Service Area(s):

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

D

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: **D-38** Project No. Name: Ray White Rd. (3) This project consists of the Limits: 230' N of Wall Price Keller Rd. to Wall Price Keller Rd. reconstruction of an existing Impact Fee Class: MA4D-B two-lane undivided asphalt **Ultimate Class:** Major Arterial facility into a four-lane divided Length (If): 230 major arterial.

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation	1,048	су	\$	10.50	\$	11,002
209	6" Lime Stabilization (with Lime @ 32#/sy)	1,584	sy	\$	3.00	\$	4,753
309	11" Concrete Pavement	1,482	sy	\$	44.00	\$	65,218
409	6" Curb & Gutter	920	lf	\$	6.50	\$	5,980
509	4" Topsoil	1,099	sy	\$	5.00	\$	5,494
609	4' Concrete Sidewalk	1,840	sf	\$	5.00	\$	9,200
701	Turn Lanes and Median Openings	166	sy	\$	44.00	\$	7,316
	Paving Construction Cost Subtotal: \$						108,963

Majo	Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost			
V	Prep ROW		3%	\$	3,269			
	Traffic Control	Construction Phase Traffic Control	3%	\$	3,269			
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	4,359			
$\sqrt{}$	Roadway Drainage	Standard Internal System	30%	\$	32,689			
	Illumination		11%	\$	12,270			
	Special Drainage Structures	None Anticipated	\$ -	\$	-			
	Water	Minor Adjustments	6%	\$	6,538			
	Sewer	Minor Adjustments	4%	\$	4,359			
	Establish Turf / Erosion Control		3%	\$	3,269			
	Basic Landscaping		3%	\$	3,269			
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-			
	Other:		\$0	\$	-			
		Allowa	ınce Subtotal:	\$	73,289			
	Paving and Allowance Subtotal:							
		Construction Contingency:	15%	\$	27,338			
		Construction C	ost TOTAL:	\$	210,000			

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	210,000			
Engineering/Survey/Testing:		20%	\$	42,000			
Mobilization		5%	\$	10,500			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	21,000			
	\$	284,000					

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Ray White Rd. (4)

Limits:

Wall Price Keller Rd. to 145' N of Archer Dr.

Impact Fee Class:

Ultimate Class:

Way White Rd. (4)

Wall Price Keller Rd. to 145' N of Archer Dr.

MA4D-B

Major Arterial

Major Arterial

Description:

Project No.

This project consists of the
reconstruction of an existing two-lane
undivided asphalt facility into a fourlane divided major arterial.

Length (If): 620 Service Area(s): D, ETJ

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation	2,824	су	\$	10.50	\$	29,657
209	6" Lime Stabilization (with Lime @ 32#/sy)	4,271	sy	\$	3.00	\$	12,813
309	11" Concrete Pavement	3,996	sy	\$	44.00	\$	175,804
409	6" Curb & Gutter	2,480	lf	\$	6.50	\$	16,120
509	4" Topsoil	2,962	sy	\$	5.00	\$	14,811
609	4' Concrete Sidewalk	4,960	sf	\$	5.00	\$	24,800
701	Turn Lanes and Median Openings	448	sy	\$	44.00	\$	19,721
	Paving Construction Cost Subtotal: \$						293,727

Major Construction Component Alley	***************************************					
Major Construction Component Allow Item Description	Notes	Allowance		Item Cost		
√ Prep ROW		3%	\$	8,812		
√ Traffic Control	Construction Phase Traffic Control	3%	\$	8,812		
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	11,749		
√ Roadway Drainage	Standard Internal System	30%	\$	88,118		
√ Illumination		11%	\$	33,076		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
√ Water	Minor Adjustments	6%	\$	17,624		
√ Sewer	Minor Adjustments	4%	\$	11,749		
√ Establish Turf / Erosion Control		3%	\$	8,812		
√ Basic Landscaping		3%	\$	8,812		
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
Other:		\$0	\$	-		
	Allov	ance Subtotal:	\$	197,563		
	\$	491,289				
	\$	73,693				
	Construction Contingency: 15% Construction Cost TOTAL:					

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			
	\$	763,000					

**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.

**Project Information:** 

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Description: Project No. D-40

Name: Ray White Rd. (5) This project consists of the

Limits: 145' N of Archer Dr. to 170' N of Mirage Dr. reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Length (If): 500 Service Area(s): D

Roa	dway Construction Cost Projection							
No.	Item Description	Quantity Unit		Unit Price		t Unit Price		Item Cost
109	Unclassified Street Excavation	2,278	су	\$	10.50	\$ 23,917		
209	6" Lime Stabilization (with Lime @ 32#/sy)	3,444	sy	\$	3.00	\$ 10,333		
309	11" Concrete Pavement	3,222	sy	\$	44.00	\$ 141,778		
409	6" Curb & Gutter	2,000	lf	\$	6.50	\$ 13,000		
509	4" Topsoil	2,389	sy	\$	5.00	\$ 11,944		
609	4' Concrete Sidewalk	4,000	sf	\$	5.00	\$ 20,000		
701	Turn Lanes and Median Openings	361	sy	\$	44.00	\$ 15,904		

Paving Construction Cost Subtotal: \$ 236,876

Major C	Major Construction Component Allowances:								
Ite	em Description	Notes	Allowance		Item Cost				
√ Pr	ep ROW		3%	\$	7,106				
√ Tra	affic Control	Construction Phase Traffic Control	3%	\$	7,106				
√ Pa	avement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	9,475				
√ Ro	oadway Drainage	Standard Internal System	30%	\$	71,063				
√ IIIu	umination		11%	\$	26,674				
Sp	pecial Drainage Structures	None Anticipated	\$ -	\$	-				
√ W	ater	Minor Adjustments	6%	\$	14,213				
√ Se	ewer	Minor Adjustments	4%	\$	9,475				
√ Es	stablish Turf / Erosion Control		3%	\$	7,106				
√ Ba	asic Landscaping		3%	\$	7,106				
Inte	ersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
Ot	ther:		\$0	\$	-				
		Allowa	ince Subtotal:	\$	159,325				
	Paving and Allowance Subtotal:								
	Construction Contingency: 15%								
		Construction C	ost TOTAL:	\$	456,000				

Impact Fee Project Cost Sun Item Description	nmary Notes:	Allowance		Item Cost
•	Notes.		_	
Construction:		-	\$	456,000
Engineering/Survey/Testing:		20%	\$	91,200
Mobilization		5%	\$	22,800
Previous City contribution			\$	-
Other				
ROW/Easement Acquisition:	Existing Alignment	10%	\$	45,600
	\$	616,000		

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

D

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **D-41** Name: Ray White Rd. (6) This project consists of the widening of a two-lane Limits: Shiver Rd. to N. Tarrant Pkwy. undivided concrete facility into a four-lane divided Impact Fee Class: MA4D-B (1/2) major arterial. **Ultimate Class:** Major Arterial Length (If): 2,645 Service Area(s):

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit Price			Item Cost
111	Unclassified Street Excavation	6,172	су	\$	10.50	\$	64,803
211	6" Lime Stabilization (with Lime @ 32#/sy)	9,111	sy	\$	3.00	\$	27,332
311	11" Concrete Pavement	8,523	sy	\$	44.00	\$	375,002
411	6" Curb & Gutter	7,935	lf	\$	6.50	\$	51,578
511	4" Topsoil	9,551	sy	\$	5.00	\$	47,757
611	4' Concrete Sidewalk	10,580	sf	\$	5.00	\$	52,900
701	Turn Lanes and Median Openings	1,912	sy	\$	44.00	\$	84,133
	Paying Construction Cost Subtotal: \$						

Paving Construction Cost Subtotal:	\$	703,504
------------------------------------	----	---------

Major Construction Component Allow Item Description	Notes	Allowance		Item Cost
√ Prep ROW		3%	\$	21,105
√ Traffic Control	Construction Phase Traffic Control	3%	\$	21,105
√ Pavement Markings/Markers		2%	\$	15,102
√ Roadway Drainage	Standard Internal System	30%	\$	211,051
√ Illumination		11%	\$	79,220
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000
√ Water	Minor Adjustments	6%	\$	42,210
√ Sewer	Minor Adjustments	4%	\$	28,140
√ Establish Turf / Erosion Control		3%	\$	21,105
√ Basic Landscaping		3%	\$	21,105
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000
Other:		\$0	\$	-
	wance Subtotal:	\$	860,144	
	\$	1,563,648		
Construction Contingency: 15%				234,547
	Construction	Cost TOTAL:	\$	1,799,000

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	1,799,000		
Engineering/Survey/Testing:		20%	\$	359,800		
Mobilization		5%	\$	89,950		
Previous City contribution			\$	-		
Other	CFA# 2008064 & 2010004		\$	(145,264)		
ROW/Easement Acquisition:	Existing Alignment	10%	\$	179,900		
	\$	2,283,000				

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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area E

<u>#</u>	<u>Class</u>	Project	<u>Limits</u>	Cost
E-1	MA4D-B	Heritage Trace Pkwy. (1)	Existing Boat Club Rd. to City Limits	\$ 9,999,000
E-2	MA4D-B	Heritage Trace Pkwy. (2)	Old Decatur to 250' W. of Wagley Robertson Rd.	\$ 10,772,000
E-3	M4U	Park Dr. (1)	Boat Club Rd. to Park Dr. (Right-angle turn)	\$ 5,053,000
E-4	M4U (1/2)	Park Dr. (2)	Park Dr. (Right-angle turn) to 815' E. of Park Dr.	\$ 351,000
E-5	M4U	Park Dr. (3)	815' E. of Park Dr. to Old Decatur Rd.	\$ 3,699,000
E-6	M4U	Robertson Rd.	680' W. of Lake Country Dr. to Boat Club Rd.	\$ 4,155,000
E-7	M4U	Lake Country Dr. (1)	Western Lakes Dr. to Eagle Ranch Blvd.	\$ 2,817,000
E-8	M4U	Lake Country Dr. (2)	Eagle Ranch Blvd. to Robertson Rd.	\$ 1,274,000
E-9, G-1	M4U-B	W J Boaz Rd.	Boat Club Rd. to Old Decatur Rd.	\$ 11,351,000
E-10	MA4D-B	Boat Club Rd.	Bonds Ranch Rd. to Park Dr.	\$ 21,254,000
E-11	M4U-B	Old Decatur Rd. (1)	285' S. of Milo Dr. to 200' S. of Millstone Trl.	\$ 718,000
E-12	M4U-B	Willow Springs Rd.	1680' S. of Hicks Rd. to Future Heritage Trace Pkwy.	\$ 8,803,000
C-17, E-13	MA4D-B	Wagley Robertson Rd. (4)	Hillwood Blvd. to 440' N of Coneflower Trl.	\$ 5,088,000
C-19, E-14	MA4D	Wagley Robertson Rd. (6)	150' N of Mystic River Trl. to 700' S of Mystic River Trl.	\$ 1,023,000
E-15	MA4D-B	Bailey Boswell Rd. (1)	Boat Club Rd. to 165' E. of Axis Deer Run	\$ 2,448,000
E-16	MA4D-B	Bailey Boswell Rd. (2)	40' W. of Bowman Roberts Rd. to 30' W. of Old Decatur Rd.	\$ 10,008,000

TOTAL \$ 98,813,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50 | \$

updated: 10/2/2012

Item Cost

350,140

Project Information: Description: Project No. E-1

Name: Heritage Trace Pkwy. (1) This project consists of the construction of a new

Quantity

33,347

Unit

су

Limits: Existing Boat Club Rd. to City Limits four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 7,320
Service Area(s): E

109 Unclassified Street Excavation

No. Item Description

209	6" Lime Stabilization (with Lime @ 3	2#/sy)	50,427	sy	\$	3.00	\$ 151,280
309	11" Concrete Pavement		47,173	sy	\$	44.00	\$ 2,075,627
409	6" Curb & Gutter		29,280	lf	\$	6.50	\$ 190,320
509	4" Topsoil		34,973	sy	\$	5.00	\$ 174,867
609	4' Concrete Sidewalk		58,560	sf	\$	5.00	\$ 292,800
701	Turn Lanes and Median Openings		5,292	sy	\$	44.00	\$ 232,837
		Pa	ving Const	ruction (	Cost	Subtotal:	\$ 3,467,870
Majo	or Construction Component Allowa	ınces:					
	Item Description	Notes			All	owance	Item Cost
	Prep ROW					3%	\$ 104,036
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$ 138,715
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 1,040,361
	Illumination					11%	\$ 390,508
	Special Drainage Structures	None Anticipated			\$	-	\$ -
$\sqrt{}$	Water	Minor Adjustments				6%	\$ 208,072
$\sqrt{}$	Sewer	Minor Adjustments				4%	\$ 138,715
$\sqrt{}$	Establish Turf / Erosion Control					3%	\$ 104,036
$\sqrt{}$	Basic Landscaping					3%	\$ 104,036
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$ 300,000
	Other:					\$0	\$ -
Allowance Subtotal:							\$ 2,528,479
Paving and Allowance Subtotal:					5,996,349		
Construction Contingency: 15%					899,452		
Construction Cost TOTAL:						\$ 6,896,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,896,000
Engineering/Survey/Testing:		20%	\$ 1,379,200
Mobilization		5%	\$ 344,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,379,200
	\$ 9,999,000		

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. E-2
Name: Heritage Trace Pkwy. (2) This project consists of the

Limits: Old Decatur to 250' W. of Wagley Robertson Rd. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial
Length (If): 7,315
Service Area(s): E

Basic Landscaping

Other:

Intersections (Signal, Roundabout, etc.)

Roa	adway Construction Cost Proj	ection						
No.	Item Description		Quantity	Unit	U	nit Price		Item Cost
109	Unclassified Street Excavation		33,324	су	\$	10.50	\$	349,901
209	6" Lime Stabilization (with Lime @ 32	2#/sy)	50,392	sy	\$	3.00	\$	151,177
309	11" Concrete Pavement		47,141	sy	\$	44.00	\$	2,074,209
409	6" Curb & Gutter		29,260	lf	\$	6.50	\$	190,190
509	4" Topsoil		34,949	sy	\$	5.00	\$	174,747
609	4' Concrete Sidewalk		58,520	sf	\$	5.00	\$	292,600
701	Turn Lanes and Median Openings		5,288	sy	\$	44.00	\$	232,678
	Paving Construction (					Subtotal:	\$	3,465,502
			army comen					
L			g ••					
Majo	or Construction Component Allowa	nces:	army conc.					
Majo	Item Description		g			lowance		Item Cost
Majo	Item Description Prep ROW	nces:				lowance		Item Cost 103,965
	Item Description	nces:				lowance 3% 0%	\$	
	Item Description Prep ROW	nces: Notes				lowance	\$	
<b>√</b>	Prep ROW Traffic Control	Notes  None Anticipated	with Bike Lanes			lowance 3% 0%	\$	103,965
√ √	Prep ROW Traffic Control Pavement Markings/Markers	Notes  None Anticipated Pavement Markings	with Bike Lanes			3% 0% 4%	\$ \$ \$	103,965 - 138,620
\ \ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage	Notes  None Anticipated Pavement Markings	with Bike Lanes stem			lowance 3% 0% 4% 30%	\$ \$ \$	103,965 - 138,620 1,039,650
\ \ \ \ \	Item Description  Prep ROW  Traffic Control  Pavement Markings/Markers  Roadway Drainage  Illumination	Notes  None Anticipated Pavement Markings Standard Internal Sy	with Bike Lanes stem		Al	lowance 3% 0% 4% 30% 11%	\$ \$ \$ \$ \$	103,965 - 138,620 1,039,650 390,241
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Item Description  Prep ROW  Traffic Control  Pavement Markings/Markers  Roadway Drainage  Illumination  Special Drainage Structures	Notes  None Anticipated Pavement Markings Standard Internal Sy  Minor Stream Crossi	with Bike Lanes stem		Al	3% 0% 4% 30% 11% 250,000	\$ \$ \$ \$ \$ \$ \$	103,965 - 138,620 1,039,650 390,241 250,000

Allowance Subtotal:	\$ 3,026,957
Paving and Allowance Subtotal:	\$ 6,492,458
Construction Contingency: 15%	\$ 936,369
Construction Cost TOTAL:	\$ 7,429,000

Assume Improvement per Half Mile

Railroad Crossing

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	7,429,000			
Engineering/Survey/Testing:		20%	\$	1,485,800			
Mobilization		5%	\$	371,450			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,485,800			
	\$	10,772,000					

**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.

3%

\$

\$150,000

\$250,000

103,965 300,000

250.000

No. Item Description

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Item Cost

<b>Project Informat</b>	tion:	Description:	Project No.	E-3
Name:	Park Dr. (1)		This project consists of	the
Limits:	Boat Club Rd. to Park Dr. (Right-angle	turn)	reconstruction of an exi	isting two-lane
Impact Fee Class:	M4U		undivided asphalt facilit	ty into a four-
Ultimate Class:	Minor Arterial		lane undivided minor ar	terial.
Length (If):	5,345			
Service Area(s):	E			

Quantity Unit Unit Price

NO.	item bescription		Qualitity	Oill	OI I	IL FIICE		item Cost
106	Unclassified Street Excavation		17,223	су	\$	10.50	\$	180,839
206	6" Lime Stabilization (with Lime @ 3	32#/sy)	33,852	sy	\$	3.00	\$	101,555
306	9" Concrete Pavement		32,664	sy	\$	36.00	\$	1,175,900
406	6" Curb & Gutter		10,690	lf	\$	6.50	\$	69,485
506	4" Topsoil		8,908	sy	\$	5.00	\$	44,542
606	4' Concrete Sidewalk		42,760	sf	\$	5.00	\$	213,800
701	Turn Lanes and Median Openings		0					
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	1,786,121
Maj	or Construction Component Allowa							
	Item Description	Notes			All	owance		Item Cost
$\sqrt{}$	Prep ROW					3%		53,584
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%		53,584
$\sqrt{}$	Pavement Markings/Markers					2%		38,342
√,	Roadway Drainage	Standard Internal Sy	stem			30%	-	535,836
$\checkmark$	Illumination					11%	\$	201,130
Ι,	Special Drainage Structures	None Anticipated			\$	-	\$	-
√,	Water	Minor Adjustments				6%		107,167
√,	Sewer	Minor Adjustments				4%		71,445
٧,	Establish Turf / Erosion Control					3%		53,584
٧,	Basic Landscaping					3%		53,584
V	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	300,000
	Other:					\$0	\$	- 4 400 050
Allowance Subtotal:						\$	1,468,256	
						_	0.054.650	
Paving and Allowance Subtotal:  Construction Contingency: 15%						3,254,376		
		Constru		-		15%		488,156
			Construc	ction C	ost	IOIAL:	\$	3,743,000

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	3,743,000		
Engineering/Survey/Testing:		20%	\$	748,600		
Mobilization		5%	\$	187,150		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	374,300		
	\$	5,053,000				

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:
Park Dr. (2)
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:
Park Dr. (2)
Minor Arterial

Park Dr. (2)
This project consists of the widening of a two-lane undivided concrete facility into a four-lane undivided minor arterial.

Name:
Project No.

This project No.

A two-lane undivided concrete facility into a four-lane undivided minor arterial.

Quantity Unit Unit Price

Length (If): 815 Service Area(s): E

No. Item Description

204   6" Lime Stabilization (with Lime @ 32#/sy)   2,581   sy   \$ 3.00   \$ 7,74	tter hem beechpaen								
304   9" Concrete Pavement   2,490   sy   \$ 36.00   \$ 89,66   404   6" Curb & Gutter   815   if   \$ 6.50   \$ 5,25   504   4" Topsoil   679   sy   \$ 5.00   \$ 3,38   604   4" Concrete Sidewalk   3,260   sf   \$ 5.00   \$ 16,30   701   Turn Lanes and Median Openings   0	104	Unclassified Street Excavation		1,313	су	\$	10.50	\$	13,787
404 6" Curb & Gutter	204	6" Lime Stabilization (with Lime @ 3	32#/sy)	2,581	sy	\$	3.00	\$	7,743
404 6" Curb & Gutter   815   If   \$ 6.50   \$ 5.25	304	9" Concrete Pavement		2,490	sy	\$	36.00	\$	89,650
4' Concrete Sidewalk   3,260   0   5   5.00   \$   16,30     Turn Lanes and Median Openings	404	6" Curb & Gutter		815		\$	6.50	\$	5,298
Turn Lanes and Median Openings   0	504	4" Topsoil		679	sy	\$	5.00	\$	3,396
Paving Construction Cost Subtotal: \$ 136,17	604	4' Concrete Sidewalk		3,260	sf	\$	5.00	\$	16,300
Major Construction Component Allowances:         Item Description       Notes       Allowance       Item Cost         √ Prep ROW       3%       \$ 4,06         √ Traffic Control       3%       \$ 4,06         √ Pavement Markings/Markers       2%       \$ 2,93         √ Roadway Drainage       Standard Internal System       30%       \$ 40,81         √ Illumination       11%       \$ 15,33         Special Drainage Structures       None Anticipated       \$ - 5         √ Water       Minor Adjustments       6%       \$ 8,17         √ Sewer       Minor Adjustments       4%       \$ 5,44         √ Establish Turf / Erosion Control       3%       \$ 4,08         √ Basic Landscaping Intersections (Signal, Roundabout, etc.)       None Anticipated       \$0       \$         Other:       Allowance Subtotal:       \$ 89,06          Paving and Allowance Subtotal:       \$ 225,24         Construction Contingency:       15%       \$ 33,78	701	Turn Lanes and Median Openings		0					
Item Description         Notes         Allowance         Item Cost           √ Prep ROW         3%         \$ 4,08           √ Traffic Control         3%         \$ 4,08           √ Pavement Markings/Markers         2%         \$ 2,92           √ Roadway Drainage         Standard Internal System         30%         \$ 40,88           √ Illumination         11%         \$ 15,33           Special Drainage Structures         None Anticipated         \$ - \$           √ Water         Minor Adjustments         6%         \$ 8,17           √ Sewer         Minor Adjustments         4%         \$ 5,44           √ Establish Turf / Erosion Control         3%         \$ 4,08           √ Basic Landscaping         3%         \$ 4,08           Intersections (Signal, Roundabout, etc.)         None Anticipated         \$0           Other:         None Anticipated         \$0           Allowance Subtotal:         \$ 89,06           Paving and Allowance Subtotal:         \$ 225,22           Construction Contingency:         15%			Pa	aving Const	ruction (	Cost	Subtotal:	\$	136,173
Item Description         Notes         Allowance         Item Cost           √ Prep ROW         3%         \$ 4,08           √ Traffic Control         2%         \$ 2,92           √ Roadway Drainage         Standard Internal System         30%         \$ 40,88           √ Illumination         11%         \$ 15,33           Special Drainage Structures         None Anticipated         \$ - \$           √ Water         Minor Adjustments         6%         \$ 8,17           √ Sewer         Minor Adjustments         4%         \$ 5,44           √ Establish Turf / Erosion Control         Minor Adjustments         3%         \$ 4,08           √ Basic Landscaping         3%         \$ 4,08           Intersections (Signal, Roundabout, etc.)         None Anticipated         \$0         \$           Other:         Allowance Subtotal:         \$ 89,06									
√ Prep ROW         3%         \$ 4,00           √ Traffic Control         3%         \$ 4,00           √ Pavement Markings/Markers         2%         \$ 2,92           √ Roadway Drainage         Standard Internal System         30%         \$ 40,85           √ Illumination         11%         \$ 15,33           Special Drainage Structures         None Anticipated         \$ - 5           √ Water         Minor Adjustments         6%         \$ 8,17           √ Establish Turf / Erosion Control         3%         \$ 4,08           √ Establish Turf / Erosion Control         3%         \$ 4,08           √ Basic Landscaping         3%         \$ 4,08           Intersections (Signal, Roundabout, etc.)         None Anticipated         \$0           Other:         Allowance Subtotal:         \$ 89,06    Paving and Allowance Subtotal:  \$ 225,22  Construction Contingency:    15%	Majo	or Construction Component Allows	ances:						
√ Traffic Control       Construction Phase Traffic Control       3%       \$ 4,08         √ Pavement Markings/Markers       Standard Internal System       30%       \$ 40,88         √ Roadway Drainage       Standard Internal System       30%       \$ 40,88         √ Illumination       11%       \$ 15,33         Special Drainage Structures       None Anticipated       \$ - \$         √ Water       Minor Adjustments       6%       \$ 8,17         √ Sewer       Minor Adjustments       4%       \$ 5,44         √ Establish Turf / Erosion Control       3%       \$ 4,08         √ Basic Landscaping       3%       \$ 4,08         Intersections (Signal, Roundabout, etc.)       None Anticipated       \$0         Other:       * Allowance Subtotal:       \$ 89,00         Paving and Allowance Subtotal:       \$ 225,22         Construction Contingency:       15%       \$ 33,78		Item Description	Notes			All	owance		Item Cost
√ Pavement Markings/Markers 2% \$ 2,92   √ Roadway Drainage Standard Internal System 30% \$ 40,88   √ Illumination 11% \$ 15,33   Special Drainage Structures None Anticipated \$ - \$ 8,11   √ Water Minor Adjustments 6% \$ 8,11   √ Establish Turf / Erosion Control Minor Adjustments 4% \$ 5,44   √ Establish Turf / Erosion Control 3% \$ 4,08   √ Basic Landscaping 3% \$ 4,08   Intersections (Signal, Roundabout, etc.) None Anticipated \$0   Other: \$ 40    **Paving and Allowance Subtotal: \$ 225,24   **Construction Contingency: 15% \$ 33,78		Prep ROW					3%	\$	4,085
√ Roadway Drainage Standard Internal System 30% \$ 40,88   √ Illumination 11% \$ 15,33   Special Drainage Structures None Anticipated \$ - \$ 8,13   √ Water Minor Adjustments 6% \$ 8,13   √ Sewer Minor Adjustments 4% \$ 5,44   √ Establish Turf / Erosion Control 3% \$ 4,08   √ Basic Landscaping 3% \$ 4,08   Intersections (Signal, Roundabout, etc.) None Anticipated \$0   Other: \$ 40    **Beging**  **Allowance Subtotal: \$ 89,06   **Beging**  **Paving and Allowance Subtotal: \$ 33,78   **Construction Contingency: 15% \$ 33,78		Traffic Control	Construction Phase	Traffic Control			3%	\$	4,085
√ Illumination Special Drainage Structures None Anticipated \$ - \$   √ Water Minor Adjustments 6% 8,11   √ Sewer Minor Adjustments 4% \$ 5,44   √ Establish Turf / Erosion Control 3% \$ 4,08   √ Basic Landscaping 3% \$ 4,08   Intersections (Signal, Roundabout, etc.) None Anticipated \$0   Other: Allowance Subtotal: \$ 89,06    Paving and Allowance Subtotal:  Construction Contingency:  15%  33,78		Pavement Markings/Markers					2%	\$	2,923
Special Drainage Structures  √ Water  √ Water  √ Sewer  √ Establish Turf / Erosion Control  √ Basic Landscaping  Intersections (Signal, Roundabout, etc.)  Other:   None Anticipated  Minor Adjustments  Minor Adjustments  4%  5,44  4,08  4,08  5,00  80  S  Allowance Subtotal:  Paving and Allowance Subtotal:  Construction Contingency:  15%  33,78	$\sqrt{}$		Standard Internal Sy	stem			30%	\$	40,852
√ Water       Minor Adjustments       6%       \$ 8,17         √ Sewer       Minor Adjustments       4%       \$ 5,44         √ Establish Turf / Erosion Control       3%       \$ 4,08         √ Basic Landscaping       3%       \$ 4,08         Intersections (Signal, Roundabout, etc.)       None Anticipated       \$0         Other:       \$0       \$         Allowance Subtotal:       \$ 89,06         Paving and Allowance Subtotal:       \$ 225,24         Construction Contingency:       15%       \$ 33,78		Illumination					11%	\$	15,334
√ Sewer       Minor Adjustments       4%       \$ 5,44         √ Establish Turf / Erosion Control       3%       \$ 4,08         √ Basic Landscaping       3%       \$ 4,08         Intersections (Signal, Roundabout, etc.)       None Anticipated       \$0       \$         Other:       \$0       \$         Allowance Subtotal:       \$ 89,06         Paving and Allowance Subtotal:       \$ 225,24         Construction Contingency:       15%       \$ 33,78		Special Drainage Structures	None Anticipated			\$	-		-
<ul> <li>✓ Establish Turf / Erosion Control</li> <li>✓ Basic Landscaping</li> <li>Intersections (Signal, Roundabout, etc.)</li> <li>Other:</li> <li>None Anticipated</li> <li>Storing</li> <li>Allowance Subtotal:</li> <li>Construction Contingency:</li> <li>15%</li> <li>4,08</li> <li>4,08</li> <li>4,08</li> <li>50</li> <li>89,06</li> <li>225,24</li> <li>33,78</li> </ul>		Water	Minor Adjustments						8,170
√ Basic Landscaping Intersections (Signal, Roundabout, etc.)       None Anticipated       \$0 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$		Sewer	Minor Adjustments						5,447
Intersections (Signal, Roundabout, etc.) Other:  None Anticipated S0 \$ \$0 \$ \$ Allowance Subtotal: Paving and Allowance Subtotal: Construction Contingency: 15% \$33,78	√.								4,085
Other: \$0 \$  Allowance Subtotal: \$89,06  Paving and Allowance Subtotal: \$225,26  Construction Contingency: 15% \$33,78									4,085
Paving and Allowance Subtotal: \$ 89,06  Paving and Allowance Subtotal: \$ 225,26  Construction Contingency: 15% \$ 33,78		, ,	None Anticipated						-
Paving and Allowance Subtotal: \$ 225,24  Construction Contingency: 15% \$ 33,78		Other:					·	_	-
Construction Contingency: 15% \$ 33,78	Allowance Subtotal:						\$	89,067	
Construction Contingency: 15% \$ 33,78									
							225,240		
Construction Cost TOTAL: \$ 260,00			Constru					*	33,786
				Constru	ction C	ost <sup>-</sup>	TOTAL:	\$	260,000

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	260,000		
Engineering/Survey/Testing:		20%	\$	52,000		
Mobilization		5%	\$	13,000		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	26,000		
	\$	351,000				

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 E-5

 Name:
 Park Dr. (3)
 This project consists of the construction of a new

Limits: 815' E. of Park Dr. to Old Decatur Rd. four-lane undivided minor arterial.

Impact Fee Class: M4U
Ultimate Class: Minor Arterial
Length (If): 3,810
Service Area(s): E

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	12,277	су	\$	10.50	\$ 128,905
206	6" Lime Stabilization (with Lime @ 32#/sy)	24,130	sy	\$	3.00	\$ 72,390
306	9" Concrete Pavement	23,283	sy	\$	36.00	\$ 838,200
406	6" Curb & Gutter	7,620	lf	\$	6.50	\$ 49,530
506	4" Topsoil	6,350	sy	\$	5.00	\$ 31,750
606	4' Concrete Sidewalk	30,480	sf	\$	5.00	\$ 152,400
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 1,273,175

Major Construction Component Allo	wances:			
Item Description	Notes	Allowance	П	Item Cost
√ Prep ROW		3%	\$	38,195
Traffic Control	None Anticipated	0%	\$	-
√ Pavement Markings/Markers		2%	\$	27,331
√ Roadway Drainage	Standard Internal System	30%	\$	381,953
√ Illumination		11%	\$	143,369
Special Drainage Structures	None Anticipated	\$ -	\$	-
√ Water	Minor Adjustments	6%	\$	76,391
√ Sewer	Minor Adjustments	4%	\$	50,927
√ Establish Turf / Erosion Control		3%	\$	38,195
√ Basic Landscaping		3%	\$	38,195
Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000
Other:		\$0	\$	-
	Allov	vance Subtotal:	\$	944,556
	\$	2,217,731		
	Construction Contingenc	y: 15%	\$	332,660
	Construction	Cost TOTAL:	\$	2,551,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	2,551,000				
Engineering/Survey/Testing:		20%	\$	510,200				
Mobilization		5%	\$	127,550				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	510,200				
	\$	3,699,000						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. E-6	
Name:	Robertson Rd.		This project consists of the	
Limits:	680' W. of Lake Country Dr. to Boat C	lub Rd.	reconstruction of an existing two-lane	
Impact Fee Class:	M4U		undivided asphalt facility into a four-	
Ultimate Class:	Minor Arterial		lane undivided minor arterial.	
Length (If): 4,570				
Service Area(s).	F			

No.	No.   Item Description   Quantity   Unit   Unit Price					Item Cost		
106	Unclassified Street Excavation		14,726	су	\$	10.50	\$	154,618
206	6" Lime Stabilization (with Lime @ 3	2#/sy)	28,943	sy	\$	3.00	\$	86,830
306	9" Concrete Pavement		27,928	sy	\$	36.00	\$	1,005,400
406	6" Curb & Gutter		9,140	lf	\$	6.50	\$	59,410
506	4" Topsoil		7,617	sy	\$	5.00	\$	38,083
606	4' Concrete Sidewalk		36,560	sf	\$	5.00	\$	182,800
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,527,142
Maio	or Construction Component Allowa	anaaci.	_	_	_	_		
Majo	Item Description	Notes			Alla	owance		Item Cost
	Prep ROW	110100			7 111	3%	\$	45,814
V	Traffic Control	Construction Phase	Traffic Control			3%		45,814
$\sqrt{}$	Pavement Markings/Markers					2%	\$	32,783
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%	\$	458,143
$\checkmark$	Illumination					11%		171,967
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\sqrt{}$	Water	Minor Adjustments				6%	\$	91,629
	Sewer	Minor Adjustments				4%	\$	61,086
$\checkmark$	Establish Turf / Erosion Control					3%	\$	45,814
	Basic Landscaping					3%	\$	45,814
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:	\$0			\$	-		
Allowance Subtotal:						\$	1,148,864	
						Ļ		
Paving and Allowance Subtotal:							2,676,006	
Construction Contingency: 15%						401,401		
			Construc	ction C	ost T	IOTAL:	\$	3,078,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	3,078,000				
Engineering/Survey/Testing:		20%	\$	615,600				
Mobilization		5%	\$	153,900				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	307,800				
	\$	4,155,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. E-7

Name: Lake Country Dr. (1) This project consists of the Western Lakes Dr. to Eagle Ranch Blvd. Limits: construction of a new four-lane

Impact Fee Class: M4U **Ultimate Class:** Minor Arterial Length (If): 2,995

Ε

Service Area(s):

undivided minor arterial.

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Ur	it Price		Item Cost
106	Unclassified Street Excavation	9,651	су	\$	10.50	\$	101,331
206	6" Lime Stabilization (with Lime @ 32#/sy)	18,968	sy	\$	3.00	\$	56,905
306	9" Concrete Pavement	18,303	sy	\$	36.00	\$	658,900
406	6" Curb & Gutter	5,990	lf	\$	6.50	\$	38,935
506	4" Topsoil	4,992	sy	\$	5.00	\$	24,958
606	4' Concrete Sidewalk	23,960	sf	\$	5.00	\$	119,800
701	Turn Lanes and Median Openings	0					
	n.			<b>&gt;</b> 1	0	4	4 000 000

Paving Construction Cost Subtotal: \$ 1,000,829

Majo	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	30,025				
	Traffic Control	Construction Phase Traffic Control	3%	\$	30,025				
	Pavement Markings/Markers	Pavement Markings and Bike Route	3%	\$	30,025				
	Roadway Drainage	Standard Internal System	30%	\$	300,249				
	Illumination		11%	\$	112,701				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
	Water	Minor Adjustments	6%	\$	60,050				
	Sewer	Minor Adjustments	4%	\$	40,033				
	Establish Turf / Erosion Control		3%	\$	30,025				
	Basic Landscaping		3%	\$	30,025				
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000				
	Other:								
		Allowa	ance Subtotal:	\$	813,157				
	Paving and Allowance Subtotal:								
	Construction Contingency: 15%								
		Construction C	ost TOTAL:	\$	2,087,000				

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,087,000
Engineering/Survey/Testing:		20%	\$ 417,400
Mobilization		5%	\$ 104,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 208,700
	\$ 2,817,000		

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. E-8

Name: Lake Country Dr. (2) This project consists of the construction of a new

Limits: Eagle Ranch Blvd. to Robertson Rd. four-lane undivided minor arterial.

Impact Fee Class: M4U
Ultimate Class: Minor Arterial
Length (If): 1,485
Service Area(s): E

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	4,785	су	\$	10.50	\$ 50,243
206	6" Lime Stabilization (with Lime @ 32#/sy)	9,405	sy	\$	3.00	\$ 28,215
306	9" Concrete Pavement	9,075	sy	\$	36.00	\$ 326,700
406	6" Curb & Gutter	2,970	lf	\$	6.50	\$ 19,305
506	4" Topsoil	2,475	sy	\$	5.00	\$ 12,375
606	4' Concrete Sidewalk	11,880	sf	\$	5.00	\$ 59,400
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 496,238

Major Construction Component Allow	vances:		
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 14,887
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 14,887
√ Pavement Markings/Markers		2%	\$ 10,653
√ Roadway Drainage	Standard Internal System	30%	\$ 148,871
√ Illumination		11%	\$ 55,880
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 29,774
√ Sewer	Minor Adjustments	4%	\$ 19,850
√ Establish Turf / Erosion Control		3%	 14,887
√ Basic Landscaping		3%	\$ 14,887
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	ance Subtotal:	\$ 324,576
	Paving and Allowa		
	820,814		
	\$ 123,122		
	Construction C	ost TOTAL:	\$ 944,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 944,000
Engineering/Survey/Testing:		20%	\$ 188,800
Mobilization		5%	\$ 47,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 94,400
	\$ 1,274,000		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

W J Boaz Rd.

Limits:

Boat Club Rd. to Old Decatur Rd.

Impact Fee Class:

M4U-B

Description:

Project No.

E-9, G-1

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Ultimate Class:
Length (If):
Service Area(s):

Minor Arterial
10,830
E,G

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation	36,100	су	\$	10.50	\$	379,050
207	6" Lime Stabilization (with Lime @ 32#/sy)	70,997	sy	\$	3.00	\$	212,990
307	9" Concrete Pavement	68,590	sy	\$	36.00	\$	2,469,240
407	6" Curb & Gutter	21,660	lf	\$	6.50	\$	140,790
507	4" Topsoil	15,643	sy	\$	5.00	\$	78,217
607	4' Concrete Sidewalk	86,640	sf	\$	5.00	\$	433,200
701	Turn Lanes and Median Openings	0					
	Paving Construction Cost Subtotal: \$					3,713,487	

		i aving constitution of	Jost Gabtotal.	Ψ	0,1 10,401			
Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost			
	Prep ROW		3%	\$	111,405			
	Traffic Control	Construction Phase Traffic Control	3%	\$	111,405			
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	148,539			
	Roadway Drainage	Standard Internal System	30%	\$	1,114,046			
	Illumination		11%	\$	418,166			
	Special Drainage Structures	Two Minor Stream Crossings	\$ 500,000	\$	500,000			
	Water	Minor Adjustments	6%	\$	222,809			
	Sewer	Minor Adjustments	4%	\$	148,539			
	Establish Turf / Erosion Control		3%	\$	111,405			
	Basic Landscaping		3%	\$	111,405			
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	600,000			
	Other:							
		Allowa	ince Subtotal:	\$	3,597,718			
	Paving and Allowance Subtotal:							
	Construction Contingency: 15%							
		Construction C	ost TOTAL:	\$	8,408,000			

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	8,408,000			
Engineering/Survey/Testing:		20%	\$	1,681,600			
Mobilization		5%	\$	420,400			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	840,800			
	\$	11,351,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

10.50

updated: 10/2/2012

**Item Cost** 

675,885

Project Information: Description: Project No. E-10

Name: Boat Club Rd. This project consists of the construction of a new

Quantity

64,370

Unit

су

Limits: Bonds Ranch Rd. to Park Dr. four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 14,130
Service Area(s): E

109 Unclassified Street Excavation

No. Item Description

209	6" Lime Stabilization (with Lime @ 3	32#/sy)	97,340	sy	\$	3.00	\$	292,020
309	11" Concrete Pavement	91,060 sy			\$	44.00	\$	4,006,640
409	6" Curb & Gutter		56,520 If			6.50	\$	367,380
509	4" Topsoil		67,510	sy	\$	5.00	\$	337,550
609	4' Concrete Sidewalk		113,040	sf	\$	5.00	\$	565,200
701	Turn Lanes and Median Openings		10,215	sy	\$	44.00	\$	449,452
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$	6,694,127
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	200,824
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$	267,765
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	2,008,238
	Illumination					11%	\$	753,808
	Special Drainage Structures	Four Minor Stream C	rossings		\$ 1,	,000,000	\$	1,000,000
	Water	Minor Adjustments				6%	\$	401,648
	Sewer	Minor Adjustments				4%	\$	267,765
	Establish Turf / Erosion Control					3%	\$	200,824
	Basic Landscaping					3%	\$	200,824
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	750,000
	Other:	\$0					\$ <b>\$</b>	-
Allowance Subtotal:								6,051,695
Paving and Allowance Subtotal:							12,745,822	
		Constru	uction Conti			15%	\$	1,911,873
Construction Cost TOTAL:							\$	14,658,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	14,658,000			
Engineering/Survey/Testing:		20%	\$	2,931,600			
Mobilization		5%	\$	732,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	2,931,600			
	\$	21,254,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: Project No. E-11 Name: Old Decatur Rd. (1) This project consists of the

Limits: 285' S. of Milo Dr. to 200' S. of Millstone Trl.

Impact Fee Class: M4U-B **Ultimate Class:** Minor Arterial

Length (If): 890 Service Area(s): Ε

reconstruction of an existing two-lane undivided asphalt facility into a four-

lane undivided minor arterial.

No.	Item Description	•	Quantity	Unit	Uni	it Price		Item Cost	
107	Unclassified Street Excavation		2,967	су	\$	10.50	\$	31,150	
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	5,834	sy	\$	3.00	\$	17,503	
307	9" Concrete Pavement		5,637	sy	\$	36.00	\$	202,920	
407	6" Curb & Gutter		1,780	lf	\$	6.50	\$	11,570	
507	4" Topsoil		1,286	sy	\$	5.00	\$	6,428	
607	4' Concrete Sidewalk		7,120	sf	\$	5.00	\$	35,600	
701	Turn Lanes and Median Openings		0						
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	305,171	
Maio	or Construction Component Allow	ances:	_	-	-	_	÷	_	
	Item Description	Notes			Allo	wance	П	Item Cost	
	Prep ROW					3%	\$	9,155	
	Traffic Control	Construction Phase	Traffic Control			3%	\$	9,155	
$\checkmark$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	12,207	
$\checkmark$	Roadway Drainage	Standard Internal Sy	stem			30%	\$	91,551	
	Illumination					11%	\$	34,364	
	Special Drainage Structures	None Anticipated			\$	-	\$	-	
	Water	Minor Adjustments				6%	\$	18,310	
	Sewer	Minor Adjustments				4%	\$	12,207	
	Establish Turf / Erosion Control					3%	\$	9,155	
	Basic Landscaping					3%	\$	9,155	
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-	
	Other:								
	Allowance Subtotal:						\$	205,260	
			Paving an	d Allowa	nce S	Subtotal:	\$	510,431	
	Construction Contingency: 15%						\$	76,565	

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 587,000
Engineering/Survey/Testing:		20%	\$ 117,400
Mobilization		5%	\$ 29,350
Previous City contribution			\$ -
Other	CFA# 2004078		\$ (74,060)
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 58,700
	\$ 718,000		

**Construction Cost TOTAL:** 

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.

587,000

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

6,071,000

Project Information:

Name:

Limits:
Inpact Fee Class:
Ultimate Class:

Name:

Description:

Description:

Project No.

E-12

This project consists of the construction of a new four-lane undivided minor arterial.

Quantity Unit

**Construction Cost TOTAL** 

**Unit Price** 

Length (If): 8,130 Service Area(s): E

No. Item Description

107	Unclassified Street Excavation		27,100	су	\$	10.50	\$	284,550
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	53,297	sy	\$	3.00	\$	159,890
307	9" Concrete Pavement		51,490	sy	\$	36.00	\$	1,853,640
407	6" Curb & Gutter		16,260	lf	\$	6.50	\$	105,690
507	4" Topsoil		11,743	sy	\$	5.00	\$	58,717
607	4' Concrete Sidewalk		65,040	sf	\$	5.00	\$	325,200
701	Turn Lanes and Median Openings		0					
	· · · · · · · · · · · · · · · · · · ·	Pa	ving Const	ruction (	Cost	Subtotal:	\$	2,787,687
Majo	or Construction Component Allowa	ances:			_			
	Item Description	Notes			ΑI	lowance		Item Cost
	Prep ROW					3%	\$	83,631
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	111,507
√.	Roadway Drainage	Standard Internal Sys	stem			30%		836,306
	Illumination					11%	\$	313,914
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	167,261
	Sewer	Minor Adjustments				4%	\$	111,507
	Establish Turf / Erosion Control					3%	\$	83,631
	Basic Landscaping					3%	\$	83,631
	Intersections (Signal, Roundabout, etc.)	Assume Improvemer	nt per Half Mile			\$150,000	\$	450,000
	Other:					\$0	_	-
Allowance Subtotal:							\$	2,491,388
			Paving an					5,279,074
Construction Contingency: 15%								791.861

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	6,071,000			
Engineering/Survey/Testing:		20%	\$	1,214,200			
Mobilization		5%	\$	303,550			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,214,200			
	\$	8,803,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. C-17, E-13

Name: Wagley Robertson Rd. (4) This project consists of the

Limits: Hillwood Blvd. to 440' N of Coneflower Trl. reconstruction of a two-lane undivided

Impact Fee Class:MA4D-Basphalt facility into a four-lane dividedUltimate Class:Major Arterialmajor arterial.

Length (If): 3,315
Service Area(s): C,E

**Roadway Construction Cost Projection** No. Item Description Quantity Unit **Unit Price Item Cost** 109 Unclassified Street Excavation 15,102 су \$ 10.50 158,568 6" Lime Stabilization (with Lime @ 32#/sy) 22,837 \$ 3.00 \$ 68,510 sy 309 11" Concrete Pavement 21,363 \$ 44.00 \$ 939.987 sy 6" Curb & Gutter 409 13,260 lf \$ 6.50 \$ 86,190 509 4" Topsoil \$ 15,838 \$ 5.00 79,192 sy 609 4' Concrete Sidewalk 26,520 \$ 132,600 sf \$ 5.00 701 Turn Lanes and Median Openings 2,396 \$ 44.00 \$ 105,445 sy

Paving Construction Cost Subtotal: \$ 1,570,490

Major Construction Component Allow	/ances:		
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 47,115
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 47,115
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 62,820
√ Roadway Drainage	Standard Internal System	30%	\$ 471,147
√ Illumination		11%	\$ 176,849
√ Special Drainage Structures	Two Stream Crossings	\$ 500,000	\$ 500,000
√ Water	Minor Adjustments	6%	\$ 94,229
√ Sewer	Minor Adjustments	4%	\$ 62,820
√ Establish Turf / Erosion Control		3%	\$ 47,115
√ Basic Landscaping		3%	\$ 47,115
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:		\$0	\$ -
	Allow	ance Subtotal:	\$ 1,706,323
	\$ 3,276,814		
	\$ 491,522		
	Construction C	ost TOTAL:	\$ 3,769,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,769,000			
Engineering/Survey/Testing:		20%	\$	753,800			
Mobilization		5%	\$	188,450			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	376,900			
	\$	5,088,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Item Cost** 

Project Information:

Name:

Limits:

Impact Fee Class:

Ultimate Class:

Name:

Wagley Robertson Rd. (6)

Major Arterial

Description:

Project No.

C-19, E-14

This project consists of the reconstruction of a two-lane undivided asphalt facility into a four-lane divided major arterial.

Quantity Unit Unit Price

Length (If): 850 Service Area(s): C, E

No. Item Description

110.	item becompain		Qualitity		;	11 1100		110111 0001
108	Unclassified Street Excavation		3,778	су	\$	10.50	\$	39,667
208	B 6" Lime Stabilization (with Lime @ 32#/sy) 5,667 sy			sy	\$	3.00	\$	17,000
308	11" Concrete Pavement		5,289	sy	\$	44.00	\$	232,711
408	6" Curb & Gutter		3,400	lf	\$	6.50	\$	22,100
508	4" Topsoil		4,250	sy	\$	5.00	\$	21,250
608	4' Concrete Sidewalk		6,800	sf	\$	5.00	\$	34,000
701	Turn Lanes and Median Openings		614	sy	\$	44.00	\$	27,037
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	393,765
Majo	or Construction Component Allowa	nces:						
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	11,813
	Traffic Control	Construction Phase	Traffic Control			3%	\$	11,813
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	15,751
	Roadway Drainage	Standard Internal Sy	stem			30%		118,129
	Illumination					11%	\$	44,341
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		23,626
$\sqrt{}$	Sewer	Minor Adjustments				4%		15,751
$\sqrt{}$	Establish Turf / Erosion Control					3%		11,813
	Basic Landscaping					3%		11,813
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0	_	-
Allowance Subtotal:								264,849
Paving and Allowance Subtotal:							658,614	
		Constru	uction Conti			15%		98,792
			Construc	ction C	ost <sup>-</sup>	ΓΟTAL:	\$	758,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	758,000			
Engineering/Survey/Testing:		20%	\$	151,600			
Mobilization		5%	\$	37,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	75,800			
	\$	1,023,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:

Bailey Boswell Rd. (1)

Limits:

Boat Club Rd. to 165' E. of Axis Deer Run

Impact Fee Class:

Ultimate Class:

Ultimate Class:

Description:

Project No. E-15

This project consists of the widening of a four-lane undivided asphalt facility into a four-lane divided major arterial.

Quantity

Unit

Length (If): 2,020 Service Area(s): E, ETJ

No. Item Description

109	Unclassified Street Excavation		9,202	су	\$	10.50	\$	96,623
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	13,916	sy	\$	3.00	\$	41,747
309	9 11" Concrete Pavement 13,018 sy			\$	44.00	\$	572,782	
409	6" Curb & Gutter		8,080	lf	\$	6.50	\$	52,520
509	4" Topsoil		9,651	sy	\$	5.00	\$	48,256
609	4' Concrete Sidewalk		16,160	sf	\$	5.00	\$	80,800
701	Turn Lanes and Median Openings		1,460	sy	\$	44.00	\$	64,253
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$	956,981
Majo	or Construction Component Allows	-						
	Item Description	Notes			Allo	owance		Item Cost
1	Prep ROW					3%		28,709
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%		28,709
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%		38,279
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%		287,094
	Illumination					11%	\$	107,763
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		57,419
	Sewer	Minor Adjustments				4%		38,279
	Establish Turf / Erosion Control					3%		28,709
	Basic Landscaping					3%		28,709
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:							-
Allowance Subtotal:								643,672
Paving and Allowa <u>nce Subtotal:</u>								1,600,653
		Constru	uction Conti			15%	-	240,098
			Construc	ction C	ost 1	TOTAL:	\$	1,841,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,841,000
Engineering/Survey/Testing:		20%	\$ 368,200
Mobilization		5%	\$ 92,050
Previous City contribution			\$ -
Other	CFA# 2004044		\$ (37,498)
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 184,100
	Impact Fee Project C	ost TOTAL:	\$ 2,448,000

**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.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informa</b>	tion:	Description:	Project No.	E-16
Name:	Bailey Boswell Rd. (2)		This project consi	ists of the
Limits:	40' W. of Bowman Roberts Rd. to 30'	W. of Old Decatur Rd.	reconstruction of	a four-lane
Impact Fee Class:	MA4D-B		undivided asphalt	facility into a
Ultimate Class:	Major Arterial		four-lane divided	major arterial.
Length (If):	8,015			•

Service Area(s): Е

Roa	adway Construction Cost Pro	jection						
	Item Description	•	Quantity	Unit	U	nit Price		Item Cost
109	Unclassified Street Excavation		36,513	су	\$	10.50	\$	383,384
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	55,214	sy	\$	3.00	\$	165,643
309	11" Concrete Pavement		51,652	sy	\$	44.00	\$	2,272,698
409	6" Curb & Gutter		32,060	lf	\$	6.50	\$	208,390
509	4" Topsoil		38,294	sy	\$	5.00	\$	191,469
609	4' Concrete Sidewalk		64,120	sf	\$	5.00	\$	320,600
701	Turn Lanes and Median Openings		5,794	sy	\$	44.00	\$	254,944
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	3,797,129
Majo	or Construction Component Allowa							
	Item Description	Notes			Α	llowance		Item Cost
	Prep ROW					3%	-	113,914
	Traffic Control	Construction Phase	Traffic Control			3%	\$	113,914
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	151,885
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	1,139,139
	Illumination					11%		427,584
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%		227,828
	Sewer	Minor Adjustments				4%		151,885
	Establish Turf / Erosion Control					3%	\$	113,914
	Basic Landscaping					3%	\$	113,914
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	450,000
	Other:							
				Allowa	ınce	Subtotal:	\$	3,253,976
	Paving and Allowance Subtotal:							7,051,105
		Constru	uction Conti			15%		1,057,666
			Construc	ction C	ost	TOTAL:	\$	8,109,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,109,000
Engineering/Survey/Testing:		20%	\$ 1,621,800
Mobilization		5%	\$ 405,450
Previous City contribution			\$
	CFA# 2004075, 2004137, 2005013, 2005062,		
Other	2005063, 2006069, & 2006075		\$ (939,439
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 810,900

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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area F

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
C-11, F-1	MA4D-B (1/2)	Basswood Blvd. (1)	Blue Mound Rd. (FM 156) to 960' E. of FM 156	\$ 664,000
C-12, F-2	MA4D-B	Basswood Blvd. (2)	960' E. of FM 156 to Horseman Rd.	\$ 6,048,000
C-13, F-3	MA4D-B (1/2)	Basswood Blvd. (3)	Horseman Rd. to Candler Dr.	\$ 1,061,000
F-4	P6D	Western Center Blvd. (1)	Blue Mound Rd. (FM 156) to 410' E. of FM 156	\$ 636,000
F-5	P6D (1/3)	Western Center Blvd. (2)	410' E. of FM 156 to Mark IV Pkwy	\$ 974,000
F-6	P6D (1/6)	Western Center Blvd. (3)	Sandshell Blvd. to Riverside Dr.	\$ 304,000
F-7	P6D (1/3)	Western Center Blvd. (4)	Riverside Dr. to 980' E. of Riverside Dr.	\$ 364,000
F-8	P6D (1/3)	Western Center Blvd. (5)	605' W. of Bayberry Dr. to Beach St.	\$ 1,208,000
F-9	MA4D-B	Cantrell Sansom Rd. (1)	455' W of Nafex Way to 145' W of Maiden Ln.	\$ 1,748,000
F-10	MA4D-B (1/2)	Cantrell Sansom Rd. (2)	145' W of Maiden Ln. to 190 E. of Deerfoot Trl.	\$ 760,000
F-11	MA4D-B (1/2)	Cantrell Sansom Rd. (3)	195' W. of Lionfish Way to Mark IV Pkwy.	\$ 481,000
F-12	MA4D-B	Cantrell Sansom Rd. (4)	Mark IV Pkwy. to Old Denton Rd.	\$ 1,941,000
F-13	MA4D-B	Cantrell Sansom Rd. (5)	Old Denton Rd. to Future IH-35W SBFR	\$ 1,059,000
F-14	M4U	Northeast Pkwy.	Superior Pkwy. to Mark IV Pkwy.	\$ 1,232,000
F-15	MA4D-B (1/2)	Meacham Blvd. (1)	315' E. of Blue Mound Rd. to RR Bridge	\$ 1,693,000
F-16	P6D-B (1/2)	Meacham Blvd. (2)	Deen Rd. to 590' W of Gemini PI.	\$ 2,520,000
F-17	P6D (1/3)	Meacham Blvd. (3)	Little Fossil Creek Bridge to Beach St.	\$ 1,741,000
F-18	MA4D-B	Long Ave Bridge	700' W. of UP RR to Half Moon Dr.	\$ 5,430,000
F-19	MA4D-B	Robert W. Downing Dr. (1)	Basswood Blvd. to 1,245' N. of Lou Menk Dr.	\$ 1,045,000
F-20	MA4D-B (1/2)	Robert W. Downing Dr. (2)	1,245' N. of Lou Menk Dr. to 230' N. of Lou Menk Dr.	\$ 702,000
F-21	M4U	Lone Star Blvd.	Existing Dead End to 800' N. of Meacham Blvd.	\$ 4,211,000
F-22	MA4D-B (1/2)	Mark IV Pkwy.	Cantrell Sansom Rd. to Loop 820 WBFR	\$ 2,144,000
F-23	M4U (1/2)	Old Denton Rd.	Staybridge Pl. to Cantrell Sansom Rd.	\$ 1,625,000
F-24	M4U	Sylvania Ave.	150' of Melody Hills Dr. to Quorum Dr.	\$ 1,580,000
F-25	MA4D-B	Riverside Dr. Bridge	Stone Creek Pkwy. to Existing Riverside Dr.	\$ 6,000,000
F-26	P6D (1/3)	N. Beach St. (14)	Fossil Creek to Sandshell Blvd.	\$ 1,104,000

TOTAL \$ 48,275,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Item Cost

Project Information:

Name:

Basswood Blvd. (1)

Limits:

Blue Mound Rd. (FM 156) to 960' E. of FM 156

Impact Fee Class:

Ultimate Class:

Ultimate Class:

Description:

Project No. C-11, F-1

This project consists of the widening of a two-lane undivided concrete facility into a four-lane divided major arterial.

Quantity Unit Unit Price

Length (If): 960 Service Area(s): C, F

No. Item Description

110.	item bescription		Quantity		0::			item cost
111	Unclassified Street Excavation	•	2,240	су	\$	10.50	\$	23,520
211	6" Lime Stabilization (with Lime @ 3	2#/sy)	3,307	sy	\$	3.00	\$	9,920
311	11" Concrete Pavement		3,093	sy	\$	44.00	\$	136,107
411	6" Curb & Gutter		2,880	lf	\$	6.50	\$	18,720
511	4" Topsoil		3,467	sy	\$	5.00	\$	17,333
611	4' Concrete Sidewalk		3,840	sf	\$	5.00	\$	19,200
701	Turn Lanes and Median Openings		694	sy	\$	44.00	\$	30,536
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	255,336
Majo	or Construction Component Allowa	ances:	_	-		_		
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	7,660
	Traffic Control	Construction Phase	Traffic Control			3%	\$	7,660
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	10,213
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	76,601
	Illumination					11%	\$	28,753
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	15,320
	Sewer	Minor Adjustments				4%		10,213
$\sqrt{}$	Establish Turf / Erosion Control					3%		7,660
	Basic Landscaping					3%	\$	7,660
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	_	-
				Allowa	ince S	Subtotal:	\$	171,741
			Paving and			Subtotal:	\$	427,077
		Constru	uction Conti			15%		64,062
i	Construction Cost TOTAL:						\$	492,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 492,000
Engineering/Survey/Testing:		20%	\$ 98,400
Mobilization		5%	\$ 24,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 49,200
	Impact Fee Pro	oject Cost TOTAL:	\$ 664,000

**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.

**Project Information:** 

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Description: Project No. C-12, F-2

Name: Basswood Blvd. (2) This project consists of the

Limits: 960' E. of FM 156 to Horseman Rd. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.
Ultimate Class: Major Arterial

Ultimate Class: Major Arterial
Length (If): 3,825
Service Area(s): C, F

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	17,425	су	\$	10.50	\$ 182,963
209	6" Lime Stabilization (with Lime @ 32#/sy)	26,350	sy	\$	3.00	\$ 79,050
309	11" Concrete Pavement	24,650	sy	\$	44.00	\$ 1,084,600
409	6" Curb & Gutter	15,300	lf	\$	6.50	\$ 99,450
509	4" Topsoil	18,275	sy	\$	5.00	\$ 91,375
609	4' Concrete Sidewalk	30,600	sf	\$	5.00	\$ 153,000
701	Turn Lanes and Median Openings	2,765	sy	\$	44.00	\$ 121,667
	P	aving Constr	uction (	net !	Subtotal:	\$ 1 812 104

Paving Construction Cost Subtotal: \$ 1,812,104

Majo	or Construction Component Allow	ances:			
	Item Description	Notes	Allowance		Item Cost
	Prep ROW		3%	\$	54,363
	Traffic Control	None Anticipated	0%	\$	-
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	72,484
	Roadway Drainage	Standard Internal System	30%	\$	543,631
	Illumination		11%	\$	204,056
	Special Drainage Structures	Major Stream Crossing	\$ 500,000	\$	500,000
	Water	Minor Adjustments	6%	\$	108,726
	Sewer	Minor Adjustments	4%	\$	72,484
	Establish Turf / Erosion Control		3%	\$	54,363
	Basic Landscaping		3%	\$	54,363
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000
	Other:		\$0	\$	-
		Allowa	ance Subtotal:	\$	1,814,472
		Paving and Allow		\$	3,626,576
	Construction Contingency: 15%				
		Construction C	ost TOTAL:	\$	4,171,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,171,000
Engineering/Survey/Testing:		20%	\$ 834,200
Mobilization		5%	\$ 208,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 834,200
	Impact Fee Project	t Cost TOTAL:	\$ 6,048,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Description:

Project No.

C-13, F-3

Name:

Basswood Blvd. (3)

This project consists of the widening of a two-lane
Limits:

Horseman Rd. to Candler Dr.

Impact Fee Class:

MA4D-B (1/2)

MA4D-B (1/2)

Description:

Project No.

C-13, F-3

This project consists of the widening of a two-lane
undivided concrete facility into a four-lane divided
major arterial.

Ultimate Class: Major Arterial

Length (If): 1,535 Service Area(s): C, F

dway Construction Cost Projection						
Item Description	Quantity	Unit	Uni	it Price		Item Cost
Unclassified Street Excavation	3,582	су	\$	10.50	\$	37,608
6" Lime Stabilization (with Lime @ 32#/sy)	5,287	sy	\$	3.00	\$	15,862
11" Concrete Pavement	4,946	sy	\$	44.00	\$	217,629
6" Curb & Gutter	4,605	lf	\$	6.50	\$	29,933
4" Topsoil	5,543	sy	\$	5.00	\$	27,715
4' Concrete Sidewalk	6,140	sf	\$	5.00	\$	30,700
Turn Lanes and Median Openings	1,110	sy	\$	44.00	\$	48,826
	Item Description Unclassified Street Excavation 6" Lime Stabilization (with Lime @ 32#/sy) 11" Concrete Pavement 6" Curb & Gutter 4" Topsoil 4' Concrete Sidewalk Turn Lanes and Median Openings	Item DescriptionQuantityUnclassified Street Excavation3,5826" Lime Stabilization (with Lime @ 32#/sy)5,28711" Concrete Pavement4,9466" Curb & Gutter4,6054" Topsoil5,5434' Concrete Sidewalk6,140	Item Description         Quantity         Unit           Unclassified Street Excavation         3,582         cy           6" Lime Stabilization (with Lime @ 32#/sy)         5,287         sy           11" Concrete Pavement         4,946         sy           6" Curb & Gutter         4,605         If           4" Topsoil         5,543         sy           4' Concrete Sidewalk         6,140         sf           Turn Lanes and Median Openings         1,110         sy	Item Description         Quantity         Unit         Unit           Unclassified Street Excavation         3,582         cy         \$           6" Lime Stabilization (with Lime @ 32#/sy)         5,287         sy         \$           11" Concrete Pavement         4,946         sy         \$           6" Curb & Gutter         4,605         If         \$           4" Topsoil         5,543         sy         \$           4' Concrete Sidewalk         6,140         sf         \$           Turn Lanes and Median Openings         1,110         sy         \$	Item Description         Quantity         Unit         Unit Price           Unclassified Street Excavation         3,582         cy         \$ 10.50           6" Lime Stabilization (with Lime @ 32#/sy)         5,287         sy         \$ 3.00           11" Concrete Pavement         4,946         sy         \$ 44.00           6" Curb & Gutter         4,605         If         \$ 6.50           4" Topsoil         5,543         sy         \$ 5.00           4' Concrete Sidewalk         6,140         sf         \$ 5.00           Turn Lanes and Median Openings         1,110         sy         \$ 44.00	Item Description         Quantity         Unit         Unit Price           Unclassified Street Excavation         3,582         cy         \$ 10.50         \$           6" Lime Stabilization (with Lime @ 32#/sy)         5,287         sy         \$ 3.00         \$           11" Concrete Pavement         4,946         sy         \$ 44.00         \$           6" Curb & Gutter         4,605         If         \$ 6.50         \$           4" Topsoil         5,543         sy         \$ 5.00         \$           4' Concrete Sidewalk         6,140         sf         \$ 5.00         \$           Turn Lanes and Median Openings         1,110         sy         \$ 44.00         \$

Paving Construction Cost Subtotal: \$ 408,272

Mai	or Construction Component Allow	ances:			
	Item Description	Notes	Allowance		Item Cost
	Prep ROW		3%	\$	12,248
$\checkmark$	Traffic Control	Construction Phase Traffic Control	3%	\$	12,248
$\checkmark$	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	16,331
$\checkmark$	Roadway Drainage	Standard Internal System	30%	\$	122,481
$\checkmark$	Illumination		11%	\$	45,974
	Special Drainage Structures	None Anticipated	\$ -	\$	-
$\checkmark$	Water	Minor Adjustments	6%	\$	24,496
$\checkmark$	Sewer	Minor Adjustments	4%	\$	16,331
$\checkmark$	Establish Turf / Erosion Control		3%	\$	12,248
$\checkmark$	Basic Landscaping		3%	\$	12,248
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
	Other:		\$0	\$	-
		Allowa	ınce Subtotal:	\$	274,606
		Paving and Allowa		\$	682,878
	Construction Contingency: 15%				
		Construction C	ost 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:	Existing Alignment	10%	\$	78,600			
	\$	1,061,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information: Description: Project No. F-4
Name: Western Center Blvd. (1) This project consists of the

Limits: Blue Mound Rd. (FM 156) to 410' E. of FM 156

Impact Fee Class: P6D

Ultimate Class: Principal Arterial

Length (If): 410
Service Area(s): F

reconstruction of a two-lane undivided asphalt facility into a six-lane divided

principal arterial.

No.	Item Description	•	Quantity	Unit	Un	it Price		Item Cost
112	Unclassified Street Excavation		2,506	су	\$	10.50	\$	26,308
212	2 6" Lime Stabilization (with Lime @ 32#/sy) 3,827 sy			\$	3.00	\$	11,480	
312	11" Concrete Pavement		3,644	sy	\$	44.00	\$	160,356
412	6" Curb & Gutter		1,640	lf	\$	6.50	\$	10,660
512	4" Topsoil		1,868	sy	\$	5.00	\$	9,339
612	4' Concrete Sidewalk		3,280	sf	\$	5.00	\$	16,400
701	Turn Lanes and Median Openings		296	sy	\$	44.00	\$	13,041
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	247,584
Maio	or Construction Component Allowa	ances.						
waje	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	7,428
	Traffic Control	Construction Phase	Traffic Control			3%	\$	7,428
	Pavement Markings/Markers					2%	\$	5,315
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	74,275
	Illumination					11%	\$	27,880
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	14,855
	Sewer	Minor Adjustments				4%	\$	9,903
	Establish Turf / Erosion Control					3%	\$	7,428
	Basic Landscaping					3%	\$	7,428
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:	\$0				\$	-	
	Allowance Subtotal:							161,938
	Paving and Allowance Subtotal:							409,523
		Constri	raving and uction Conti	ndenca. n Wiloma	ince s	15%		<b>409,523</b> 61,428
		Constitu	Construc				-	471,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	471,000			
Engineering/Survey/Testing:		20%	\$	94,200			
Mobilization		5%	\$	23,550			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	47,100			
	\$	636,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Western Center Blvd. (2)
Limits:
Description:
Project No.
F-5
This project consists of the construction of two additional through lanes within the existing median.

Impact Fee Class: P6D (1/3)
Ultimate Class: Principal Arterial

Length (If): 2,625 Service Area(s): F

No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
114	Unclassified Street Excavation		8,167	су	\$	10.50	\$ 85,750
214	6" Lime Stabilization (with Lime @ 3	32#/sy)	7,875	sy	\$	3.00	\$ 23,625
314	11" Concrete Pavement		7,292	sy	\$	44.00	\$ 320,833
414	6" Curb & Gutter		5,250	lf	\$	6.50	\$ 34,125
514	4" Topsoil		8,167	sy	\$	5.00	\$ 40,833
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$ -
701	Turn Lanes and Median Openings		1,898	sy	\$	44.00	\$ 83,497
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 588,664
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			Alle	owance	Item Cost
√.	Prep ROW					3%	17,660
	Traffic Control	Construction Phase	Traffic Control			3%	17,660
V	Pavement Markings/Markers					3%	17,660
	Roadway Drainage	None Anticipated				0%	-
	Illumination	None Anticipated				0%	\$ -
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	None Anticipated				0%	-
l .	Sewer	None Anticipated				0%	-
V	Establish Turf / Erosion Control					3%	17,660
V	Basic Landscaping					3%	17,660
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	-
	Other:					\$0	 -
Allowance Subtotal:							\$ 88,300
Paving and Allowance Subtotal:							676,963
I		Constru	uction Conti			15%	101,544
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:	No ROW Acquisition Costs included	0%	\$	-			
	\$	974,000					

**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.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Western Center Blvd. (3)

Limits:

Description:

Project No.

F-6

This project consists of the construction of one additional through lane within the existing median.

Impact Fee Class: P6D (1/6)
Ultimate Class: Principal Arterial

Length (If): 1,435 Service Area(s): F

No.	No.   Item Description   Quantity   Unit			Un	it Price		Item Cost	
119	Unclassified Street Excavation		2,232	су	\$	10.50	\$	23,438
219	6" Lime Stabilization (with Lime @ 3	32#/sy)	2,153	sy	\$	3.00	\$	6,458
319	11" Concrete Pavement		1,993	sy	\$	44.00	\$	87,694
419	6" Curb & Gutter		1,435	lf	\$	6.50	\$	9,328
519	4" Topsoil		2,232	sy	\$	5.00	\$	11,161
619	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		1,037	sy	\$	44.00	\$	45,645
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	183,724
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
√,	Prep ROW					3%		5,512
٧,	Traffic Control	Construction Phase	Traffic Control			3%		5,512
√	Pavement Markings/Markers					3%		5,512
	Roadway Drainage	None Anticipated				0%		-
	Illumination	None Anticipated				0%	\$	-
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	None Anticipated				0%		-
,	Sewer	None Anticipated				0%	-	-
٧,	Establish Turf / Erosion Control					3%		5,512
1	Basic Landscaping					3%		5,512
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0		
	Allowance Subtotal:							27,559
							_	
	Paving and Allowance Subtotal:							211,282
	Construction Contingency: 15%						\$	31,692

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	243,000			
Engineering/Survey/Testing:		20%	\$	48,600			
Mobilization		5%	\$	12,150			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-			
	\$	304,000					

Construction Cost TOTAL: \$

**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.

243,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. F-7

Name: Western Center Blvd. (4) This project consists of the Limits: Riverside Dr. to 980' E. of Riverside Dr. construction of two additional construction of two additional construction of two additional constructions.

Limits: Riverside Dr. to 980' E. of Riverside Dr. construction of two additional through lanes within the existing median.

Ultimate Class: Principal Arterial

Length (If): 980 Service Area(s): F

Roa	adway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
114	Unclassified Street Excavation		3,049	су	\$	10.50	\$	32,013
214	6" Lime Stabilization (with Lime @ 3	32#/sy)	2,940	sy	\$	3.00	\$	8,820
314	11" Concrete Pavement		2,722	sy	\$	44.00	\$	119,778
414	6" Curb & Gutter		1,960	lf	\$	6.50	\$	12,740
514	4" Topsoil		3,049	sy	\$	5.00	\$	15,244
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		708	sy	\$	44.00	\$	31,172
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	219,768
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
V	Prep ROW		•			3%	\$	6,593
$\checkmark$	Traffic Control	Construction Phase	Traffic Control			3%	\$	6,593
4	Dayonant Markinga/Markara					20/	Φ	6 502

Rem Beschiption	110100	Allowalloc		110111 0001	
 Prep ROW		3%	\$	6,593	
 Traffic Control	Construction Phase Traffic Control	3%	\$	6,593	
 Pavement Markings/Markers		3%	\$	6,593	
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		3%	\$	6,593	
 Basic Landscaping		3%	\$	6,593	
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
Other:		\$0	\$	-	
	Allowa	ince Subtotal:	\$	32,965	
Paving and Allowance Subtotal:					
Construction Contingency: 15%					
	Construction C	ost TOTAL:	\$	291,000	

Impact Fee Project Cost Sun Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 291,000
Engineering/Survey/Testing:		20%	\$ 58,200
Mobilization		5%	\$ 14,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 364,000		

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 F-8

 Name:
 Western Center Blvd. (5)
 This project consists of the construction of two additional through lanes within the existing median.

 Limits:
 605' W. of Bayberry Dr. to Beach St.
 additional through lanes within the existing median.

Impact Fee Class: P6D (1/3)
Ultimate Class: Principal Arterial

Length (If): 3,255 Service Area(s): F

	Item Description	•	Quantity	Unit	Un	it Price	Item Cost
114	Unclassified Street Excavation		10,127	су	\$	10.50	\$ 106,330
214	6" Lime Stabilization (with Lime @ 3	2#/sy)	9,765	sy	\$	3.00	\$ 29,295
314	11" Concrete Pavement		9,042	sy	\$	44.00	\$ 397,833
414	6" Curb & Gutter		6,510	lf	\$	6.50	\$ 42,315
514	4" Topsoil		10,127	sy	\$	5.00	\$ 50,633
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$ -
701	Turn Lanes and Median Openings		2,353	sy	\$	44.00	\$ 103,536
		Pa	aving Const	ruction C	Cost S	Subtotal:	\$ 729,943
Maio	or Construction Component Allowa	ances:	_	_		_	_
	Item Description	Notes			Alle	owance	Item Cost
√	Prep ROW					3%	\$ 21,898
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 21,898
	Pavement Markings/Markers					3%	\$ 21,898
	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					3%	\$ 21,898
	Basic Landscaping					3%	\$ 21,898
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	\$ -
Allowance Subtotal:							\$ 109,491
Paving and Allowance Subtotal:							\$ 839,434
						15%	\$ 125,915
	Construction Cost TOTAL:						\$ 966,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	966,000			
Engineering/Survey/Testing:		20%	\$	193,200			
Mobilization		5%	\$	48,300			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-			
	\$	1,208,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. F-9
Name: Cantrell Sansom Rd. (1) This project consists of the

Limits: 455' W of Nafex Way to 145' W of Maiden Ln.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial

Length (If): 1,105 Service Area(s): F reconstruction of a two-lane undivided asphalt facility into a four-lane divided

major arterial.

No.	No.   Item Description   Quantity   Unit   Unit Price				Item Cost		
109	Unclassified Street Excavation		5,034	су	\$	10.50	\$ 52,856
209	6" Lime Stabilization (with Lime @ 3	2#/sy) 7,612 sy			\$	3.00	\$ 22,837
309	11" Concrete Pavement		7,121	sy	\$	44.00	\$ 313,329
409	6" Curb & Gutter		4,420	lf	\$	6.50	\$ 28,730
509	4" Topsoil		5,279	sy	\$	5.00	\$ 26,397
609	4' Concrete Sidewalk		8,840	sf	\$	5.00	\$ 44,200
701	Turn Lanes and Median Openings		799	sy	\$	44.00	\$ 35,148
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 523,497
Majo	or Construction Component Allowa						
	Item Description	Notes			All	owance	Item Cost
√,	Prep ROW					3%	15,705
√,	Traffic Control	Construction Phase	Traffic Control			3%	15,705
√,	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 20,940
√,	Roadway Drainage	Standard Internal Sys	stem			30%	157,049
√.	Illumination					11%	\$ 58,950
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$ 250,000
$\sqrt{}$	Water	Minor Adjustments				6%	\$ 31,410
$\sqrt{}$	Sewer	Minor Adjustments				4%	\$ 20,940
	Establish Turf / Erosion Control					3%	\$ 15,705
	Basic Landscaping					3%	\$ 15,705
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	-
Allowance Subtotal:						\$ 602,108	
		_	Paving an				1,125,605
		Constru	uction Conti	-		15%	\$ 168,841
			Construc	ction C	ost	TOTAL:	\$ 1,295,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,295,000				
Engineering/Survey/Testing:		20%	\$	259,000				
Mobilization		5%	\$	64,750				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	129,500				
	\$	1,748,000						

**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.

Service Area(s):

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

F

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: F-10 Project No. Name: Cantrell Sansom Rd. (2) This project consists of the widening of Limits: 145' W of Maiden Ln. to 190 E. of Deerfoot Trl. a two-lane undivided concrete facility Impact Fee Class: MA4D-B (1/2) into a four-lane divided major arterial. **Ultimate Class:** Major Arterial Length (If): 1,100

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Uni	it Price	Item Cost
111	Unclassified Street Excavation	2,567	су	\$	10.50	\$ 26,950
211	6" Lime Stabilization (with Lime @ 32#/sy)	3,789	sy	\$	3.00	\$ 11,367
311	11" Concrete Pavement	3,544	sy	\$	44.00	\$ 155,956
411	6" Curb & Gutter	3,300	lf	\$	6.50	\$ 21,450
511	4" Topsoil	3,972	sy	\$	5.00	\$ 19,861
611	4' Concrete Sidewalk	4,400	sf	\$	5.00	\$ 22,000
701	Turn Lanes and Median Openings	795	sy	\$	44.00	\$ 34,989

Paving Construction Cost Subtotal: \$ 292,573

Major Construction Component Allow	vances:	_	
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 8,777
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 8,777
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 11,703
√ Roadway Drainage	Standard Internal System	30%	\$ 87,772
√ Illumination		11%	\$ 32,946
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 17,554
√ Sewer	Minor Adjustments	4%	\$ 11,703
√ Establish Turf / Erosion Control		3%	\$ 8,777
√ Basic Landscaping		3%	\$ 8,777
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	ance Subtotal:	\$ 196,786
	Paving and Allowa		\$ 489,359
	Construction Contingency:		73,404
	Construction C	ost TOTAL:	\$ 563,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	563,000				
Engineering/Survey/Testing:		20%	\$	112,600				
Mobilization		5%	\$	28,150				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	56,300				
	\$	760,000						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Cantrell Sansom Rd. (3)
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:
This project consists of the widening of a two-lane undivided concrete facility into a four-lane divided major arterial.

Length (If): 695 Service Area(s): F

No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		1,622	су	\$	10.50	\$	17,028
211	6" Lime Stabilization (with Lime @ 32	2#/sy) 2,394 sy			\$	3.00	\$	7,182
311	11" Concrete Pavement		2,239	sy	\$	44.00	\$	98,536
411	6" Curb & Gutter		2,085	lf	\$	6.50	\$	13,553
511	4" Topsoil		2,510	sy	\$	5.00	\$	12,549
611	4' Concrete Sidewalk		2,780	sf	\$	5.00	\$	13,900
701	Turn Lanes and Median Openings		502	sy	\$	44.00	\$	22,107
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	184,853
Maio	or Construction Component Allowa	nces:	_	_	-	_		
maje	Item Description	Notes			Alle	owance	П	Item Cost
	Prep ROW					3%	\$	5,546
$\checkmark$	Traffic Control	Construction Phase	Traffic Control			3%	\$	5,546
$\checkmark$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	7,394
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	55,456
$\checkmark$	Illumination					11%	\$	20,816
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\checkmark$	Water	Minor Adjustments				6%	\$	11,091
$\checkmark$	Sewer	Minor Adjustments				4%	\$	7,394
	Establish Turf / Erosion Control					3%		5,546
	Basic Landscaping					3%		5,546
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0		-
				Allowa	nce S	Subtotal:	\$	124,333
						•	200.400	
Paving and Allowance Subtotal: Construction Contingency: 15%							309,186	
		Constru				15%		46,378
			Constru	ction C	ost	IUIAL:	\$	356,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	356,000				
Engineering/Survey/Testing:		20%	\$	71,200				
Mobilization		5%	\$	17,800				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	35,600				
	\$	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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. F-12 Name: Cantrell Sansom Rd. (4) This project consists of the reconstruction of a two-Limits: Mark IV Pkwy. to Old Denton Rd. lane undivided asphalt facility into a four-lane Impact Fee Class: MA4D-B divided major arterial.

Ultimate Class: Major Arterial Length (If): 1,680

Service Area(s): F

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	7,653	су	\$	10.50	\$ 80,360
209	6" Lime Stabilization (with Lime @ 32#/sy)	11,573	sy	\$	3.00	\$ 34,720
309	11" Concrete Pavement	10,827	sy	\$	44.00	\$ 476,373
409	6" Curb & Gutter	6,720	lf	\$	6.50	\$ 43,680
509	4" Topsoil	8,027	sy	\$	5.00	\$ 40,133
609	4' Concrete Sidewalk	13,440	sf	\$	5.00	\$ 67,200
701	Turn Lanes and Median Openings	1,215	sy	\$	44.00	\$ 53,438
	P	aving Constr	uction (	Cost S	Subtotal:	\$ 795,905

Major						
lt	tem Description	Notes	Allowance		Item Cost	
√ P	Prep ROW		3%	\$	23,877	
√ T	raffic Control	Construction Phase Traffic Control	3%	\$	23,877	
√ P	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	31,836	
√ R	Roadway Drainage	Standard Internal System	30%	\$	238,771	
√ III	lumination		11%	\$	89,625	
S	Special Drainage Structures	None Anticipated	\$ -	\$	-	
√ V	Vater	Minor Adjustments	6%	\$	47,754	
√ S	Sewer	Minor Adjustments	4%	\$	31,836	
√ E	Establish Turf / Erosion Control		3%	\$	23,877	
√ B	Basic Landscaping		3%	\$	23,877	
In	ntersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
С	Other:		\$0	\$	-	
		Allowa	ınce Subtotal:	\$	535,331	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	199,685	
		Construction C	ost TOTAL:	\$	1,531,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,531,000			
Engineering/Survey/Testing:		20%	\$	306,200			
Mobilization		5%	\$	76,550			
Previous City contribution			\$	-			
Other	CFA# 200223 & 20173		\$	(125,520)			
ROW/Easement Acquisition:	Existing Alignment	10%	\$	153,100			
	\$	1,941,000					

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. F-13 Name: Cantrell Sansom Rd. (5)

This project consists of the Limits: Old Denton Rd. to Future IH-35W SBFR construction of a new four-lane divided

Impact Fee Class: MA4D-B

major arterial. **Ultimate Class:** Major Arterial

Length (If): 815 Service Area(s): F

Roa	dway Construction Cost Proj	ection					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation		3,713	су	\$	10.50	\$ 38,984
209	6" Lime Stabilization (with Lime @ 32	#/sy)	5,614	sy	\$	3.00	\$ 16,843
309	11" Concrete Pavement		5,252	sy	\$	44.00	\$ 231,098
409	6" Curb & Gutter		3,260	lf	\$	6.50	\$ 21,190
509	4" Topsoil		3,894	sy	\$	5.00	\$ 19,469
609	4' Concrete Sidewalk		6,520	sf	\$	5.00	\$ 32,600
701	Turn Lanes and Median Openings		589	sy	\$	44.00	\$ 25,924
		Pa	ving Consti	ruction (	Cost S	Subtotal:	\$ 386,109
Majo	or Construction Component Allowar	nces:					
	Item Description	Notes			Alle	owance	Item Cost
1	Prep ROW		_			3%	\$ 11,583
	Traffic Control	None Anticipated				0%	\$ -

Item Description	Notes	Allowance		Item Cost		
 Prep ROW		3%	\$	11,583		
Traffic Control	None Anticipated	0%	\$	-		
 Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	15,444		
 Roadway Drainage	Standard Internal System	30%	\$	115,833		
 Illumination		11%	\$	43,479		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
 Water	Minor Adjustments	6%	\$	23,167		
 Sewer	Minor Adjustments	4%		15,444		
 Establish Turf / Erosion Control		3%	\$	11,583		
 Basic Landscaping		3%		11,583		
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
Other:		\$0	\$	-		
	Allowa	ınce Subtotal:	\$	248,116		
Paving and Allowance Subtotal:						
	Construction Contingency:	15%	\$	95,134		
Construction Cost TOTAL:						

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	730,000			
Engineering/Survey/Testing:		20%	\$	146,000			
Mobilization		5%	\$	36,500			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	146,000			
	\$	1,059,000					

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. F-14

Name: Northeast Pkwy. This project consists of the construction of a new

Limits: Superior Pkwy. to Mark IV Pkwy. four-lane undivided minor arterial.

Impact Fee Class: M4U
Ultimate Class: Minor Arterial
Length (If): 1,075

Intersections (Signal, Roundabout, etc.)

Other:

Service Area(s): F

Roa	adway Construction Cost Pro	jection					
No.	Item Description		Quantity	Unit	U	nit Price	Item Cost
106	Unclassified Street Excavation		3,464	су	\$	10.50	\$ 36,371
206	6" Lime Stabilization (with Lime @ 3	32#/sy)	6,808	sy	\$	3.00	\$ 20,425
306	9" Concrete Pavement		6,569	sy	\$	36.00	\$ 236,500
406	6" Curb & Gutter		2,150	lf	\$	6.50	\$ 13,975
506	4" Topsoil		1,792	sy	\$	5.00	\$ 8,958
606	4' Concrete Sidewalk		8,600	sf	\$	5.00	\$ 43,000
701	Turn Lanes and Median Openings		0				
		Pa	aving Constr	uction (	Cost	Subtotal:	\$ 359,229
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			Al	lowance	Item Cost
V	Prep ROW					3%	\$ 10,777
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers					2%	\$ 7,712
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 107,769
	Illumination					11%	\$ 40,452
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$ 250,000
	Water	Minor Adjustments				6%	\$ 21,554
	Sewer	Minor Adjustments				4%	\$ 14,369
	Establish Turf / Erosion Control					3%	\$ 10,777

	Paving and Allowa Construction Contingency:		125.012
	Construction Co		- , -
manat Foo Brainst Cost Summery			

None Anticipated

Impact Fee Project Cost Sun	Hama Oaat		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 959,000
Engineering/Survey/Testing:		20%	\$ 191,800
Mobilization		5%	\$ 47,950
Previous City contribution			\$ -
Other	CFA# 20010 & 2007042		\$ (158,872)
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 191,800
	\$ 1,232,000		

**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.

\$

474,186

Allowance Subtotal:

**Project Information:** 

Name:

Limits:

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Meacham Blvd. (1)

Kimley-Horn and Associates, Inc. 10/2/2012 updated:

Description: F-15 Project No. This project consists of the widening of 315' E. of Blue Mound Rd. to RR Bridge a three-lane undivided concrete facility

into a four-lane divided major arterial.

Impact Fee Class: MA4D-B (1/2) **Ultimate Class:** Major Arterial

Length (If): 2,450 Service Area(s):

No.	Item Description	•	Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		5,717	су	\$	10.50	\$	60,025
211	6" Lime Stabilization (with Lime @ 3	32#/sy)	8,439	sy	\$	3.00	\$	25,317
311	11" Concrete Pavement		7,894	sy	\$	44.00	\$	347,356
411	6" Curb & Gutter		7,350	lf	\$	6.50	\$	47,775
511	4" Topsoil		8,847	sy	\$	5.00	\$	44,236
611	4' Concrete Sidewalk		9,800	sf	\$	5.00	\$	49,000
701	Turn Lanes and Median Openings		1,771	sy	\$	44.00	\$	77,930
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	651,639
Mai	Comptensedion Commence and Allow				_		_	
Majo	or Construction Component Allow Item Description	Notes			ΔΙΙ	owance		Item Cost
V	Prep ROW	110103			Aii	3%	\$	19.549
Ì	Traffic Control	Construction Phase	Traffic Control			3%	-	19,549
Ì	Pavement Markings/Markers	Pavement Markings				4%		26,066
Ì	Roadway Drainage	Standard Internal Sy				30%		195,492
Ì	Illumination	Standard internal by	310111			11%		73,379
	Special Drainage Structures	None Anticipated			\$	-	\$	
V	Water	Minor Adjustments			*	6%		39,098
Ì	Sewer	Minor Adjustments				4%		26,066
Ì	Establish Turf / Erosion Control	i i i i i i i i i i i i i i i i i i i				3%		19,549
Ż	Basic Landscaping					3%		19,549
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:	\$0				-		
	Allowance Subtotal:							438,297
			Daving on	al Allanna		Nubtatal.	•	1 000 020
		Comoter	Paving an			15%		<b>1,089,936</b> 163,490
1		Constru	uction Conti	ngency.		15%	Φ	163,490

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,254,000			
Engineering/Survey/Testing:		20%	\$	250,800			
Mobilization		5%	\$	62,700			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	125,400			
	\$	1,693,000					

**Construction Cost TOTA** 

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.

1,254,000

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Limits:

Description:

Description:

Description:

Project No.

F-16

This project consists of the widening of a two-lane undivided concrete facility into a six-lane divided principal arterial.

Ultimate Class: Principal Arterial

Length (If): 2,695 Service Area(s): F

Roa	adway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost	
116	Unclassified Street Excavation	8,534	су	\$	10.50	\$	89,609	
216	6" Lime Stabilization (with Lime @ 32#/sy)	12,577	sy	\$	3.00	\$	37,730	
316	11" Concrete Pavement	11,978	sy	\$	44.00	\$	527,022	
416	6" Curb & Gutter	5,390	lf	\$	6.50	\$	35,035	
516	4" Topsoil	10,331	sy	\$	5.00	\$	51,654	
616	4' Concrete Sidewalk	10,780	sf	\$	5.00	\$	53,900	
701	Turn Lanes and Median Openings	1,948	sy	\$	44.00	\$	85,723	
	D ' O / (' O / O I / I A O O O O O O O O O O O O O O O O O O							

Paving Construction Cost Subtotal: \$880,674

Major Construction Component Allow	vances:	_	_
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 26,420
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 26,420
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 35,227
√ Roadway Drainage	Standard Internal System	30%	\$ 264,202
$\sqrt{}$ Illumination		11%	\$ 99,170
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 52,840
√ Sewer	Minor Adjustments	4%	\$ 35,227
√ Establish Turf / Erosion Control		3%	\$ 26,420
√ Basic Landscaping		3%	\$ 26,420
Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:		\$0	\$ -
	Allow	ance Subtotal:	\$ 742,347
	\$ 1,623,021		
	\$ 243,453		
	Construction C	Cost TOTAL:	\$ 1,867,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,867,000			
Engineering/Survey/Testing:		20%	\$	373,400			
Mobilization		5%	\$	93,350			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	186,700			
	\$	2,520,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

Project Information:

Description:

Project No.

F-17

Name:

Meacham Blvd. (3)

Little Fossil Creek Bridge to Beach St. additional through lanes within the existing median.

Quantity

Unit

Impact Fee Class: P6D (1/3)
Ultimate Class: Principal Arterial

Length (If): 4,695 Service Area(s): F

No. Item Description

114	4 Unclassified Street Excavation   14,607   cy					10.50	\$	153,370
214	6" Lime Stabilization (with Lime @ 3	2#/sy)	14,085	sy	\$	3.00	\$	42,255
314	11" Concrete Pavement		13,042	sy	\$	44.00	\$	573,833
414	6" Curb & Gutter		9,390	lf	\$	6.50	\$	61,035
514	4" Topsoil		14,607	sy	\$	5.00	\$	73,033
	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		3,394	sy	\$	44.00	\$	149,340
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,052,867
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	31,586
	Traffic Control	Construction Phase	Traffic Control			3%	\$	31,586
	Pavement Markings/Markers					3%	\$	31,586
	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					3%	\$	31,586
	Basic Landscaping					3%	\$	31,586
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
						\$0	\$	-
Allowance Subtotal:								157,930
Paving and Allowance Subtotal:								1,210,797
	Construction Contingency: 15%							181,620
			Constru	ction C	ost <sup>-</sup>	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:	No ROW Acquisition Costs included	0%	\$	-				
	\$	1,741,000						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Long Ave Bridge
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Description:
Project No.
F-18
This project consists of the construction of a new four-lane divided major arterial bridge over the railroad.

Length (If): 1,670
Service Area(s): F

Roa	dway Construction Cost Proje	ection					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation		7,608	су	\$	10.50	\$ 79,882
209	6" Lime Stabilization (with Lime @ 32#	#/sy)	11,504	sy	\$	3.00	\$ 34,513
309	11" Concrete Pavement		10,762	sy	\$	44.00	\$ 473,538
409	6" Curb & Gutter		6,680	lf	\$	6.50	\$ 43,420
509	4" Topsoil		7,979	sy	\$	5.00	\$ 39,894
609	4' Concrete Sidewalk		13,360	sf	\$	5.00	\$ 66,800
701	Turn Lanes and Median Openings		1,207	sy	\$	44.00	\$ 53,120
		Pa	ving Consti	ruction (	Cost	Subtotal:	\$ 791,167
Majo	or Construction Component Allowand	ces:					
	Item Description	Notes			All	owance	Item Cost

Major Construction Component Allowances:						
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	23,735	
	Traffic Control	Construction Phase Traffic Control	3%	\$	23,735	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	31,647	
	Roadway Drainage	Standard Internal System	30%	\$	237,350	
	Illumination		11%	\$	89,091	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	47,470	
	Sewer	Minor Adjustments	4%	\$	31,647	
	Establish Turf / Erosion Control		3%	\$	23,735	
	Basic Landscaping		3%	\$	23,735	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:	Railroad Bridge	\$2,500,000	\$	2,500,000	
	Allowance Subtotal:			\$	3,032,145	
Paving and Allowance Subtotal:				\$	3,823,312	
Construction Contingency: 15%			\$	198,497		
Construction Cost TOTAL:			\$	4,022,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	4,022,000			
Engineering/Survey/Testing:		20%	\$	804,400			
Mobilization		5%	\$	201,100			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	402,200			
Impact Fee Project Cost TOTAL:			\$	5,430,000			

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. F-19
Name: Robert W. Downing Dr. (1) This project consists of the

Limits: Basswood Blvd. to 1,245' N. of Lou Menk Dr. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 805 Service Area(s): F

Roa	Roadway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit Price		Item Cost	
109	Unclassified Street Excavation	3,667	су	\$	10.50	\$	38,506
209	6" Lime Stabilization (with Lime @ 32#/sy)	5,546	sy	\$	3.00	\$	16,637
309	11" Concrete Pavement	5,188	sy	\$	44.00	\$	228,262
409	6" Curb & Gutter	3,220	lf	\$	6.50	\$	20,930
509	4" Topsoil	3,846	sy	\$	5.00	\$	19,231
609	4' Concrete Sidewalk	6,440	sf	\$	5.00	\$	32,200
701	Turn Lanes and Median Openings	582	sy	\$	44.00	\$	25,606
Paving Construction Cost Subtotal:					\$	381,371	
		-					

Major Construction Component Allov Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 11,441
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 15,255
√ Roadway Drainage	Standard Internal System	30%	\$ 114,411
√ Illumination		11%	\$ 42,945
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 22,882
√ Sewer	Minor Adjustments	4%	\$ 15,255
√ Establish Turf / Erosion Control		3%	\$ 11,441
√ Basic Landscaping		3%	\$ 11,441
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	\$ 245,072		
Paving and Allowance Subtotal:			\$ 626,443
Construction Contingency: 15%			\$ 93,966
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:	New Roadway Alignment	20%	\$	144,200			
Impact Fee Project Cost TOTAL:			\$	1,045,000			

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: Project No. F-20 Name: Robert W. Downing Dr. (2) This project consists of the Limits: 1,245' N. of Lou Menk Dr. to 230' N. of Lou Menk Dr. widening of a two-lane Impact Fee Class: MA4D-B (1/2) undivided concrete facility into **Ultimate Class:** Major Arterial a four-lane divided major Length (If): 1,015 arterial. Service Area(s):

	adway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		2,368	су	\$	10.50	\$	24,868
211	6" Lime Stabilization (with Lime @ 32#/sy) 3,496 sy			\$	3.00	\$	10,488	
311	11" Concrete Pavement		3,271	sy	\$	44.00	\$	143,904
411	6" Curb & Gutter		3,045	lf	\$	6.50	\$	19,793
511	4" Topsoil		3,665	sy	\$	5.00	\$	18,326
611	4' Concrete Sidewalk		4,060	sf	\$	5.00	\$	20,300
701	Turn Lanes and Median Openings		734	sy	\$	44.00	\$	32,285
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	269,965
Majo	or Construction Component Allowa	inces:						
	Item Description	Notes			Alle	owance		Item Cost
1	Prep ROW					3%	\$	8,099
	Traffic Control	Construction Phase	Traffic Control			3%	\$	8,099
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	10,799
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem			30%	\$	80,989
	Illumination					11%	\$	30,400
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	16,198
	Sewer	Minor Adjustments				4%	\$	10,799
	Establish Turf / Erosion Control					3%	\$	8,099
	Basic Landscaping					3%	\$	8,099
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:	\$0			\$	-		
Allowance Subtotal:							\$	181,580
Paving and Allowance Subtotal:							\$	451,545
		Constru	uction Conti	ngency:		15%	\$	67,732
			Constru	ction C	ost 7	<b>TOTAL:</b>	\$	520,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 520,000
Engineering/Survey/Testing:		20%	\$ 104,000
Mobilization		5%	\$ 26,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 52,000
	\$ 702,000		

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Description: Project No. F-21

Name: Lone Star Blvd. This project consists of the

Name: Lone Star Blvd. This project consists of the Limits: Existing Dead End to 800' N. of Meacham Blvd. Construction of a new four-lane

Impact Fee Class: M4U undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 3,575 Service Area(s): F

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	11,519	су	\$	10.50	\$ 120,954
206	6" Lime Stabilization (with Lime @ 32#/sy)	22,642	sy	\$	3.00	\$ 67,925
306	9" Concrete Pavement	21,847	sy	\$	36.00	\$ 786,500
406	6" Curb & Gutter	7,150	lf	\$	6.50	\$ 46,475
506	4" Topsoil	5,958	sy	\$	5.00	\$ 29,792
606	4' Concrete Sidewalk	28,600	sf	\$	5.00	\$ 143,000
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 1,194,646

Majo	or Construction Component Allowa	ances:		
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 35,839
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers		2%	\$ 25,645
	Roadway Drainage	Standard Internal System	30%	\$ 358,394
	Illumination		11%	\$ 134,526
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 71,679
	Sewer	Minor Adjustments	4%	\$ 47,786
	Establish Turf / Erosion Control		3%	\$ 35,839
	Basic Landscaping		3%	\$ 35,839
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
	Other:	Two Railroad Crossings	\$500,000	\$ 500,000
		Allowa	nce Subtotal:	\$ 1,395,548
	\$ 2,590,193			
	\$ 313,529			
		Construction C	ost TOTAL:	\$ 2,904,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,904,000
Engineering/Survey/Testing:		20%	\$ 580,800
Mobilization		5%	\$ 145,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 580,800
	\$ 4,211,000		

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion: c	Description:	Project No. F-22
Name:	Mark IV Pkwy.		This project consists of the widening of
Limits:	Cantrell Sansom Rd. to Loop 820 WBFI	R	a two-lane undivided concrete facility
Impact Fee Class:	MA4D-B (1/2)		into a four-lane divided major arterial.
Ultimate Class:	Major Arterial		•
Length (If):	2,765		
Service Area(s):	F		

No.	No.   Item Description   Quantity   Unit   Unit Price			Item Cost			
111	Unclassified Street Excavation		6,452	су	\$	10.50	\$ 67,743
211	6" Lime Stabilization (with Lime @ 3	2#/sy)	9,524	sy	\$	3.00	\$ 28,572
311	11" Concrete Pavement		8,909	sy	\$	44.00	\$ 392,016
411	6" Curb & Gutter		8,295	lf	\$	6.50	\$ 53,918
511	4" Topsoil		9,985	sy	\$	5.00	\$ 49,924
611	4' Concrete Sidewalk		11,060	sf	\$	5.00	\$ 55,300
701	Turn Lanes and Median Openings		1,999	sy	\$	44.00	\$ 87,950
		Pa	ving Const	ruction (	Cost	Subtotal:	\$ 735,421
Majo	or Construction Component Allowa						
	Item Description	Notes			All	owance	Item Cost
	Prep ROW					3%	\$ 22,063
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 22,063
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 29,417
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 220,626
	Illumination					11%	\$ 82,814
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	44,125
	Sewer	Minor Adjustments				4%	29,417
	Establish Turf / Erosion Control					3%	\$ 22,063
	Basic Landscaping					3%	\$ 22,063
	Intersections (Signal, Roundabout, etc.)	Assume Improvemer	nt per Half Mile			\$150,000	\$ 150,000
	Other:	\$0			\$ -		
Allowance Subtotal:						\$ 644,649	
Paving and Allowance Subtotal:					1,380,070		
Construction Contingency: 15%					207,011		
Construction Cost TOTAL:					\$ 1,588,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,588,000			
Engineering/Survey/Testing:		20%	\$	317,600			
Mobilization		5%	\$	79,400			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	158,800			
	\$	2,144,000					

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50

updated: 10/2/2012

**Item Cost** 

54,895

Project Information:

Description:

Project No.

F-23

Name:

Old Denton Rd.

This project consists of the widening of a two-lane

Quantity

5,228

Unit

су

Limits: Staybridge Pl. to Cantrell Sansom Rd. undivided concrete facility into a four-lane

Impact Fee Class: M4U (1/2) undivided minor arterial.

Ultimate Class: Minor Arterial

104 Unclassified Street Excavation

Length (If): 3,245 Service Area(s): F

No. Item Description

10-	Officiassified offeet Excavation	5,220 Cy   ψ 10.50				10.00	Ψ	J <del>-1</del> ,035
204	6" Lime Stabilization (with Lime @ 3	32#/sy)	10,276	sy	\$	3.00	\$	30,828
304	9" Concrete Pavement		9,915	sy	\$	36.00	\$	356,950
404	6" Curb & Gutter		3,245	lf	\$	6.50	\$	21,093
504	4" Topsoil		2,704	sy	\$	5.00	\$	13,521
604	4' Concrete Sidewalk		12,980	sf	\$	5.00	\$	64,900
701	Turn Lanes and Median Openings		0					
	·	Pa	aving Const	ruction (	Cost	Subtotal:	\$	542,185
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	16,266
	Traffic Control	Construction Phase	Traffic Control			3%	\$	16,266
	Pavement Markings/Markers					2%	\$	11,639
	Roadway Drainage	Standard Internal Sy	rstem			30%	\$	162,656
	Illumination					11%	\$	61,054
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	32,531
	Sewer	Minor Adjustments				4%	\$	21,687
	Establish Turf / Erosion Control					3%	\$	16,266
	Basic Landscaping					3%	\$	16,266
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					\$0	\$	-
Allowance Subtotal:						\$	504,629	
Paving and Allowance Subtotal:						1,046,815		
	Construction Contingency: 15%						157,022	
			Constru	ction C	ost <sup>-</sup>	TOTAL:	\$	1,204,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,204,000
Engineering/Survey/Testing:		20%	\$ 240,800
Mobilization		5%	\$ 60,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 120,400
	\$ 1,625,000		

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 F-24

 Name:
 Sylvania Ave.
 This project consists of the reconstruction of a two-limits:

 Limits:
 150' of Melody Hills Dr. to Quorum Dr. lane undivided asphalt facility into a four-lane

Impact Fee Class: M4U undivided minor arterial.

Ultimate Class: Minor Arterial 1,840
Service Area(s): F

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
106	Unclassified Street Excavation	5,929	су	\$	10.50	\$	62,253
206	6" Lime Stabilization (with Lime @ 32#/sy)	11,653	sy	\$	3.00	\$	34,960
306	9" Concrete Pavement	11,244	sy	\$	36.00	\$	404,800
406	6" Curb & Gutter	3,680	lf	\$	6.50	\$	23,920
506	4" Topsoil	3,067	sy	\$	5.00	\$	15,333
606	4' Concrete Sidewalk	14,720	sf	\$	5.00	\$	73,600
701	Turn Lanes and Median Openings	0					
	De	wing Conetr	uction (	'net (	Subtotal	¢	614 967

Paving Construction Cost Subtotal: \$ 614,867

Major Construction Component Allow	vances:		
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 18,446
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 18,446
√ Pavement Markings/Markers		2%	\$ 13,199
√ Roadway Drainage	Standard Internal System	30%	\$ 184,460
$\sqrt{}$ Illumination		11%	\$ 69,238
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 36,892
√ Sewer	Minor Adjustments	4%	\$ 24,595
√ Establish Turf / Erosion Control		3%	\$ 18,446
√ Basic Landscaping		3%	\$ 18,446
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	nce Subtotal:	\$ 402,168
	\$ 1,017,035		
	\$ 152,555		
	Construction C	ost TOTAL:	\$ 1,170,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,170,000				
Engineering/Survey/Testing:		20%	\$	234,000				
Mobilization		5%	\$	58,500				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	117,000				
	\$	1,580,000						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information	tion:	Description:	Project No.	F-25
Name:	Riverside Dr. Bridge	This	s project consists of the	he
Limits:	Stone Creek Pkwy. to Existing Riversi	de Dr. con	struction of a new fou	ır-lane divided
Impact Fee Class:	MA4D-B	maj	or arterial bridge over	Fossil Creek.
Ultimate Class:	Major Arterial	The	estimate of the const	ruction of this
Length (If):	985	brid	ge from the City of Fo	ort Worth is
Service Area(s):	F		000.000.	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
City's Estimated Cost		-	\$	6,000,000				
			\$	-				
			\$	-				
			\$	-				
			\$	-				
	Impact Fee Project Cost TOTAL:							

**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.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 F-26

 Name:
 N. Beach St. (14)
 This project consists of the construction of two additional through lanes within the existing median.

 Limits:
 Fossil Creek to Sandshell Blvd.
 additional through lanes within the existing median.

Impact Fee Class: P6D (1/3)
Ultimate Class: Principal Arterial

Length (If): 2,975 Service Area(s): F

Basic Landscaping

Other:

Intersections (Signal, Roundabout, etc.)

No.	Item Description	_	Quantity	Unit	Un	it Price		Item Cost
114	Unclassified Street Excavation		9,256	су	\$	10.50	\$	97,183
214	6" Lime Stabilization (with Lime @ 3	32#/sy)	8,925	sy	\$	3.00	\$	26,775
314	11" Concrete Pavement		8,264	sy	\$	44.00	\$	363,611
414	6" Curb & Gutter		5,950	lf	\$	6.50	\$	38,675
514	4" Topsoil		9,256	sy	\$	5.00	\$	46,278
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		2,151	sy	\$	44.00	\$	94,630
		Pa	aving Constr	uction (	Cost S	Subtotal:	\$	667,152
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Allo	owance		Item Cost
	Prep ROW					20/	•	
· '.	Fleb KOW					3%	\$	20,015
V	Traffic Control	Construction Phase	Traffic Control			3%	\$	20,015 20,015
√ √	•	Construction Phase	Traffic Control				\$	,
' '	Traffic Control	Construction Phase	Traffic Control			3%	\$	20,015
' '	Traffic Control Pavement Markings/Markers		Traffic Control			3% 3%	\$ \$ \$	20,015
' '	Traffic Control Pavement Markings/Markers Roadway Drainage	None Anticipated	Traffic Control		\$	3% 3% 0%	\$ \$ \$	20,015
' '	Traffic Control Pavement Markings/Markers Roadway Drainage Illumination	None Anticipated None Anticipated	Traffic Control		\$	3% 3% 0%	\$ \$ \$ \$ \$	20,015
' '	Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures	None Anticipated None Anticipated None Anticipated	Traffic Control		\$	3% 3% 0% 0%	\$ \$ \$ \$ \$ \$	20,015

	Paving and Allowa	nce Subtotal:	\$ 767,225
	Construction Contingency:	15%	\$ 115,084
	Construction Co	ost TOTAL:	\$ 883,000
Impact Fee Project Cost Summary			

None Anticipated

Impact Fee Project Cost Sun			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 883,000
Engineering/Survey/Testing:		20%	\$ 176,600
Mobilization		5%	\$ 44,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	\$ 1,104,000		

**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.

**Allowance Subtotal:** 

20,015

100,073

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area G

<u>#</u>	Class	<u>Project</u>	<u>Limits</u>	Cost
E-9, G-1	M4U-B	W J Boaz Rd.	Boat Club Rd. to Old Decatur Rd.	\$ 11,351,000
G-2	M4U	Cromwell Marine Creek Rd. (1)	Ten Mile Bridge Rd. to N. City Limits	\$ 3,771,000
G-3	MA4D-B	Cromwell Marine Creek Rd. (2)	Boat Club Rd. to Chesterfield Dr.	\$ 8,747,000
G-4	MA4D-B	Cromwell Marine Creek Rd. (3)	360' E. of Crystal Lake Dr. to Stonewater Bend Tr.	\$ 1,605,000
G-5	MA4D-B	Cromwell Marine Creek Rd. (4)	Stonewater Bend Tr. to Marine Creek Pkwy.	\$ 4,521,000
G-6	MA4D-B	Longhorn Rd.	Marine Creek Pkwy. to Old Decatur Rd.	\$ 1,563,000
G-7	M4U-B	Ten Mile Bridge Rd. (1)	W. City Limits to Boat Club Rd.	\$ 5,600,000
G-8	M4U-B	Ten Mile Bridge Rd. (2)	Boat Club Rd. to Bowman Roberts Rd.	\$ 2,842,000
G-9	M4U-B	Ten Mile Bridge Rd. (3)	Westgate Dr. to Huffines Blvd.	\$ 1,916,000
G-10	M4U	Hodgkins Rd.	Ten Mile Bridge Rd. to 105' S. of Hatch Rd.	\$ 5,141,000
G-11	M4U-B (1/2)	Huffines Blvd. (1)	330' S. of Cromwell Marine Creek Rd. to 135' S. of Sunrise Lake Rd.	\$ 1,422,000
G-12	M4U-B (1/2)	Huffines Blvd. (2)	Texas Shiner Dr. to Sea Bass Dr.	\$ 775,000
G-13	MA4D	Marine Creek Pkwy. (1)	Old Decatur to Existing Cromwell Marine Creek Rd.	\$ 2,246,000
G-14	MA4D-B	Marine Creek Pkwy. (2)	Existing Cromwell Marine Creek Rd. to 420' N of Grayson Ridge Dr.	\$ 5,210,000
G-15	MA4D	Marine Creek Pkwy. (3)	Angle Ave. to Azle Ave.	\$ 7,154,000
G-16	M4U (1/2)	Old Decatur Rd. (2)	River Rock Blvd. to IH-820 WBFR	\$ 672,000
G-17	M4U	Old Decatur Rd. (3)	IH-820 EBFR to Angle Ave.	\$ 3,880,000
G-18	M4U	Delfin St	345' S. of IH-820 EBFR to Future Marine Creek Pkwy	\$ 3,586,000

TOTAL \$ 72,002,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

W J Boaz Rd.
Limits:

Boat Club Rd. to Old Decatur Rd.
Impact Fee Class:

M4U-B

Description:

Project No.

E-9, G-1

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Ultimate Class: Minor Arterial 10,830 Service Area(s): G, E

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation	36,100	су	\$	10.50	\$	379,050
207	6" Lime Stabilization (with Lime @ 32#/sy)	70,997	sy	\$	3.00	\$	212,990
307	9" Concrete Pavement	68,590	sy	\$	36.00	\$	2,469,240
407	6" Curb & Gutter	21,660	lf	\$	6.50	\$	140,790
507	4" Topsoil	15,643	sy	\$	5.00	\$	78,217
607	4' Concrete Sidewalk	86,640	sf	\$	5.00	\$	433,200
701	Turn Lanes and Median Openings	0					
	D.			<b>\</b> 1	0	Φ.	0.740.407

Paving Construction Cost Subtotal: \$ 3,713,487

Major Construction Component Allow	Jancos:	_	
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 111,405
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 111,405
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 148,539
√ Roadway Drainage	Standard Internal System	30%	\$ 1,114,046
√ Illumination		11%	\$ 418,166
√ Special Drainage Structures	Two Minor Stream Crossings	\$ 500,000	\$ 500,000
√ Water	Minor Adjustments	6%	\$ 222,809
√ Sewer	Minor Adjustments	4%	\$ 148,539
√ Establish Turf / Erosion Control		3%	\$ 111,405
√ Basic Landscaping		3%	\$ 111,405
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 600,000
Other:			
	Allowa	ance Subtotal:	\$ 3,597,718
	Paving and Allowa	ance Subtotal:	\$ 7,311,205
	Construction Contingency:	15%	\$ 1,096,681
	Construction C	ost TOTAL:	\$ 8,408,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	8,408,000				
Engineering/Survey/Testing:		20%	\$	1,681,600				
Mobilization		5%	\$	420,400				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	840,800				
	\$	11,351,000						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Cromwell Marine Creek Rd. (1)
Limits:
Description:
Project No.
G-2
This project consists of the construction of a new four-lane undivided minor arterial.

Impact Fee Class: M4U
Ultimate Class: Minor Arterial

Length (If): 3,890 Service Area(s): G

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	12,534	су	\$	10.50	\$ 131,612
206	6" Lime Stabilization (with Lime @ 32#/sy)	24,637	sy	\$	3.00	\$ 73,910
306	9" Concrete Pavement	23,772	sy	\$	36.00	\$ 855,800
406	6" Curb & Gutter	7,780	lf	\$	6.50	\$ 50,570
506	4" Topsoil	6,483	sy	\$	5.00	\$ 32,417
606	4' Concrete Sidewalk	31,120	sf	\$	5.00	\$ 155,600
701	Turn Lanes and Median Openings	0				
Paving Construction Cost Subtotal:					\$ 1,299,908	

Maio	or Construction Component Allow	ances:		
maj	Item Description	Notes	Allowance	Item Cost
V	Prep ROW		3%	\$ 38,997
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers		2%	\$ 27,905
$\checkmark$	Roadway Drainage	Standard Internal System	30%	\$ 389,973
$\checkmark$	Illumination		11%	\$ 146,379
	Special Drainage Structures	None Anticipated	\$ -	\$ -
$\checkmark$	Water	Minor Adjustments	6%	\$ 77,995
$\checkmark$	Sewer	Minor Adjustments	4%	\$ 51,996
	Establish Turf / Erosion Control		3%	\$ 38,997
	Basic Landscaping		3%	\$ 38,997
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
	Other:		\$0	\$ -
		Allowa	ance Subtotal:	\$ 961,239
		Paving and Allowa		\$ 2,261,148
		Construction Contingency:	15%	\$ 339,172
		Construction C	ost TOTAL:	\$ 2,601,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,601,000
Engineering/Survey/Testing:		20%	\$ 520,200
Mobilization		5%	\$ 130,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 520,200
	Impact Fee Project	Cost TOTAL:	\$ 3,771,000

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Cromwell Marine Creek Rd. (2)
Limits:
Boat Club Rd. to Chesterfield Dr.
Impact Fee Class:
MA4D-B

Description:
Project No.
G-3

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Ultimate Class: Major Arterial

Length (If): 6,415 Service Area(s): G

adway Construction Cost Projection						
Item Description	Quantity	Unit	Unit Price			Item Cost
Unclassified Street Excavation	29,224	су	\$	10.50	\$	306,851
6" Lime Stabilization (with Lime @ 32#/sy)	44,192	sy	\$	3.00	\$	132,577
11" Concrete Pavement	41,341	sy	\$	44.00	\$	1,819,009
6" Curb & Gutter	25,660	lf	\$	6.50	\$	166,790
4" Topsoil	30,649	sy	\$	5.00	\$	153,247
4' Concrete Sidewalk	51,320	sf	\$	5.00	\$	256,600
Turn Lanes and Median Openings	4,638	sy	\$	44.00	\$	204,050
	Item Description Unclassified Street Excavation 6" Lime Stabilization (with Lime @ 32#/sy) 11" Concrete Pavement 6" Curb & Gutter 4" Topsoil 4' Concrete Sidewalk	Item DescriptionQuantityUnclassified Street Excavation29,2246" Lime Stabilization (with Lime @ 32#/sy)44,19211" Concrete Pavement41,3416" Curb & Gutter25,6604" Topsoil30,6494' Concrete Sidewalk51,320	Item Description         Quantity         Unit           Unclassified Street Excavation         29,224         cy           6" Lime Stabilization (with Lime @ 32#/sy)         44,192         sy           11" Concrete Pavement         41,341         sy           6" Curb & Gutter         25,660         If           4" Topsoil         30,649         sy           4' Concrete Sidewalk         51,320         sf	Item Description         Quantity         Unit         Un           Unclassified Street Excavation         29,224         cy         \$           6" Lime Stabilization (with Lime @ 32#/sy)         44,192         sy         \$           11" Concrete Pavement         41,341         sy         \$           6" Curb & Gutter         25,660         If         \$           4" Topsoil         30,649         sy         \$           4' Concrete Sidewalk         51,320         sf         \$	Item Description         Quantity         Unit         Unit Price           Unclassified Street Excavation         29,224         cy         \$ 10.50           6" Lime Stabilization (with Lime @ 32#/sy)         44,192         sy         \$ 3.00           11" Concrete Pavement         41,341         sy         \$ 44.00           6" Curb & Gutter         25,660         If         \$ 6.50           4" Topsoil         30,649         sy         \$ 5.00           4' Concrete Sidewalk         51,320         sf         \$ 5.00	Item Description         Quantity         Unit         Unit Price           Unclassified Street Excavation         29,224         cy         \$ 10.50         \$           6" Lime Stabilization (with Lime @ 32#/sy)         44,192         sy         \$ 3.00         \$           11" Concrete Pavement         41,341         sy         \$ 44.00         \$           6" Curb & Gutter         25,660         If         \$ 6.50         \$           4" Topsoil         30,649         sy         \$ 5.00         \$           4' Concrete Sidewalk         51,320         sf         \$ 5.00         \$

Paving Construction Cost Subtotal: \$ 3,039,124

Majo	Major Construction Component Allowances:									
	Item Description	Notes	Allowance		Item Cost					
	Prep ROW		3%	\$	91,174					
	Traffic Control	Construction Phase Traffic Control	3%	\$	91,174					
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	121,565					
	Roadway Drainage	Standard Internal System	30%	\$	911,737					
	Illumination		11%	\$	342,228					
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000					
	Water	Minor Adjustments	6%	\$	182,347					
	Sewer	Minor Adjustments	4%	\$	121,565					
	Establish Turf / Erosion Control		3%	\$	91,174					
	Basic Landscaping		3%	\$	91,174					
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000					
	Other:									
		Allowa	nce Subtotal:	\$	2,594,137					
		Paving and Allowa	nce Subtotal:	\$	5,633,261					
		Construction Contingency:	15%	\$	844,989					
		Construction C	ost TOTAL:	\$	6,479,000					

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	6,479,000					
Engineering/Survey/Testing:		20%	\$	1,295,800					
Mobilization		5%	\$	323,950					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	647,900					
	Impact Fee Pro	ject Cost TOTAL:	\$	8,747,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. G-4
Name:	Cromwell Marine Creek Rd. (3)		This project consists of the
Limits:	360' E. of Crystal Lake Dr. to Stonew	ater Bend Tr.	reconstruction of an existing two-lane
Impact Fee Class:			undivided asphalt facility into a four-
Ultimate Class:	Major Arterial		lane divided major arterial.
Length (If):	1,040		
Service Area(s):	G		

Roa	adway Construction Cost Pro	ojection						
No.	Item Description	-	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		4,738	су	\$	10.50	\$	49,747
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	7,164	sy	\$	3.00	\$	21,493
309	11" Concrete Pavement		6,702	sy	\$	44.00	\$	294,898
409	6" Curb & Gutter		4,160	lf	\$	6.50	\$	27,040
509	4" Topsoil		4,969	sy	\$	5.00	\$	24,844
609	4' Concrete Sidewalk		8,320	sf	\$	5.00	\$	41,600
701	Turn Lanes and Median Openings		752	sy	\$	44.00	\$	33,081
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	492,703
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			All	owance		Item Cost
V	Prep ROW			·		3%	\$	14,781
	Traffic Control	Construction Phase	Traffic Control			3%	\$	14,781
1							_	

Item Description	Notes	Allowance	Item Cost
 Prep ROW		3%	\$ 14,781
 Traffic Control	Construction Phase Traffic Control	3%	\$ 14,781
 Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 19,708
 Roadway Drainage	Standard Internal System	30%	\$ 147,811
 Illumination		11%	\$ 55,482
 Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$ 250,000
 Water	Minor Adjustments	6%	\$ 29,562
 Sewer	Minor Adjustments	4%	\$ 19,708
 Establish Turf / Erosion Control		3%	\$ 14,781
 Basic Landscaping		3%	\$ 14,781
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	nce Subtotal:	\$ 581,396
	Paving and Allowa	nce Subtotal:	\$ 1,074,098
	Construction Contingency:	15%	\$ 161,115
	Construction C	ost TOTAL:	\$ 1,236,000

Impact Fee Project Cost Sun			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,236,000
Engineering/Survey/Testing:		20%	\$ 247,200
Mobilization		5%	\$ 61,800
Previous City contribution			\$ -
Other	CFA# 98064		\$ (63,367)
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 123,600
	Impact Fee Project C	ost TOTAL:	\$ 1,605,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. **G-5** Description: Name:

Cromwell Marine Creek Rd. (4) This project consists of the Limits:

Stonewater Bend Tr. to Marine Creek Pkwy. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial. **Ultimate Class:** Major Arterial

Length (If): 3,050 Service Area(s): G

No.	No.   Item Description   Quantity   Unit			U	nit Price	Item Cost	
109	Unclassified Street Excavation		13,894	су	\$	10.50	\$ 145,892
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	21,011	sy	\$	3.00	\$ 63,033
309	11" Concrete Pavement		19,656	sy	\$	44.00	\$ 864,844
409	6" Curb & Gutter		12,200	lf	\$	6.50	\$ 79,300
509	4" Topsoil		14,572	sy	\$	5.00	\$ 72,861
609	4' Concrete Sidewalk		24,400	sf	\$	5.00	\$ 122,000
701	Turn Lanes and Median Openings		2,205	sy	\$	44.00	\$ 97,015
		Pa	aving Constr	uction (	Cost	Subtotal:	\$ 1,444,946
Majo	or Construction Component Allowa	inces:					
	Item Description	Notes			Al	lowance	Item Cost
	Prep ROW					3%	\$ 43,348
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 57,798
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 433,484
	Illumination					11%	\$ 162,711
	Special Drainage Structures	Crosses Minor Strea	m		\$	250,000	\$ 250,000
	Water	Minor Adjustments				6%	\$ 86,697
	Sewer	Minor Adjustments				4%	\$ 57,798
	Establish Turf / Erosion Control	, i				3%	\$ 43,348
	Basic Landscaping					3%	\$ 43,348
- 1	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile				\$150,000	150,000

Item Description Notes:  Construction: Engineering/Survey/Testing: Mobilization Previous City contribution	Allowance	<b>\$</b>	3,190,000 638,000
Engineering/Survey/Testing: Mobilization		<b>\$</b>	, ,
Mobilization	20%	\$	638 000
		Ψ	030,000
Previous City contribution	5%	\$	159,500
		\$	-
Other CFA# 2003111 & 20136		\$	(104,817)
ROW/Easement Acquisition: New Roadway Alignment	20%	\$	638,000

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.

Other:

\$0

\$

Allowance Subtotal:

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Impact Fee Project Cost TOTAL:

Construction Contingency:

1,328,533

2,773,479

3,190,000

4,521,000

416,022

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:		Description:	Project No. G-6				
Name:	Longhorn Rd.		This project consists of the				
Limits:	Marine Creek Pkwy. to Old Decatur Ro	d.	reconstruction of an existing two-lane				
Impact Fee Class:	MA4D-B	undivided asphalt facility into a four-					
Ultimate Class:	Major Arterial		lane divided major arterial.				
Length (If):	1,270		,				
Service Area(s):	G						

	dway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		5,786	су	\$	10.50	\$	60,748
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	8,749	sy	\$	3.00	\$	26,247
309	11" Concrete Pavement		8,184	sy	\$	44.00	\$	360,116
409	6" Curb & Gutter		5,080	lf	\$	6.50	\$	33,020
509	4" Topsoil		6,068	sy	\$	5.00	\$	30,339
609	09 4' Concrete Sidewalk 10,160 sf			\$	5.00	\$	50,800	
701	Turn Lanes and Median Openings		918	sy	\$	44.00	\$	40,397
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	601,666
Majo	or Construction Component Allowa							
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%		18,050
	Traffic Control	Construction Phase	Traffic Control			3%		18,050
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		24,067
√,	Roadway Drainage	Standard Internal Sys	stem			30%		180,500
$\checkmark$	Illumination					11%		67,752
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		36,100
	Sewer	Minor Adjustments				4%		24,067
	Establish Turf / Erosion Control					3%	\$	18,050
	Basic Landscaping					3%		18,050
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other: \$0					_	-	
				Allowa	ince :	Subtotal:	\$	404,685
			Paving and					1,006,351
		Constru	uction Conti			15%		150,953
			Construc	ction C	ost <sup>-</sup>	TOTAL:	\$	1,158,000

Impact Fee Project Cost Sumi	nary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,158,000
Engineering/Survey/Testing:		20%	\$ 231,600
Mobilization		5%	\$ 57,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 115,800
	Impact Fee Project C	ost TOTAL:	\$ 1,563,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **G-7** Name: Ten Mile Bridge Rd. (1) This project consists of the reconstruction of an Limits: W. City Limits to Boat Club Rd. existing two-lane undivided asphalt facility into a Impact Fee Class: M4U-B four-lane undivided minor arterial.

Ultimate Class: Minor Arterial Length (If): 5,765

Service Area(s): G

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	19,217	су	\$	10.50	\$ 201,775
207	6" Lime Stabilization (with Lime @ 32#/sy)	37,793	sy	\$	3.00	\$ 113,378
307	9" Concrete Pavement	36,512	sy	\$	36.00	\$ 1,314,420
407	6" Curb & Gutter	11,530	lf	\$	6.50	\$ 74,945
507	4" Topsoil	8,327	sy	\$	5.00	\$ 41,636
607	4' Concrete Sidewalk	46,120	sf	\$	5.00	\$ 230,600
701	Turn Lanes and Median Openings	0				
	P	aving Constr	uction (	Cost	Subtotal:	\$ 1,976,754
Majo	or Construction Component Allowances:					
	Itom Description Notes			AIL	owanco	Itom Cost

Maj	or Construction Component Allowa	ances:					
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	59,303		
	Traffic Control	Construction Phase Traffic Control	3%	\$	59,303		
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	79,070		
	Roadway Drainage	Standard Internal System	30%	\$	593,026		
	Illumination		11%	\$	222,597		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	118,605		
	Sewer	Minor Adjustments	4%	\$	79,070		
	Establish Turf / Erosion Control		3%	\$	59,303		
	Basic Landscaping		3%	\$	59,303		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000		
	Other:		\$0	\$	-		
		Allowa	ınce Subtotal:	\$	1,629,579		
	Paving and Allowance Subtotal:						
		Construction Contingency:	15%	\$	540,950		
		Construction C	ost TOTAL:	\$	4,148,000		

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,148,000
Engineering/Survey/Testing:		20%	\$ 829,600
Mobilization		5%	\$ 207,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 414,800
	Impact Fee Project C	ost TOTAL:	\$ 5,600,000

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.

**Project Information:** 

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Description: Project No. G-8

Name: Ten Mile Bridge Rd. (2) This project consists of the Limits: Boat Club Rd. to Bowman Roberts Rd. reconstruction of an existin

Limits:Boat Club Rd. to Bowman Roberts Rd.reconstruction of an existing two-laneImpact Fee Class:M4U-Bundivided asphalt facility into a four-lane undivided minor arterial.

Length (If): 2,930 Service Area(s): G

No.	No.   Item Description   Quantity   Unit			Un	it Price		Item Cost	
107	Unclassified Street Excavation		9,767	су	\$	10.50	\$	102,550
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	19,208	sy	\$	3.00	\$	57,623
307	9" Concrete Pavement		18,557	sy	\$	36.00	\$	668,040
407	6" Curb & Gutter		5,860	lf	\$	6.50	\$	38,090
507	4" Topsoil		4,232	sy	\$	5.00	\$	21,161
607	4' Concrete Sidewalk		23,440	sf	\$	5.00	\$	117,200
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,004,664
Majo	or Construction Component Allows							
	Item Description	Notes			Alle	owance		Item Cost
$\sqrt{}$	Prep ROW					3%		30,140
	Traffic Control	Construction Phase	Traffic Control			3%		30,140
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		40,187
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem			30%		301,399
	Illumination					11%	\$	113,133
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		60,280
	Sewer	Minor Adjustments				4%		40,187
	Establish Turf / Erosion Control					3%	\$	30,140
$\sqrt{}$	Basic Landscaping					3%		30,140
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile \$150,000			\$	150,000		
	Other:							
	Allowance Subtotal:					\$	825,745	
Paving and Allowance Subtotal:							1,830,409	
		Constru	uction Conti	-		15%	*	274,561
			Construc	ction C	ost 7	TOTAL:	\$	2,105,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,105,000
Engineering/Survey/Testing:		20%	\$ 421,000
Mobilization		5%	\$ 105,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 210,500
	Impact Fee Project	t Cost TOTAL:	\$ 2,842,000

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Ten Mile Bridge Rd. (3)

Limits:

Westgate Dr. to Huffines Blvd.

Impact Fee Class:

M4U-B

Description:

Project No.

G-9

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Ultimate Class:
Length (If):
Service Area(s):

Minor Arterial
2,150
G

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	7,167	су	\$	10.50	\$ 75,250
207	6" Lime Stabilization (with Lime @ 32#/sy)	14,094	sy	\$	3.00	\$ 42,283
307	9" Concrete Pavement	13,617	sy	\$	36.00	\$ 490,200
407	6" Curb & Gutter	4,300	lf	\$	6.50	\$ 27,950
507	4" Topsoil	3,106	sy	\$	5.00	\$ 15,528
607	4' Concrete Sidewalk	17,200	sf	\$	5.00	\$ 86,000
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 737,211

Мај	or Construction Component Allow	ances:	_			
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	22,116	
	Traffic Control	Construction Phase Traffic Control	3%	\$	22,116	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	29,488	
	Roadway Drainage	Standard Internal System	30%	\$	221,163	
	Illumination		11%	\$	83,015	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	44,233	
	Sewer	Minor Adjustments	4%	\$	29,488	
	Establish Turf / Erosion Control		3%	\$	22,116	
	Basic Landscaping		3%	\$	22,116	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:					
		Allowa	nce Subtotal:	\$	495,854	
	Paving and Allowance Subtotal:					
	Construction Contingency: 15%					
		Construction C	ost TOTAL:	\$	1,419,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,419,000
Engineering/Survey/Testing:		20%	\$ 283,800
Mobilization		5%	\$ 70,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 141,900
	Impact Fee Proje	ct Cost TOTAL:	\$ 1,916,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

G

Kimley-Horn and Associates, Inc. 10/2/2012 updated:

**Project Information:** Description: Project No. G-10 Name: Hodgkins Rd. This project consists of the Limits: Ten Mile Bridge Rd. to 105' S. of Hatch Rd. reconstruction of an existing two-lane Impact Fee Class: M4U undivided asphalt facility into a four-**Ultimate Class:** Minor Arterial lane undivided minor arterial. Length (If): 5,420 Service Area(s):

Roa	adway Construction Cost Pi	ojection					
	Item Description	•	Quantity	Unit	Ur	it Price	Item Cost
106	Unclassified Street Excavation		17,464	су	\$	10.50	\$ 183,377
206	6" Lime Stabilization (with Lime @	32#/sy)	34,327	sy	\$	3.00	\$ 102,980
306	9" Concrete Pavement		33,122	sy	\$	36.00	\$ 1,192,400
406	6" Curb & Gutter		10,840	lf	\$	6.50	\$ 70,460
506	4" Topsoil		9,033	sy	\$	5.00	\$ 45,167
606	4' Concrete Sidewalk		43,360	sf	\$	5.00	\$ 216,800
701	Turn Lanes and Median Openings		0				
		F	aving Const	ruction (	Cost	Subtotal:	\$ 1,811,183
Majo	or Construction Component Allow	vances:			_		
	Item Description	Notes			All	owance	Item Cost
V	Prep ROW		•			3%	\$ 54,336
	Traffic Control	Construction Phase Traffic Control				3%	\$ 54,336
	Pavement Markings/Markers	Pavement Markings	s and Bike Route			3%	\$ 54,336

	Item Description	Notes	Allowance		Item Cost	
V	Prep ROW		3%	\$	54,336	
	Traffic Control	Construction Phase Traffic Control	3%	\$	54,336	
	Pavement Markings/Markers	Pavement Markings and Bike Route	3%	\$	54,336	
	Roadway Drainage	Standard Internal System	30%	\$	543,355	
	Illumination		11%	\$	203,952	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	108,671	
	Sewer	Minor Adjustments	4%	\$	72,447	
	Establish Turf / Erosion Control		3%	\$	54,336	
	Basic Landscaping		3%	\$	54,336	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000	
	Other:					
		Allowa	nce Subtotal:	\$	1,500,103	
					3,311,287	
	Paving and Allowance Subtotal:					
	\$	496,693				
		Construction C	ost TOTAL:	\$	3,808,000	

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,808,000
Engineering/Survey/Testing:		20%	\$ 761,600
Mobilization		5%	\$ 190,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 380,800
	Impact Fee Project C	ost TOTAL:	\$ 5,141,000

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. G-11

Name: Huffines Blvd. (1)

Limits: 330' S. of Cromwell Marine Creek Rd. to 135' S. of Sunrise Lake Rd.

Impact Fee Class: M4U-B (1/2) This project consists of the widening of a two-lane

Ultimate Class: Minor Arterial undivided concrete facility into a four-lane

Length (If): 2,670 undivided minor arterial.

Service Area(s): G

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
105	Unclassified Street Excavation	4,450	су	\$	10.50	\$ 46,725
205	6" Lime Stabilization (with Lime @ 32#/sy)	8,752	sy	\$	3.00	\$ 26,255
305	9" Concrete Pavement	8,455	sy	\$	36.00	\$ 304,380
405	6" Curb & Gutter	2,670	lf	\$	6.50	\$ 17,355
505	4" Topsoil	1,928	sy	\$	5.00	\$ 9,642
605	4' Concrete Sidewalk	10,680	sf	\$	5.00	\$ 53,400
701	Turn Lanes and Median Openings	0				
	Pa	aving Constr	uction (	Cost	Subtotal:	\$ 457,757
		-				

Major Construction Component Allow	vances:					
Item Description	Notes	Allowance		Item Cost		
√ Prep ROW		3%	\$	13,733		
√ Traffic Control	Construction Phase Traffic Control	3%	\$	13,733		
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	18,310		
√ Roadway Drainage	Standard Internal System	30%	\$	137,327		
$\sqrt{}$ Illumination		11%	\$	51,547		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
√ Water	Minor Adjustments	6%	\$	27,465		
√ Sewer	Minor Adjustments	4%	\$	18,310		
√ Establish Turf / Erosion Control		3%	\$	13,733		
√ Basic Landscaping		3%	\$	13,733		
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
Other:		\$0	\$	-		
	Allov	vance Subtotal:	\$	457,890		
	\$	915,647				
	Construction Contingency: 15%					
	Construction (	Cost TOTAL:	\$	1,053,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,053,000			
Engineering/Survey/Testing:		20%	\$	210,600			
Mobilization		5%	\$	52,650			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	105,300			
	\$	1,422,000					

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Huffines Blvd. (2)
Limits:
Description:
Project No.
G-12
This project consists of the widening of a two-lane undivided concrete facility into a four-lane

Impact Fee Class: M4U-B (1/2)
Ultimate Class: Minor Arterial

Length (If): 1,740
Service Area(s): G

undivided minor arterial.

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
105	Unclassified Street Excavation	2,900	су	\$	10.50	\$ 30,450
205	6" Lime Stabilization (with Lime @ 32#/sy)	5,703	sy	\$	3.00	\$ 17,110
305	9" Concrete Pavement	5,510	sy	\$	36.00	\$ 198,360
405	6" Curb & Gutter	1,740	lf	\$	6.50	\$ 11,310
505	4" Topsoil	1,257	sy	\$	5.00	\$ 6,283
605	4' Concrete Sidewalk	6,960	sf	\$	5.00	\$ 34,800
701	Turn Lanes and Median Openings	0				
		Paving Constr	uction (	Cost S	Subtotal:	\$ 298,313

Major Construction Component Allow						
Item Description	Notes	Allowance		Item Cost		
√ Prep ROW		3%	\$	8,949		
√ Traffic Control	Construction Phase Traffic Control	3%	\$	8,949		
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	11,933		
√ Roadway Drainage	Standard Internal System	30%	\$	89,494		
√ Illumination		11%	\$	33,592		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
√ Water	Minor Adjustments	6%	\$	17,899		
√ Sewer	Minor Adjustments	4%	\$	11,933		
√ Establish Turf / Erosion Control		3%	\$	8,949		
√ Basic Landscaping		3%	\$	8,949		
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
Other:		\$0	\$	-		
	Allov	vance Subtotal:	\$	200,648		
	\$	498,961				
	Paving and Allowance Subtotal:  Construction Contingency: 15%					
	Construction	Cost TOTAL:	\$	574,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	574,000			
Engineering/Survey/Testing:		20%	\$	114,800			
Mobilization		5%	\$	28,700			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	57,400			
	Impact Fee Project C	ost TOTAL:	\$	775,000			

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

1,549,000

Project Information: Description: Project No. G-13

Name: Marine Creek Pkwy. (1) This project consists of the

Limits: Old Decatur to Existing Cromwell Marine Creek Rd construction of a new four-lane divided

Quantity

Unit

**Construction Cost TOTAL:** 

**Unit Price** 

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial Length (If): 1,790

Service Area(s): 6

No. Item Description

108	Unclassified Street Excavation		7,956	су	\$	10.50	\$	83,533
208	6" Lime Stabilization (with Lime @ 3	2#/sy)	11,933	sy	\$	3.00	\$	35,800
308	11" Concrete Pavement		11,138	sy	\$	44.00	\$	490,062
408	6" Curb & Gutter		7,160	lf	\$	6.50	\$	46,540
508	4" Topsoil		8,950	sy	\$	5.00	\$	44,750
608	4' Concrete Sidewalk		14,320	sf	\$	5.00	\$	71,600
701	Turn Lanes and Median Openings		1,294	sy	\$	44.00	\$	56,937
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$	829,222
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
V	Prep ROW					3%	\$	24,877
	Traffic Control	None Anticipated				0%	\$	-
$\sqrt{}$	Pavement Markings/Markers					2%	\$	17,801
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%		248,767
	Illumination					11%	\$	93,377
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\sqrt{}$	Water	Minor Adjustments				6%		49,753
$\sqrt{}$	Sewer	Minor Adjustments				4%		33,169
$\sqrt{}$	Establish Turf / Erosion Control					3%		24,877
	Basic Landscaping					3%		24,877
	Intersections (Signal, Roundabout, etc.)	I, Roundabout, etc.) None Anticipated				\$0		-
	Other:					\$0	_	-
Allowance Subtotal:						\$	517,496	
		_	Paving an					1,346,719
	Construction Contingency: 15%							202,008

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,549,000
Engineering/Survey/Testing:		20%	\$ 309,800
Mobilization		5%	\$ 77,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 309,800
	Impact Fee Pro	ject Cost TOTAL:	\$ 2,246,000

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: Project No. G-14

Name: Marine Creek Pkwy. (2)

**Roadway Construction Cost Projection** 

Limits: Existing Cromwell Marine Creek Rd. to 420' N of Grayson Ridge Dr.

Impact Fee Class: MA4D-B This project consists of the reconstruction of an **Ultimate Class:** Major Arterial existing two-lane undivided asphalt facility into a

Length (If): 4,045 four-lane divided major arterial.

Service Area(s): G

No.	Item Description	,	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation		18,427	су	\$	10.50	\$ 193,486
209	6" Lime Stabilization (with Lime @ 3	Lime Stabilization (with Lime @ 32#/sy) 27,866 sy			\$	3.00	\$ 83,597
309	11" Concrete Pavement		26,068	sy	\$	44.00	\$ 1,146,982
409	6" Curb & Gutter		16,180	lf	\$	6.50	\$ 105,170
509	4" Topsoil		19,326	sy	\$	5.00	\$ 96,631
609	4' Concrete Sidewalk		32,360	sf	\$	5.00	\$ 161,800
701	Turn Lanes and Median Openings		2,924	sy	\$	44.00	\$ 128,665
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 1,916,330
Majo	or Construction Component Allowa	ances:	_	_		_	
	Item Description	Notes			Allo	owance	Item Cost
	Prep ROW					3%	\$ 57,490
	Traffic Control	Construction Phase	Traffic Control			3%	 57,490
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 76,653
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 574,899
	Illumination					11%	\$ 215,793
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	114,980
	Sewer	Minor Adjustments				4%	76,653
	Establish Turf / Erosion Control					3%	\$ 57,490
	Basic Landscaping					3%	\$ 57,490
$\checkmark$	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile		,	\$150,000	\$ 150,000
	Other:	\$0				\$ -	
Allowance Subtotal:							\$ 1,438,938
Paving and Allowance Subtotal:						\$ 3,355,268	
Construction Contingency: 15%						503,290	
			Construc	ction C	ost 1	OTAL:	\$ 3,859,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,859,000
Engineering/Survey/Testing:		20%	\$ 771,800
Mobilization		5%	\$ 192,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 385,900
	\$ 5,210,000		

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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. G-15

Name: Marine Creek Pkwy. (3) This project consists of the construction of a new

Limits: Angle Ave. to Azle Ave. four-lane divided major arterial. Impact Fee Class: MA4D

Ultimate Class:
Length (If):
Service Area(s):

Major Arterial
5,170
G

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
108	Unclassified Street Excavation	22,978	су	\$	10.50	\$ 241,267
208	6" Lime Stabilization (with Lime @ 32#/sy)	34,467	sy	\$	3.00	\$ 103,400
308	11" Concrete Pavement	32,169	sy	\$	44.00	\$ 1,415,431
408	6" Curb & Gutter	20,680	lf	\$	6.50	\$ 134,420
508	4" Topsoil	25,850	sy	\$	5.00	\$ 129,250
608	4' Concrete Sidewalk	41,360	sf	\$	5.00	\$ 206,800
701	Turn Lanes and Median Openings	3,737	sy	\$	44.00	\$ 164,449
	Pa	aving Consti	ruction (	Cost S	Subtotal:	\$ 2,395,017

Maio	or Construction Component Allow	ances.					
meg	Item Description	Notes	Allowance		Item Cost		
V	Prep ROW		3%	\$	71,851		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers		2%	\$	51,413		
	Roadway Drainage	Standard Internal System	30%	\$	718,505		
	Illumination		11%	\$	269,696		
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000		
	Water	Minor Adjustments	6%	\$	143,701		
	Sewer	Minor Adjustments	4%	\$	95,801		
	Establish Turf / Erosion Control		3%	\$	71,851		
	Basic Landscaping		3%	\$	71,851		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:		\$0	\$	-		
		Allowa	ance Subtotal:	\$	1,894,668		
	Paving and Allowance Subtotal:						
		Construction Contingency:	15%	\$	643,453		
		Construction C	ost TOTAL:	\$	4,934,000		

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	4,934,000		
Engineering/Survey/Testing:		20%	\$	986,800		
Mobilization		5%	\$	246,700		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	986,800		
	\$	7,154,000				

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Old Decatur Rd. (2)

Limits:

Description:

Project No.

G-16

This project consists of the widening of a two-lane undivided concrete facility into a four-lane

Impact Fee Class: M4U (1/2)
Ultimate Class: Minor Arterial

Length (If): 1,565 Service Area(s): G undivided minor arterial.

No.	Item Description	Quantity	Unit	Unit Price			Item Cost
104	Unclassified Street Excavation	2,521	су	\$	10.50	\$	26,475
204	6" Lime Stabilization (with Lime @ 32#/sy)	4,956	sy	\$	3.00	\$	14,868
304	9" Concrete Pavement	4,782	sy	\$	36.00	\$	172,150
404	6" Curb & Gutter	1,565	lf	\$	6.50	\$	10,173
504	4" Topsoil	1,304	sy	\$	5.00	\$	6,521
604	4' Concrete Sidewalk	6,260	sf	\$	5.00	\$	31,300
701	Turn Lanes and Median Openings	0					
Paving Construction Cost Subtotal: \$							

Major Construction Component Allowances:						
Item Description	Notes	Allowance		Item Cost		
√ Prep ROW		3%	\$	7,845		
√ Traffic Control	Construction Phase Traffic Control	3%	\$	7,845		
√ Pavement Markings/Markers		2%	\$	5,613		
√ Roadway Drainage	Standard Internal System	30%	\$	78,446		
√ Illumination		11%	\$	29,445		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
√ Water	Minor Adjustments	6%	\$	15,689		
√ Sewer	Minor Adjustments	4%	\$	10,459		
√ Establish Turf / Erosion Control		3%	\$	7,845		
√ Basic Landscaping		3%	\$	7,845		
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
Other:						
	Allowa	ınce Subtotal:	\$	171,031		
	Paving and Allowa			432,516		
	Construction Contingency:			64,877		
	Construction C	ost TOTAL:	\$	498,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	498,000			
Engineering/Survey/Testing:		20%	\$	99,600			
Mobilization		5%	\$	24,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	49,800			
	\$	672,000					

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10/2/2012 updated:

**Item Cost** 

2,874,000

**Project Information:** Project No. **G-17** Description: Name: Old Decatur Rd. (3) This project consists of the widening of a two-lane Limits: IH-820 EBFR to Angle Ave. undivided asphalt facility into a four-lane undivided Impact Fee Class: M4U minor arterial. **Ultimate Class:** Minor Arterial

Quantity

Unit

Length (If): 4,250 Service Area(s): G

No. Item Description

106	Unclassified Street Excavation		13,694	су	\$	10.50	\$ 143,792
206	6" Lime Stabilization (with Lime @ 3	2 32#/sy) 26,917 sy 5			\$	3.00	\$ 80,750
306	9" Concrete Pavement	25,972 sy			\$	36.00	\$ 935,000
406	6" Curb & Gutter		8,500	lf	\$	6.50	\$ 55,250
506	4" Topsoil		7,083	sy	\$	5.00	\$ 35,417
606	4' Concrete Sidewalk		34,000	sf	\$	5.00	\$ 170,000
701	Turn Lanes and Median Openings		0				
		Pa	ving Const	ruction (	Cost	Subtotal:	\$ 1,420,208
Majo	or Construction Component Allowa						
	Item Description	Notes			All	owance	Item Cost
٧,	Prep ROW					3%	\$ 42,606
٧,	Traffic Control	Construction Phase	Traffic Control			3%	\$ 42,606
√,	Pavement Markings/Markers					2%	\$ 30,487
√,	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 426,063
√	Illumination					11%	\$ 159,926
,	Special Drainage Structures	None Anticipated			\$	-	\$ -
V	Water	Minor Adjustments				6%	\$ 85,213
V	Sewer	Minor Adjustments				4%	\$ 56,808
V	Establish Turf / Erosion Control					3%	\$ 42,606
V	Basic Landscaping					3%	\$ 42,606
V	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$ 150,000
	Other:					\$0	\$ -
				Allowa	nce s	Subtotal:	\$ 1,078,922
							2 122 122
		•	Paving an				2,499,130
Construction Contingency: 15%							\$ 374,869

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,874,000
Engineering/Survey/Testing:		20%	\$ 574,800
Mobilization		5%	\$ 143,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 287,400
	\$ 3,880,000		

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.

\$

**Construction Cost TOTAL:** 

Service Area(s):

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

G

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: G-18 Project No. Name: Delfin St This project consists of the Limits: 345' S. of IH-820 EBFR to Future Marine Creek Pkwy construction of a new four-lane Impact Fee Class: M4U undivided minor arterial. **Ultimate Class:** Minor Arterial Length (If): 3,685

Roa	adway Construction Cost Projection								
No.	Item Description	Quantity	Unit	Un	Unit Price		Unit Price Item		Item Cost
106	Unclassified Street Excavation	11,874	су	\$	10.50	\$	124,676		
206	6" Lime Stabilization (with Lime @ 32#/sy)	23,338	sy	\$	3.00	\$	70,015		
306	9" Concrete Pavement	22,519	sy	\$	36.00	\$	810,700		
406	6" Curb & Gutter	7,370	lf	\$	6.50	\$	47,905		
506	4" Topsoil	6,142	sy	\$	5.00	\$	30,708		
606	4' Concrete Sidewalk	29,480	sf	\$	5.00	\$	147,400		
701	Turn Lanes and Median Openings	0							

Paving Construction Cost Subtotal: \$ 1,231,404

Major Construction Component Allow	•	Alleurenee	Ham Cast
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	36,942
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers		2%	\$ 26,434
√ Roadway Drainage	Standard Internal System	30%	\$ 369,421
√ Illumination		11%	\$ 138,665
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 73,884
√ Sewer	Minor Adjustments	4%	\$ 49,256
√ Establish Turf / Erosion Control		3%	\$ 36,942
√ Basic Landscaping		3%	\$ 36,942
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:		\$0	\$ -
	Allo	owance Subtotal:	\$ 918,488
	Paving and Allo	owance Subtotal:	\$ 2,149,892
	Construction Contingen	cy: 15%	\$ 322,484
	Construction	Cost TOTAL:	\$ 2,473,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,473,000
Engineering/Survey/Testing:		20%	\$ 494,600
Mobilization		5%	\$ 123,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 494,600
	\$ 3,586,000		

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area L

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>		Cost
L-1	MA4D-B	E 1st St. (1)	N. Beach St. to 825' W of Oakland Blvd.	\$	3,315,000
L-2	MA4D-B	Randol Mill Rd. (1)	500' NE of Lake Havasu Tr. to 630' W of Woodhaven Blvd.	\$	5,222,000
	•	·	TOTAL	<u></u>	0.507.000

TOTAL \$ 8,537,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. L-1
Name:	E 1st St. (1)		This project consists of the
Limits:	N. Beach St. to 825' W of Oakland Blv	/d.	reconstruction of an existing two-lane
Impact Fee Class:	MA4D-B		undivided asphalt facility into a four-
Ultimate Class:	Major Arterial		lane divided major arterial. The total
Length (If):	8,095		anticipated costs of this project is
			\$19,511,835. \$2,397,335 is Federal
			funds, \$1,723,500 is County funds, and
			\$12,076,000 are TxDOT funds. The total
Service Area(s):	L		City cost is \$3,315,000.

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 19,511,835
Federal Funds			\$ (2,397,335)
County Funds			\$ (1,723,500)
TxDOT Funds			\$ (12,076,000)
			\$ -
	Impact F	ee Project Cost TOTAL:	\$ 3,315,000

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: Project No. **L-2** Name: Randol Mill Rd. (1) This project consists of the Limits: 500' NE of Lake Havasu Tr. to 630' W of Woodhaven Blvd. reconstruction of an existing Impact Fee Class: MA4D-B two-lane undivided asphalt **Ultimate Class:** Major Arterial facility into a four-lane divided Length (If): 4,055 major arterial. Service Area(s):

No.	No.   Item Description   Quantity   Unit   Unit Price							Item Cost
109	Unclassified Street Excavation 18,473 cy \$ 1					10.50	\$	193,964
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	27,934	sy	\$	3.00	\$	83,803
309	11" Concrete Pavement		26,132	sy	\$	44.00	\$	1,149,818
409	6" Curb & Gutter		16,220	lf	\$	6.50	\$	105,430
509	4" Topsoil		19,374	sy	\$	5.00	\$	96,869
609	4' Concrete Sidewalk		32,440	sf	\$	5.00	\$	162,200
701	Turn Lanes and Median Openings		2,931	sy	\$	44.00	\$	128,983
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,921,068
Maio	or Construction Component Allowa	ances:	_	_	-	_		
Maje	Item Description	Notes			Allo	owance	П	Item Cost
√	Prep ROW					3%	\$	57,632
	Traffic Control	Construction Phase	Traffic Control			3%	\$	57,632
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		76,843
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	576,320
	Illumination					11%	\$	216,326
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	115,264
	Sewer	Minor Adjustments				4%	\$	76,843
	Establish Turf / Erosion Control					3%	\$	57,632
	Basic Landscaping					3%	\$	57,632
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile		,	\$150,000	\$	150,000
	Other: \$0					\$	-	
	·			Allowa	nce S	Subtotal:	\$	1,442,124
			Paving an	d Allows	noo 6	Subtotali	\$	3,363,192
		Constri	raving and uction Conti			15%		504,479
		Constit	Construc	-				3,868,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,868,000
Engineering/Survey/Testing:		20%	\$ 773,600
Mobilization		5%	\$ 193,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 386,800
	Impact Fee Proje	ct Cost TOTAL:	\$ 5,222,000

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area M

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
M-1	MA4D-B	Precinct Line Rd. (1)	Trinity Railway Express (City Limits) to Trinity Blvd.	\$ 962,000
M-2	MA4D-B	Precinct Line Rd. (2)	Trinity Blvd. to Existing Randol Mill Rd.	\$ 10,837,000
M-3	MA4D-B	Precinct Line Rd. (3)	Existing Randol Mill Rd. to Future Randol Mill Rd.	\$ 500,000
M-4	M4U	Norwood Dr. (1)	65' S. of SH 10 to 750' N of Trinity Blvd.	\$ 1,754,000
M-5	M4U (1/2)	Norwood Dr. (2)	750' N of Trinity Blvd. to Trinity Blvd.	\$ 323,000
M-6	M4U	Sandy Ln. (1)	Randol Mill Rd. to Winters St.	\$ 1,051,000
M-7	M4U-B	Sandy Ln. (2)	Winters St. to John T. White Rd.	\$ 4,546,000
M-8	M4U-B	Sandy Ln. (3)	John T. White Rd. to IH-30 EB	\$ 2,773,000
M-9	MA4D-B	Cooks Ln. (1)	Future Randol Mill Rd. to Existing Cooks Ln.	\$ 4,293,000
M-10	MA4D-B	Cooks Ln. (2)	Future Cooks Ln. Alignment to Lowery Rd.	\$ 788,000
M-11	MA4D-B (1/2)	Cooks Ln. (3)	Lowery Rd. to 545' N. of Meadow View Tr.	\$ 357,000
M-12	MA4D-B (1/2)	Cooks Ln. (4)	545' N. of Meadow View Tr. To 400' N of John T. White Rd.	\$ 906,000
M-13	M4U-B	Randol Mill Rd. (2)	Stone View Circle to 125' W. of Flyaway Ln.	\$ 4,317,000
M-14	M4U-B (1/2)	Randol Mill Rd. (3)	125' W. of Flyaway Ln. to 45' E. of Goldeneye Ln.	\$ 243,000
M-15	M4U-B	Randol Mill Rd. (4)	45' E. of Goldeneye Ln. to 410' E of Existing Cooks Ln.	\$ 3,862,000
M-16	M4U-B	Randol Mill Rd. (5)	410' E of Existing Cooks Ln. to Future Precinct Line Rd.	\$ 1,752,000
M-17	M4U-B	Randol Mill Rd. (6)	Future Precinct Line Rd. to Existing Randol Mill Rd.	\$ 1,757,000
M-18	M4U-B	Randol Mill Rd. (7)	Future Randol Mill Alignment to Mill Water Dr.	\$ 2,253,000
M-19	M4U-B (1/2)	Randol Mill Rd. (8)	Mill Water Dr. to Racquet Club Dr.	\$ 483,000
M-20	M4U-B	Randol Mill Rd. (9)	John T. White Rd. to 165' SE of Winding Ln.	\$ 891,000
M-21	M4U-B (1/2)	Randol Mill Rd. Bridge	145' SE of Cottonwood Village Dr. to IH-30 EB	\$ 1,265,000
M-22	M4U	Anderson Blvd. (1)	1270' W of Williams Rd. to 1055' W of Williams Rd.	\$ 196,000
M-23	M4U	Anderson Blvd. (2)	1055' W of Williams Rd. to Sandy Ln.	\$ 2,176,000
M-24	M4U	House Anderson Rd. (4)	N City Limits to S City Limits	\$ 3,573,000
M-25	MA4D-B	Trinity Blvd. (1)	IH-820 NB to Precinct Line Rd.	\$ 11,532,000
M-26	MA4D-B	Trinity Blvd. (2)	Precinct Line Rd. to Norwood Dr.	\$ 6,570,000
M-27	MA4D-B	Trinity Blvd. (3)	Norwood Dr. to Bell Spur	\$ 4,386,000
M-28	P6D-B	Trinity Blvd. (4)	Bell Spur to 1110' W of Greenbelt Rd.	\$ 5,247,000

TOTAL \$ 79,593,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	M-1				
Name:	Precinct Line Rd. (1) Trinity Railway Express (City Limits)	This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a						
Limits:	to Trinity Blvd.	four-lane divided major arterial. TxDOT and Tarrant						
Impact Fee Class:	MA4D-B	County contributed \$3,529,000 to the construction of Precinct Line from SH 10 to Concho Trail. \$2,046,820 (58%) has been removed from this project.						
Ultimate Class:	Major Arterial							
Length (If):	1,815							
Service Area(s):	M							

<b>Roadway Construction C</b>	ost Projection					
No. Item Description		Quantity	Unit	U	nit Price	Item Cost
109 Unclassified Street Excava		8,268	су	\$	10.50	\$ 86,818
209 6" Lime Stabilization (with	Lime @ 32#/sy)	12,503	sy	\$	3.00	\$ 37,510
309 11" Concrete Pavement		11,697	sy	\$	44.00	\$ 514,653
409 6" Curb & Gutter		7,260	lf	\$	6.50	\$ 47,190
509 4" Topsoil		8,672	sy	\$	5.00	\$ 43,358
609 4' Concrete Sidewalk		14,520	sf	\$	5.00	\$ 72,600
701 Turn Lanes and Median O	penings	1,312	sy	\$	44.00	\$ 57,732
	P	aving Const	ruction (	Cost	Subtotal:	\$ 859,861
Major Construction Compone						
Item Description	Notes			Al	lowance	Item Cost
√ Prep ROW					3%	25,796
√ Traffic Control	Construction Phase	Traffic Control			3%	25,796
√ Pavement Markings/Market	Pavement Markings	with Bike Lanes	;		4%	\$ 34,394
√ Roadway Drainage	Standard Internal Sy	/stem			30%	\$ 257,958
√ Illumination					11%	\$ 96,827
√ Special Drainage Structure	Major Stream Cross	ing		\$	500,000	\$ 500,000
√ Water	Minor Adjustments				6%	\$ 51,592
√ Sewer	Minor Adjustments				4%	\$ 34,394
√ Establish Turf / Erosion Co	ntrol				3%	\$ 25,796
√ Basic Landscaping					3%	\$ 25,796
Intersections (Signal, Roundabou	t, etc.) None Anticipated				\$0	\$ -
Other:				\$0	\$ -	
			Allowa	ınce	Subtotal:	\$ 1,078,349
		Paving an			Subtotal:	\$ 1,938,210
	Constr	uction Conti			15%	\$ 290,732
		Constru	ction C	ost	TOTAL:	\$ 2,229,000

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,229,000
Engineering/Survey/Testing:		20%	\$ 445,800
Mobilization		5%	\$ 111,450
Previous City contribution			\$ -
Other	Tarrant County Bond & TxDOT contribution		\$ (2,046,820)
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 222,900
4	Impact Fee Project C	ost TOTAL:	\$ 962,000

**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.

10/2/2012

updated:

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Project Information:** M-2 Description: Project No. Name: Precinct Line Rd. (2) This project consists of the reconstruction of an Limits: Trinity Blvd. to Existing Randol Mill Rd existing two-lane undivided asphalt facility into a Impact Fee Class: MA4D-B four-lane divided major arterial. TxDOT and Tarrant **Ultimate Class:** Major Arterial County contributed \$3,529,000 to the construction Length (If): 9,175 of Precinct Line from SH 10 to Concho Trail. Service Area(s): M \$1,482,180 (42%) has been removed from this project.

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	41,797	су	\$	10.50	\$ 438,871
209	6" Lime Stabilization (with Lime @ 32#/sy)	63,206	sy	\$	3.00	\$ 189,617
309	11" Concrete Pavement	59,128	sy	\$	44.00	\$ 2,601,622
409	6" Curb & Gutter	36,700	lf	\$	6.50	\$ 238,550
509	4" Topsoil	43,836	sy	\$	5.00	\$ 219,181
609	4' Concrete Sidewalk	73,400	sf	\$	5.00	\$ 367,000
701	Turn Lanes and Median Openings	6,633	sy	\$	44.00	\$ 291,841
		Paving Constr	uction (	Cost	Subtotal:	\$ 4,346,682

		Paving Construction C	Cost Subtotal:	\$ 4,346,682
Maio	or Construction Component Allow			
maj	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 130,400
$\checkmark$	Traffic Control	Construction Phase Traffic Control	3%	\$ 130,400
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 173,867
	Roadway Drainage	Standard Internal System	30%	\$ 1,304,005
	Illumination		11%	\$ 489,468
	Special Drainage Structures	Trinity River Crossing	\$ 500,000	\$ 500,000
	Water	Minor Adjustments	6%	\$ 260,801
	Sewer	Minor Adjustments	4%	\$ 173,867
	Establish Turf / Erosion Control		3%	\$ 130,400
	Basic Landscaping		3%	\$ 130,400
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 450,000
	Other:			
		Allowa	nce Subtotal:	\$ 3,873,610
		Paving and Allowa	nce Subtotal:	\$ 8,220,292
		Construction Contingency:	15%	\$ 1,233,044
		Construction C	ost TOTAL:	\$ 9,454,000

	-	\$	0.454.000
		Ψ	9,454,000
	20%	\$	1,890,800
	5%	\$	472,700
rant County Bond & TxDOT contribution		\$	(1,482,180)
ecial Assessment Funds		\$	(444,000)
sting Alignment	10%	\$	945,400
E	cial Assessment Funds sting Alignment	rant County Bond & TxDOT contribution cial Assessment Funds sting Alignment 10%	rant County Bond & TxDOT contribution \$ scial Assessment Funds \$

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. M-3

Name: Precinct Line Rd. (3) This project consists of the

Limits: Existing Randol Mill Rd. to Future Randol Mill Rd. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 385 Service Area(s): M

No.	Item Description	_	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		1,754	су	\$	10.50	\$	18,416
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	2,652	sy	\$	3.00	\$	7,957
309	11" Concrete Pavement		2,481	sy	\$	44.00	\$	109,169
409	6" Curb & Gutter		1,540	lf	\$	6.50	\$	10,010
509	4" Topsoil		1,839	sy	\$	5.00	\$	9,197
609	4' Concrete Sidewalk		3,080	sf	\$	5.00	\$	15,400
701	Turn Lanes and Median Openings		278	sy	\$	44.00	\$	12,246
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	182,395
Majo	or Construction Component Allows	-						
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%		5,472
	Traffic Control	None Anticipated				0%	\$	-
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	7,296
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem			30%	\$	54,718
	Illumination					11%	\$	20,539
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	10,944
	Sewer	Minor Adjustments				4%	\$	7,296
	Establish Turf / Erosion Control					3%	\$	5,472
	Basic Landscaping					3%		5,472
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
				Allowa	nce	Subtotal:	\$	117,208

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 345,000
Engineering/Survey/Testing:		20%	\$ 69,000
Mobilization		5%	\$ 17,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 69,000
	\$ 500,000		

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

**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.

\$

299,603

44,940

345,000

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information: Description: Project No. M-4
Name: Norwood Dr. (1) This project consists of the

Limits: 65' S. of SH 10 to 750' N of Trinity Blvd.

Impact Fee Class: M4U
Ultimate Class: Minor Arterial

Length (If): 1,650
Service Area(s): M

reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	5,317	су	\$	10.50	\$ 55,825
206	6" Lime Stabilization (with Lime @ 32#/sy)	10,450	sy	\$	3.00	\$ 31,350
306	9" Concrete Pavement	10,083	sy	\$	36.00	\$ 363,000
406	6" Curb & Gutter	3,300	lf	\$	6.50	\$ 21,450
506	4" Topsoil	2,750	sy	\$	5.00	\$ 13,750
606	4' Concrete Sidewalk	13,200	sf	\$	5.00	\$ 66,000
701	Turn Lanes and Median Openings	0				
		Paving Consti	ruction (	Cost	Subtotal:	\$ 551,375

		Turning Contention (	Joor Gubroran	•	001,010		
Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	16,541		
	Traffic Control	Construction Phase Traffic Control	3%	\$	16,541		
	Pavement Markings/Markers		2%	\$	11,836		
	Roadway Drainage	Standard Internal System	30%	\$	165,413		
	Illumination		11%	\$	62,089		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	33,083		
	Sewer	Minor Adjustments	4%	\$	22,055		
	Establish Turf / Erosion Control		3%	\$	16,541		
	Basic Landscaping		3%	\$	16,541		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
	Other:	Railroad Crossing	\$250,000	\$	250,000		
		Allowa	nce Subtotal:	\$	610,640		
Paving and Allowance Subtotal:					1,162,015		
Construction Contingency: 15%				\$	136,802		
Construction Cost TOTAL:				\$	1,299,000		

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	1,299,000		
Engineering/Survey/Testing:		20%	\$	259,800		
Mobilization		5%	\$	64,950		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	129,900		
Impact Fee Project Cost TOTAL:				1,754,000		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50

10/2/2012 updated:

**Item Cost** 

12,688

**Project Information:** M-5 Description: Project No. Name: Norwood Dr. (2) This project consists of the widening of a two-lane Limits: 750' N of Trinity Blvd. to Trinity Blvd. undivided concrete facility into a four-lane

undivided minor arterial.

Unit

су

Quantity

1,208

Impact Fee Class: M4U (1/2)

104 Unclassified Street Excavation

Length (If): 750 Service Area(s): M

No. Item Description

**Ultimate Class:** Minor Arterial

7,125 82,500 4,875 3,125 15,000
4,875 3,125
3,125
· ·
15,000
. 0,000
125,313
Item Cost
3,759
3,759
2,690
37,594
14,111
-
7,519
5,013
3,759
3,759
-
-
81,964
207,276
31,091
239,000

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	239,000		
Engineering/Survey/Testing:		20%	\$	47,800		
Mobilization		5%	\$	11,950		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	23,900		
Impact Fee Project Cost TOTAL:			\$	323,000		

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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:Description:Project No.M-6Name:Sandy Ln. (1)This project consists of the construction of a new

Limits: Randol Mill Rd. to Winters St. four-lane undivided minor arterial.

Impact Fee Class: M4U

Ultimate Class: Minor Arterial

Length (If): 700 Service Area(s): M

Roa	Roadway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Unit Price		Item Cost		
106	Unclassified Street Excavation	2,256	су	\$	10.50	\$	23,683	
206	6" Lime Stabilization (with Lime @ 32#/sy)	4,433	sy	\$	3.00	\$	13,300	
306	9" Concrete Pavement	4,278	sy	\$	36.00	\$	154,000	
406	6" Curb & Gutter	1,400	lf	\$	6.50	\$	9,100	
506	4" Topsoil	1,167	sy	\$	5.00	\$	5,833	
606	4' Concrete Sidewalk	5,600	sf	\$	5.00	\$	28,000	
701	Turn Lanes and Median Openings	0						
Paving Construction Cost Subtotal: \$					233,917			

Maian Canadanadian Canananan and Allan			_	
Major Construction Component Allov Item Description	Notes	Allowance	ŀ	tem Cost
√ Prep ROW		3%	\$	7,018
Traffic Control	None Anticipated	0%	\$	-
√ Pavement Markings/Markers		2%	\$	5,021
√ Roadway Drainage	Standard Internal System	30%	\$	70,175
$\sqrt{}$ Illumination		11%	\$	26,341
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000
√ Water	Minor Adjustments	6%	\$	14,035
√ Sewer	Minor Adjustments	4%	\$	9,357
√ Establish Turf / Erosion Control		3%	\$	7,018
√ Basic Landscaping		3%	\$	7,018
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
Other:		\$0	\$	_
	\$	395,981		
	•	600 600		
	<b>\$</b> \$	629,898		
Construction Contingency: 15% Construction Cost TOTAL:				94,485
	\$	725,000		

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	725,000		
Engineering/Survey/Testing:		20%	\$	145,000		
Mobilization		5%	\$	36,250		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	145,000		
Impact Fee Project Cost TOTAL:				1,051,000		

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Sandy Ln. (2)
Limits:
Winters St. to John T. White Rd.
Impact Fee Class:
M4U-B

Description:
Project No.
M-7

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Ultimate Class: Minor Arterial 4,850
Service Area(s): M

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	16,167	су	\$	10.50	\$ 169,750
207	6" Lime Stabilization (with Lime @ 32#/sy)	31,794	sy	\$	3.00	\$ 95,383
307	9" Concrete Pavement	30,717	sy	\$	36.00	\$ 1,105,800
407	6" Curb & Gutter	9,700	lf	\$	6.50	\$ 63,050
507	4" Topsoil	7,006	sy	\$	5.00	\$ 35,028
607	4' Concrete Sidewalk	38,800	sf	\$	5.00	\$ 194,000
701	Turn Lanes and Median Openings	0				
	Р	aving Constr	uction (	Cost S	Subtotal:	\$ 1,663,011

Major Construction Component Allov Item Description	vances: Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 49,890
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 49,890
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 66,520
√ Roadway Drainage	Standard Internal System	30%	\$ 498,903
$\sqrt{}$ Illumination		11%	\$ 187,267
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 99,781
√ Sewer	Minor Adjustments	4%	\$ 66,520
√ Establish Turf / Erosion Control		3%	\$ 49,890
√ Basic Landscaping		3%	\$ 49,890
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:			
	Allov	wance Subtotal:	\$ 1,268,553
	Paving and Allov		
	2,931,565		
	\$ 439,735		
	Construction	Cost TOTAL:	\$ 3,372,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,372,000			
Engineering/Survey/Testing:		20%	\$	674,400			
Mobilization		5%	\$	168,600			
Previous City contribution			\$	-			
Other	CFA# 2007070		\$	(6,389)			
ROW/Easement Acquisition:	Existing Alignment	10%	\$	337,200			
	Impact Fee Project Cost TOTAL:						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	M-8				
Name:	Sandy Ln. (3)	This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial. This includes widening a 165' bridge section over IH-30.						
Limits:	John T. White Rd. to IH-30 EB							
Impact Fee Class:	M4U-B							
Ultimate Class:	Minor Arterial							
Length (If):	2,355							
Service Area(s):	M							

No.	No. Item Description Quantity Unit			Un	it Price		Item Cost	
107	Unclassified Street Excavation		7,850	су	\$	10.50	\$	82,425
207	6" Lime Stabilization (with Lime @ 32#/sy) 15,438 sy			\$	3.00	\$	46,315	
307	7 9" Concrete Pavement 14,915 sy			\$	36.00	\$	536,940	
407	6" Curb & Gutter		4,710	lf	\$	6.50	\$	30,615
507	4" Topsoil		3,402	sy	\$	5.00	\$	17,008
607	4' Concrete Sidewalk		18,840	sf	\$	5.00	\$	94,200
701	Turn Lanes and Median Openings		0					
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$	807,503
Majo	or Construction Component Allows							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		24,225
	Traffic Control	Construction Phase	Traffic Control			3%		24,225
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		32,300
	Roadway Drainage	Standard Internal Sy	stem			30%		242,251
	Illumination					11%	\$	90,931
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		48,450
	Sewer	Minor Adjustments				4%		32,300
√,	Establish Turf / Erosion Control					3%		24,225
V	Basic Landscaping					3%	\$	24,225
,	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	
√	+			_	500,000			
Allowance Subtotal:						\$	1,043,133	
Paving and Allowance Subtotal:							1,850,636	
Construction Contingency: 15%						-	202,595	
	Construction Cost TOTAL:						\$	2,054,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,054,000			
Engineering/Survey/Testing:		20%	\$	410,800			
Mobilization		5%	\$	102,700			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	205,400			
	\$	2,773,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. M-9
Name: Cooks Ln. (1) This project consists of the

Limits: Future Randol Mill Rd. to Existing Cooks Ln. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 3,115 Service Area(s): M

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	14,191	су	\$	10.50	\$ 149,001
209	6" Lime Stabilization (with Lime @ 32#/sy)	21,459	sy	\$	3.00	\$ 64,377
309	11" Concrete Pavement	20,074	sy	\$	44.00	\$ 883,276
409	6" Curb & Gutter	12,460	lf	\$	6.50	\$ 80,990
509	4" Topsoil	14,883	sy	\$	5.00	\$ 74,414
609	4' Concrete Sidewalk	24,920	sf	\$	5.00	\$ 124,600
701	Turn Lanes and Median Openings	2,252	sy	\$	44.00	\$ 99,083

Paving Construction Cost Subtotal: \$ 1,475,740

Majo	or Construction Component Allow	ances:		
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 44,272
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 59,030
	Roadway Drainage	Standard Internal System	30%	\$ 442,722
	Illumination		11%	\$ 166,179
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 88,544
	Sewer	Minor Adjustments	4%	\$ 59,030
	Establish Turf / Erosion Control		3%	\$ 44,272
	Basic Landscaping		3%	\$ 44,272
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
	Other:		\$0	\$ -
		Allowa	nce Subtotal:	\$ 1,098,321
		Paving and Allowa	nce Subtotal:	\$ 2,574,061
		Construction Contingency:	15%	\$ 386,109
		Construction C	ost TOTAL:	\$ 2,961,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	2,961,000				
Engineering/Survey/Testing:		20%	\$	592,200				
Mobilization		5%	\$	148,050				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	592,200				
	\$	4,293,000						

**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.

**Project Information:** 

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Description: Project No. M-10

Name: Cooks Ln. (2) This project consists of the

Limits: Future Cooks Ln. Alignment to Lowery Rd. reconstruction of an existing two-lane undivided asphalt facility into a four-

Ultimate Class: Major Arterial lane divided major arterial.

Length (If): 640 Service Area(s): M

Roa	dway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		2,916	су	\$	10.50	\$	30,613
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	4,409	sy	\$	3.00	\$	13,227
309	11" Concrete Pavement		4,124	sy	\$	44.00	\$	181,476
409	6" Curb & Gutter		2,560	lf	\$	6.50	\$	16,640
509	4" Topsoil		3,058	sy	\$	5.00	\$	15,289
609	4' Concrete Sidewalk		5,120	sf	\$	5.00	\$	25,600
701	Turn Lanes and Median Openings		463	sy	\$	44.00	\$	20,357
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	303,202
Majo	or Construction Component Allows							
	Item Description	Notes			All	owance		Item Cost
1	Prep ROW					3%		9,096
1	Traffic Control	Construction Phase				3%		9,096
1	Pavement Markings/Markers	Pavement Markings				4%		12,128
1	Roadway Drainage	Standard Internal Sy	stem			30%		90,961
	Illumination					11%		34,143
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
1	Water	Minor Adjustments				6%		18,192
1	Sewer	Minor Adjustments				4%		12,128
1	Establish Turf / Erosion Control					3%		9,096
1	Basic Landscaping					3%		9,096
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:						\$	
	Allowance Subtotal:							203,936
	Paving and Allowance Subtotal:							507,138
		Constru	uction Conti	ngency:		15%	\$	76,071
			Constru	ction C	ost	TOTAL:	\$	584,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	584,000			
Engineering/Survey/Testing:		20%	\$	116,800			
Mobilization		5%	\$	29,200			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	58,400			
	\$	788,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: Project No. M-11 Name: Cooks Ln. (3) This project consists of the widening of Limits: Lowery Rd. to 545' N. of Meadow View Tr. an existing three-lane undivided Impact Fee Class: MA4D-B (1/2) concrete facility into a four-lane divided **Ultimate Class:** Major Arterial major arterial. Length (If): 940 Service Area(s): M

	Item Description		Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		2,193	су	\$	10.50	\$	23,030
211	6" Lime Stabilization (with Lime @ 3	32#/sy)	3,238	sy	\$	3.00	\$	9,713
311	11" Concrete Pavement	• /	3,029	sy	\$	44.00	\$	133,271
411	6" Curb & Gutter		2,820	lf	\$	6.50	\$	18,330
511	4" Topsoil		3,394	sy	\$	5.00	\$	16,972
611	4' Concrete Sidewalk		3,760	sf	\$	5.00	\$	18,800
701	Turn Lanes and Median Openings		680	sy	\$	44.00	\$	29,900
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	250,017
Majo	or Construction Component Allow							
	Item Description	Notes			Alle	owance		Item Cost
√.	Prep ROW					3%		7,500
	Traffic Control	Construction Phase	Traffic Control			3%		7,500
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	-	10,001
√.	Roadway Drainage	Standard Internal Sy	stem			30%		75,005
	Illumination					11%	\$	28,154
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	15,001
	Sewer	Minor Adjustments				4%		10,001
	Establish Turf / Erosion Control					3%		7,500
	Basic Landscaping					3%		7,500
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other: \$0				,	-		
				Allowa	nce S	Subtotal:	\$	168,163
			Paving an				\$	418,179
		Constru	uction Conti			15%		62,727
			Constru	ction C	ost 7	TOTAL:	\$	481,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	481,000			
Engineering/Survey/Testing:		20%	\$	96,200			
Mobilization		5%	\$	24,050			
Previous City contribution			\$	-			
Other	CFA# 99074		\$	(292,383)			
ROW/Easement Acquisition:	Existing Alignment	10%	\$	48,100			
	\$	357,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: Project No. M-12 Name: Cooks Ln. (4) This project consists of the Limits: 545' N. of Meadow View Tr. To 400' N of John T. White Rd. widening of a two-lane Impact Fee Class: MA4D-B (1/2) undivided concrete facility into **Ultimate Class:** Major Arterial a four-lane divided major Length (If): 1,310 arterial. Service Area(s): M

	dway Construction Cost Pro	ojection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		3,057	су	\$	10.50	\$	32,095
211	6" Lime Stabilization (with Lime @ :	32#/sy)	4,512	sy	\$	3.00	\$	13,537
311	11" Concrete Pavement		4,221	sy	\$	44.00	\$	185,729
411	6" Curb & Gutter		3,930	lf	\$	6.50	\$	25,545
511	4" Topsoil		4,731	sy	\$	5.00	\$	23,653
611	4' Concrete Sidewalk		5,240	sf	\$	5.00	\$	26,200
701	Turn Lanes and Median Openings		947	sy	\$	44.00	\$	41,669
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	348,427
Majo	or Construction Component Allow							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		10,453
	Traffic Control	Construction Phase	Traffic Control			3%		10,453
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		13,937
	Roadway Drainage	Standard Internal Sy	stem			30%		104,528
	Illumination					11%	\$	39,235
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		20,906
	Sewer	Minor Adjustments				4%		13,937
	Establish Turf / Erosion Control					3%		10,453
	Basic Landscaping					3%	\$	10,453
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other: \$0					-		
				Allowa	nce S	Subtotal:	\$	234,355
			Paving an					582,782
		Constru	uction Conti			15%	-	87,417
	Construction Cost TOTAL:						\$	671,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	671,000			
Engineering/Survey/Testing:		20%	\$	134,200			
Mobilization		5%	\$	33,550			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	67,100			
	\$	906,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: M-13 Project No. Name: Randol Mill Rd. (2) This project consists of the Limits: Stone View Circle to 125' W. of Flyaway Ln. reconstruction of an existing two-lane Impact Fee Class: M4U-B undivided asphalt facility into a four-**Ultimate Class:** Minor Arterial lane undivided minor arterial. Length (If): 4,150 Service Area(s): M

No.	No.   Item Description   Quantity   Unit			Un	it Price		Item Cost	
107	Unclassified Street Excavation		13,833	су	\$	10.50	\$	145,250
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	27,206	sy	\$	3.00	\$	81,617
307	9" Concrete Pavement		26,283	sy	\$	36.00	\$	946,200
407	6" Curb & Gutter		8,300	lf	\$	6.50	\$	53,950
507	4" Topsoil		5,994	sy	\$	5.00	\$	29,972
607	4' Concrete Sidewalk		33,200	sf	\$	5.00	\$	166,000
701	Turn Lanes and Median Openings		0					
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	1,422,989
Majo	or Construction Component Allow							
	Item Description	Notes			All	owance		Item Cost
V	Prep ROW					3%		42,690
V	Traffic Control	Construction Phase	Traffic Control			3%		42,690
V	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		56,920
√,	Roadway Drainage	Standard Internal Sy	stem			30%	-	426,897
√,	Illumination					11%	\$	160,239
V	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
V	Water	Minor Adjustments				6%		85,379
√,	Sewer	Minor Adjustments				4%		56,920
√,	Establish Turf / Erosion Control					3%		42,690
√,	Basic Landscaping					3%		42,690
√	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000		150,000
	Other: \$0					-		
Allowance Subtotal:							\$	1,357,113
			Paving an					2,780,102
		Constru	uction Conti	-		15%	*	417,015
Construction Cost TOTAL:						\$	3,198,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,198,000			
Engineering/Survey/Testing:		20%	\$	639,600			
Mobilization		5%	\$	159,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	319,800			
	\$	4,317,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Item Cost

180,000

Project Information:

Name:

Limits:
Impact Fee Class:
Ultimate Class:

Randol Mill Rd. (3)

Randol Mill Rd. (3)

125' W. of Flyaway Ln. to 45' E. of Goldeneye Ln.
M4U-B (1/2)
Minor Arterial

Project No. M-14

This project consists of the widening of a two-lane undivided concrete facility into a four-lane undivided minor arterial.

Quantity Unit Unit Price

**Construction Cost TOTAL** 

Length (If): 545 Service Area(s): M

No. Item Description

NO.	item bescription		Quantity	Oill	5	IL FIICE	item Cost
105	Unclassified Street Excavation		908	су	\$	10.50	\$ 9,538
205	6" Lime Stabilization (with Lime @ 3	32#/sy)	1,786	sy	\$	3.00	\$ 5,359
305	9" Concrete Pavement		1,726	sy	\$	36.00	\$ 62,130
405	6" Curb & Gutter		545	lf	\$	6.50	\$ 3,543
505	4" Topsoil		394	sy	\$	5.00	\$ 1,968
605	4' Concrete Sidewalk		2,180	sf	\$	5.00	\$ 10,900
701	Turn Lanes and Median Openings		0				
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 93,437
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			Allo	owance	Item Cost
<b>V</b>	Prep ROW					3%	\$ 2,803
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 2,803
	Pavement Markings/Markers	Pavement Markings with Bike Lanes				4%	\$ 3,737
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 28,031
	Illumination					11%	\$ 10,522
l .	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 5,606
	Sewer	Minor Adjustments				4%	\$ 3,737
$\sqrt{}$	Establish Turf / Erosion Control					3%	\$ 2,803
	Basic Landscaping					3%	\$ 2,803
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	\$ -
Allowance Subtotal:							\$ 62,847
			Paving an				\$ 156,284
		Constru	uction Conti	ngency:		15%	\$ 23,443

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	180,000			
Engineering/Survey/Testing:		20%	\$	36,000			
Mobilization		5%	\$	9,000			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	18,000			
	\$	243,000					

**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.

No. Item Description

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Item Cost** 

**Unit Price** 

Project Information	tion:	escription:	Project No.	M-15
Name:	Randol Mill Rd. (4)		This project cons	sists of the
Limits: 45' E. of Goldeneye Ln. to 410' E of		sting Cooks Ln.	reconstruction of	f an existing
Impact Fee Class:	M4U-B		two-lane undivide	ed asphalt
Ultimate Class:	Minor Arterial		facility into a four	r-lane
Length (If):	3,640		undivided minor	
Service Area(s):	M			

Quantity

Unit

107	Unclassified Street Excavation		12,133	cy	\$	10.50	\$	127,400
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	23,862	sy	\$	3.00	\$	71,587
307	9" Concrete Pavement		23,053	sy	\$	36.00	\$	829,920
407	6" Curb & Gutter		7,280	lf	\$	6.50	\$	47,320
507	4" Topsoil		5,258	sy	\$	5.00	\$	26,289
607	4' Concrete Sidewalk		29,120	sf	\$	5.00	\$	145,600
701	Turn Lanes and Median Openings		0					
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	1,248,116
Majo	or Construction Component Allow							
	Item Description	Notes			All	owance		Item Cost
√.	Prep ROW					3%		37,443
√.	Traffic Control	Construction Phase	Traffic Control			3%		37,443
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		49,925
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%		374,435
√.	Illumination					11%	\$	140,547
$\sqrt{}$	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
$\sqrt{}$	Water	Minor Adjustments				6%	\$	74,887
$\sqrt{}$	Sewer	Minor Adjustments				4%		49,925
$\sqrt{}$	Establish Turf / Erosion Control					3%		37,443
$\sqrt{}$	Basic Landscaping					3%		37,443
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					\$0	,	-
Allowance Subtotal:								1,239,492
			Paving and					2,487,607
		Constru	uction Conti	-		15%		373,141
			Construc	ction C	ost	TOTAL:	\$	2,861,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,861,000			
Engineering/Survey/Testing:		20%	\$	572,200			
Mobilization		5%	\$	143,050			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	286,100			
	\$	3,862,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Project No. M-16

This project consists of the construction of a new four-lane undivided minor arterial.

Quantity

Unit

**Unit Price** 

Length (If): 1,865 Service Area(s): M

No. Item Description

107	Unclassified Street Excavation		6,217	су	\$	10.50	\$	65,275
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	12,226	sy	\$	3.00	\$	36,678
307	9" Concrete Pavement		11,812	sy	\$	36.00	\$	425,220
407	6" Curb & Gutter		3,730	lf	\$	6.50	\$	24,245
507	4" Topsoil		2,694	sy	\$	5.00	\$	13,469
	4' Concrete Sidewalk		14,920	sf	\$	5.00	\$	74,600
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	639,488
Majo	or Construction Component Allow							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	-	19,185
l .	Traffic Control	None Anticipated				0%		-
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%		25,580
√.	Roadway Drainage	Standard Internal Sy	stem			30%	\$	191,846
	Illumination					11%	\$	72,011
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		38,369
	Sewer	Minor Adjustments				4%		25,580
	Establish Turf / Erosion Control					3%		19,185
	Basic Landscaping					3%		19,185
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0		-
Allowance Subtotal:								410,940
			Paving an					1,050,427
		Constru	uction Conti			15%	-	157,564
Construction Cost TOTAL:							\$	1,208,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,208,000				
Engineering/Survey/Testing:		20%	\$	241,600				
Mobilization		5%	\$	60,400				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	241,600				
	\$	1,752,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

Quantity Unit

10/2/2012 updated:

**Item Cost** 

1,212,000

**Project Information:** Description: M-17 Project No. Name: Randol Mill Rd. (6) This project consists of the Limits: Future Precinct Line Rd. to Existing Randol Mill Rd. construction of a new four-lane Impact Fee Class: M4U-B undivided minor arterial. **Ultimate Class:** Minor Arterial

Length (If): 1,870 Service Area(s): M

No. Item Description

107	Unclassified Street Excavation		6,233	су	\$	10.50	\$	65,450
207	6" Lime Stabilization (with Lime @ 32#/sy) 12,259 sy			\$	3.00	\$	36,777	
307	9" Concrete Pavement		11,843	sy	\$	36.00	\$	426,360
407	6" Curb & Gutter		3,740	lf	\$	6.50	\$	24,310
507	4" Topsoil		2,701	sy	\$	5.00	\$	13,506
607	4' Concrete Sidewalk		14,960	sf	\$	5.00	\$	74,800
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	641,202
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
V	Prep ROW					3%		19,236
	Traffic Control	None Anticipated				0%	\$	-
V	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		25,648
V	Roadway Drainage	Standard Internal Sy	stem			30%		192,361
V	Illumination					11%	\$	72,204
<b>1</b> ,	Special Drainage Structures	None Anticipated			\$	-	\$	-
V	Water	Minor Adjustments				6%		38,472
V	Sewer	Minor Adjustments				4%		25,648
V	Establish Turf / Erosion Control					3%		19,236
V	Basic Landscaping					3%		19,236
	Intersections (Signal, Roundabout, etc.)				\$0		-	
	Other: \$0					-		
	Allowance Subtotal:						\$	412,041
							\$	
	Paving and Allowance Subtotal:							1,053,243
	Construction Contingency: 15%						\$	157,987

Impact Fee Project Cost Sum			
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,212,000
Engineering/Survey/Testing:		20%	\$ 242,400
Mobilization		5%	\$ 60,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 242,400
	\$ 1,757,000		

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.

**Construction Cost TOTAL:** 

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>			Project No.	M-18				
Name:	Randol Mill Rd. (7)		This project consists of t	he				
Limits:	Future Randol Mill Alignment to Mill W	ater Dr.	reconstruction of an existing two-lane					
Impact Fee Class:	M4U-B		undivided asphalt facility into a four-					
Ultimate Class:	Minor Arterial		lane undivided minor arte	erial.				
Length (If):	2,530							
Service Area(s):	M							

No.	No.   Item Description   Quantity   Unit   Unit Price						Item Cost	
107	Unclassified Street Excavation		8,433	су	\$	10.50	\$	88,550
207	7 6" Lime Stabilization (with Lime @ 32#/sy) 16,586 sy			\$	3.00	\$	49,757	
307	9" Concrete Pavement		16,023	sy	\$	36.00	\$	576,840
407	6" Curb & Gutter		5,060	lf	\$	6.50	\$	32,890
507	4" Topsoil		3,654	sy	\$	5.00	\$	18,272
607	4' Concrete Sidewalk		20,240	sf	\$	5.00	\$	101,200
701	Turn Lanes and Median Openings		0					
		Pa	ving Const	ruction (	Cost	Subtotal:	\$	867,509
Maio	or Construction Component Allowa	20001	_	_	_	_		
IVIajo	Item Description	Notes			ΔII	owance		Item Cost
2/	Prep ROW	Notes			All	3%	\$	26,025
V	Traffic Control	Construction Phase	Fraffic Control			3%		26,025
V	Pavement Markings/Markers	Pavement Markings				4%		34,700
V	Roadway Drainage	Standard Internal Sys				30%		260,253
Ì	Illumination	Standard Internal Sys	Sterri			11%		97,688
'	Special Drainage Structures	None Anticipated			\$	-	\$	
	Water	Minor Adjustments			Ψ	6%	\$	52,051
$\sqrt{}$	Sewer	Minor Adjustments				4%		34,700
$\sqrt{}$	Establish Turf / Erosion Control	Willion Augustinionts				3%		26,025
į	Basic Landscaping					3%		26,025
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	
	Other: Solutions (Signal, Noundabout, etc.)				-	-		
Allowance Subtotal:						\$	583,493	
			Paving an					1,451,002
		Constru	ıction Conti			15%	\$	217,650
Construction Cost TOTAL:							\$	1,669,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,669,000				
Engineering/Survey/Testing:		20%	\$	333,800				
Mobilization		5%	\$	83,450				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	166,900				
	Impact Fee Project Cost TOTAL:							

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. M-19

Name: Randol Mill Rd. (8)
Limits: Mill Water Dr. to Racquet Club Dr.

Description: Project No. M-19

This project consists of the widening of a two-lane undivided concrete facility into a four-lane

undivided minor arterial.

Impact Fee Class: M4U-B (1/2)
Ultimate Class: Minor Arterial

Length (If): 1,085 Service Area(s): M

Roa	dway Construction Cost Projection										
No.	Item Description	Quantity	Unit L		Quantity Unit		Unit Price		Unit Price		Item Cost
105	Unclassified Street Excavation	1,808	су	\$	10.50	\$	18,988				
205	6" Lime Stabilization (with Lime @ 32#/sy)	3,556	sy	\$	3.00	\$	10,669				
305	9" Concrete Pavement	3,436	sy	\$	36.00	\$	123,690				
405	6" Curb & Gutter	1,085	lf	\$	6.50	\$	7,053				
505	4" Topsoil	784	sy	\$	5.00	\$	3,918				
605	4' Concrete Sidewalk	4,340	sf	\$	5.00	\$	21,700				
701	Turn Lanes and Median Openings	0									

Paving Construction Cost Subtotal: \$ 186,017

Item Description	Notes	Allowance	ŀ	tem Cost
√ Prep ROW		3%	\$	5,581
√ Traffic Control	Construction Phase Traffic Control	3%	\$	5,581
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	7,441
√ Roadway Drainage	Standard Internal System	30%	\$	55,805
√ Illumination		11%	\$	20,947
Special Drainage Structures	None Anticipated	\$ -	\$	-
Water	Minor Adjustments	6%	\$	11,161
√ Sewer	Minor Adjustments	4%	\$	7,441
√ Establish Turf / Erosion Control		3%	\$	5,581
√ Basic Landscaping		3%	\$	5,581
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
Other:		\$0	\$	-
	Allow	/ance Subtotal:	\$	125,117
	\$	311,134		
	\$	46,670		
	Construction (	Cost TOTAL:	\$	358,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	358,000				
Engineering/Survey/Testing:		20%	\$	71,600				
Mobilization		5%	\$	17,900				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	35,800				
	\$	483,000						

**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.

**Project Information:** 

Name:

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. 10/2/2012 updated:

M-20 Description: Project No.

Randol Mill Rd. (9) Limits: John T. White Rd. to 165' SE of Winding Ln.

Impact Fee Class: M4U-B **Ultimate Class:** Minor Arterial

Length (If): 1,000 Service Area(s): M

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a fourlane undivided minor arterial.

**Roadway Construction Cost Projection** No. Item Description Quantity Unit **Unit Price Item Cost** 107 Unclassified Street Excavation 3,333 су \$ 10.50 35,000 207 6" Lime Stabilization (with Lime @ 32#/sy) 6,556 \$ 3.00 \$ 19,667 sy 307 9" Concrete Pavement 6.333 \$ 36.00 \$ 228,000 sy 6" Curb & Gutter 407 2,000 lf \$ 6.50 \$ 13,000 507 4" Topsoil \$ 7,222 1,444 \$ 5.00 sy 607 4' Concrete Sidewalk 8,000 \$ 40,000 sf \$ 5.00 701 Turn Lanes and Median Openings

342,889 Paving Construction Cost Subtotal: \$

Mai	or Construction Component Allow	ances:				
	Item Description	Notes	Allowance	П	Item Cost	
	Prep ROW		3%	\$	10,287	
$\checkmark$	Traffic Control	Construction Phase Traffic Control	3%	\$	10,287	
$\checkmark$	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	13,716	
$\checkmark$	Roadway Drainage	Standard Internal System	30%	\$	102,867	
$\checkmark$	Illumination		11%	\$	38,612	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	20,573	
	Sewer	Minor Adjustments	4%	\$	13,716	
	Establish Turf / Erosion Control		3%	\$	10,287	
	Basic Landscaping		3%	\$	10,287	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:		\$0	\$	-	
		Allowa	ince Subtotal:	\$	230,630	
		Paving and Allowa		\$	573,518	
	Construction Contingency: 15%					
		Construction C	ost TOTAL:	\$	660,000	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	660,000				
Engineering/Survey/Testing:		20%	\$	132,000				
Mobilization		5%	\$	33,000				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	66,000				
	\$	891,000						

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Informat	tion:	Description:	Project No. M-21
Name:	Randol Mill Rd. Bridge		This project consists of the widening of
Limits:	145' SE of Cottonwood Village Dr. to IH	I-30 EB	a two-lane undivided concrete facility
Impact Fee Class:	M4U-B (1/2)		into a four-lane undivided minor arterial.
Ultimate Class:	Minor Arterial		This includes widening a 245' bridge
Length (If):	565		section over IH-30.
Service Area(s):	M		

	Item Description	Jection	Quantity	Unit	Un	it Price		Item Cost
	Unclassified Street Excavation		942	су	\$	10.50	\$	9,888
205				\$	3.00	\$	5,556	
	9" Concrete Pavement	,,	1,789	sy	\$	36.00	\$	64,410
405	6" Curb & Gutter		565	lf	\$	6.50	\$	3,673
505	4" Topsoil		408	sy	\$	5.00	\$	2,040
	4' Concrete Sidewalk		2,260	sf	\$	5.00	\$	11,300
701	Turn Lanes and Median Openings		0					•
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	96,866
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Allo	owance		Item Cost
√.	Prep ROW					3%		2,906
	Traffic Control	Construction Phase	Traffic Control			3%	\$	2,906
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	3,875
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	29,060
	Illumination					11%	\$	10,908
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	5,812
	Sewer	Minor Adjustments				4%	\$	3,875
	Establish Turf / Erosion Control					3%	\$	2,906
$\checkmark$	Basic Landscaping					3%	\$	2,906
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	√ Other: IH-30 Bridge \$750,000				_	750,000		
Allowance Subtotal:						\$	815,153	
			Paving an					912,019
		Constru	uction Conti			15%	*	24,303
			Construc	ction C	ost 1	OTAL:	\$	937,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	937,000				
Engineering/Survey/Testing:		20%	\$	187,400				
Mobilization		5%	\$	46,850				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	93,700				
	\$	1,265,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. M-22
Name: Anderson Blvd. (1) This project consists of the

Name: Anderson Blvd. (1) This project consists of the Limits: 1270' W of Williams Rd. to 1055' W of Williams Rd construction of a new four-lane

Impact Fee Class: M4U undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 215 Service Area(s): M

Roa	dway Construction Cost Project	ion					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation		693	су	\$	10.50	\$ 7,274
206	6" Lime Stabilization (with Lime @ 32#/sy	y)	1,362	sy	\$	3.00	\$ 4,085
306	9" Concrete Pavement		1,314	sy	\$	36.00	\$ 47,300
406	6" Curb & Gutter		430	lf	\$	6.50	\$ 2,795
506	4" Topsoil		358	sy	\$	5.00	\$ 1,792
606	4' Concrete Sidewalk		1,720	sf	\$	5.00	\$ 8,600
701	Turn Lanes and Median Openings		0				
		Pa	ving Consti	ruction (	Cost	Subtotal:	\$ 71,846
Majo	or Construction Component Allowances	s:					
	Item Description No	tes			All	owance	Item Cost
V	Prep ROW					3%	\$ 2,155

	Item Description	Notes	Allowance		Item Cost	
V	Prep ROW		3%	\$	2,155	
	Traffic Control	None Anticipated	0%	\$	-	
	Pavement Markings/Markers		2%	\$	1,542	
	Roadway Drainage	Standard Internal System	30%	\$	21,554	
	Illumination		11%	\$	8,090	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	4,311	
	Sewer	Minor Adjustments	4%	\$	2,874	
	Establish Turf / Erosion Control		3%	\$	2,155	
	Basic Landscaping		3%	\$	2,155	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:		\$0	\$	-	
		Allowa	nce Subtotal:	\$	44,837	
		Paving and Allowa	nce Subtotal:	\$	116,683	
	Construction Contingency: 15%					
		Construction C	ost TOTAL:	<b>\$</b>	135,000	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	135,000				
Engineering/Survey/Testing:		20%	\$	27,000				
Mobilization		5%	\$	6,750				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	27,000				
	\$	196,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Anderson Blvd. (2)

Limits:

Impact Fee Class:

M4U

Description:

Project No.

M-23

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 2,535 Service Area(s): M

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	nit Price	Item Cost
106	Unclassified Street Excavation	8,168	су	\$	10.50	\$ 85,768
206	6" Lime Stabilization (with Lime @ 32#/sy)	16,055	sy	\$	3.00	\$ 48,165
306	9" Concrete Pavement	15,492	sy	\$	36.00	\$ 557,700
406	6" Curb & Gutter	5,070	lf	\$	6.50	\$ 32,955
506	4" Topsoil	4,225	sy	\$	5.00	\$ 21,125
606	4' Concrete Sidewalk	20,280	sf	\$	5.00	\$ 101,400
701	Turn Lanes and Median Openings	0				
	Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 847,113

Major Construction Component Allow		LAUlaulanaa	Ham Cast
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 25,413
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 25,413
√ Pavement Markings/Markers		2%	\$ 18,185
√ Roadway Drainage	Standard Internal System	30%	\$ 254,134
√ Illumination		11%	\$ 95,391
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 50,827
√ Sewer	Minor Adjustments	4%	\$ 33,885
√ Establish Turf / Erosion Control		3%	\$ 25,413
√ Basic Landscaping		3%	\$ 25,413
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allo	wance Subtotal:	\$ 554,074
	Paving and Allo	wance Subtotal:	\$ 1,401,187
	\$ 210,178		
	Construction	<b>Cost TOTAL:</b>	\$ 1,612,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,612,000				
Engineering/Survey/Testing:		20%	\$	322,400				
Mobilization		5%	\$	80,600				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	161,200				
	\$	2,176,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
House Anderson Rd. (4)
Limits:

Description:
Project No.

M-24

This project consists of the construction of a new four-lane undivided minor arterial.

Impact Fee Class: M4U Minor Arterial Length (If): 3,670 M

dway Construction Cost Projection						
Item Description	Quantity	Unit	Un	it Price		Item Cost
Unclassified Street Excavation	11,826	су	\$	10.50	\$	124,168
6" Lime Stabilization (with Lime @ 32#/sy)	23,243	sy	\$	3.00	\$	69,730
9" Concrete Pavement	22,428	sy	\$	36.00	\$	807,400
6" Curb & Gutter	7,340	lf	\$	6.50	\$	47,710
4" Topsoil	6,117	sy	\$	5.00	\$	30,583
4' Concrete Sidewalk	29,360	sf	\$	5.00	\$	146,800
Turn Lanes and Median Openings	0					
	Item Description Unclassified Street Excavation 6" Lime Stabilization (with Lime @ 32#/sy) 9" Concrete Pavement 6" Curb & Gutter 4" Topsoil 4' Concrete Sidewalk Turn Lanes and Median Openings	Item DescriptionQuantityUnclassified Street Excavation11,8266" Lime Stabilization (with Lime @ 32#/sy)23,2439" Concrete Pavement22,4286" Curb & Gutter7,3404" Topsoil6,1174' Concrete Sidewalk29,360Turn Lanes and Median Openings0	Item Description         Quantity         Unit           Unclassified Street Excavation         11,826         cy           6" Lime Stabilization (with Lime @ 32#/sy)         23,243         sy           9" Concrete Pavement         22,428         sy           6" Curb & Gutter         7,340         If           4" Topsoil         6,117         sy           4' Concrete Sidewalk         29,360         sf           Turn Lanes and Median Openings         0	Item Description         Quantity         Unit         Un           Unclassified Street Excavation         11,826         cy         \$           6" Lime Stabilization (with Lime @ 32#/sy)         23,243         sy         \$           9" Concrete Pavement         22,428         sy         \$           6" Curb & Gutter         7,340         If         \$           4" Topsoil         6,117         sy         \$           4' Concrete Sidewalk         29,360         sf         \$           Turn Lanes and Median Openings         0         *	Item Description         Quantity         Unit         Unit Price           Unclassified Street Excavation         11,826         cy         \$ 10.50           6" Lime Stabilization (with Lime @ 32#/sy)         23,243         sy         \$ 3.00           9" Concrete Pavement         22,428         sy         \$ 36.00           6" Curb & Gutter         7,340         If         \$ 6.50           4" Topsoil         6,117         sy         \$ 5.00           4' Concrete Sidewalk         29,360         sf         \$ 5.00           Turn Lanes and Median Openings         0         5.00	Item Description         Quantity         Unit         Unit Price           Unclassified Street Excavation         11,826         cy         \$ 10.50         \$           6" Lime Stabilization (with Lime @ 32#/sy)         23,243         sy         \$ 3.00         \$           9" Concrete Pavement         22,428         sy         \$ 36.00         \$           6" Curb & Gutter         7,340         If         \$ 6.50         \$           4" Topsoil         6,117         sy         \$ 5.00         \$           4' Concrete Sidewalk         29,360         sf         \$ 5.00         \$

Paving Construction Cost Subtotal: \$ 1,226,392

Major Construction Component Allow	vances:					
Item Description	Notes	Allowance		Item Cost		
√ Prep ROW		3%	\$	36,792		
Traffic Control	None Anticipated	0%	\$	-		
√ Pavement Markings/Markers		2%	\$	26,327		
√ Roadway Drainage	Standard Internal System	30%	\$	367,918		
√ Illumination		11%	\$	138,101		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
√ Water	Minor Adjustments	6%	\$	73,584		
√ Sewer	Minor Adjustments	4%	\$	49,056		
√ Establish Turf / Erosion Control		3%	\$	36,792		
√ Basic Landscaping		3%	\$	36,792		
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
Other:		\$0	-	-		
	Allow	ance Subtotal:	\$	915,359		
	Design and Alless	Ob.(-(-)	_	0.444.754		
	Paving and Allow			<b>2,141,751</b> 321,263		
	Construction Contingency: 15%					
	Construction (	Cost TOTAL:	\$	2,464,000		

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	2,464,000				
Engineering/Survey/Testing:		20%	\$	492,800				
Mobilization		5%	\$	123,200				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	492,800				
	\$	3,573,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Description:
Project No.

M-25

This project consists of the reconstruction of an existing four-lane undivided asphalt facility into a four-lane divided major arterial.

Quantity Unit Unit Price

Length (If): 8,805 Service Area(s): M

No. Item Description

	item Beschiption		quantity	5	;			itom oost
109	Unclassified Street Excavation		40,112	су	\$	10.50	\$	421,173
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	60,657	sy	\$	3.00	\$	181,970
309	11" Concrete Pavement		56,743	sy	\$	44.00	\$	2,496,707
409	6" Curb & Gutter		35,220	lf	\$	6.50	\$	228,930
509	4" Topsoil		42,068	sy	\$	5.00	\$	210,342
609	4' Concrete Sidewalk		70,440	sf	\$	5.00	\$	352,200
701	Turn Lanes and Median Openings		6,365	sy	\$	44.00	\$	280,072
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$	4,171,393
Maj	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
V	Prep ROW				•	3%		125,142
	Traffic Control	Construction Phase	Traffic Control			3%		125,142
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		166,856
	Roadway Drainage	Standard Internal Sy	stem			30%		1,251,418
	Illumination					11%	\$	469,729
l .	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		250,284
	Sewer	Minor Adjustments				4%		166,856
	Establish Turf / Erosion Control					3%		125,142
	Basic Landscaping					3%		125,142
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000 \$0	\$	450,000
	Other:						\$ <b>\$</b>	-
Allowance Subtotal:								3,255,710
Paving and Allowance Subtotal:								7,427,103
Construction Contingency: 15%								1,114,065
			Construc	ction C	ost 1	ΓΟΤAL:	\$	8,542,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	8,542,000				
Engineering/Survey/Testing:		20%	\$	1,708,400				
Mobilization		5%	\$	427,100				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	854,200				
	\$	11,532,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Project Information:

Description:
Project No.

M-26

This project consists of the reconstruction of an existing four-lane undivided asphalt facility into a four-lane divided major arterial.

Quantity

Unit

Length (If): 4,520 Service Area(s): M

No. Item Description

109	Unclassified Street Excavation		20,591	СУ	\$	10.50	\$	216,207	
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	31,138	sy	\$	3.00	\$	93,413	
309	11" Concrete Pavement	29,129	sy	\$	44.00	\$	1,281,671		
409	6" Curb & Gutter		18,080	lf	\$	6.50	\$	117,520	
509	4" Topsoil		21,596	sy	\$	5.00	\$	107,978	
609	4' Concrete Sidewalk		36,160	sf	\$	5.00	\$	180,800	
701	Turn Lanes and Median Openings		3,268	sy	\$	44.00	\$	143,774	
		Pa	ving Const	ruction (	Cost	Subtotal:	\$	2,141,363	
Majo	or Construction Component Allow								
	Item Description	Notes			All	owance		Item Cost	
√.	Prep ROW					3%		64,241	
√.	Traffic Control	Construction Phase	Traffic Control			3%		64,241	
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%		85,655	
√.	Roadway Drainage	Standard Internal Sys	stem			30%	\$	642,409	
1	Illumination					11%	\$	241,133	
	Special Drainage Structures	Two Minor Stream C	rossings		\$	500,000	\$	500,000	
	Water	Minor Adjustments				6%	\$	128,482	
	Sewer	Minor Adjustments				4%		85,655	
√.	Establish Turf / Erosion Control					3%		64,241	
√.	Basic Landscaping					3%		64,241	
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000	
	Other:					\$0 Subtotal:	\$	-	
	\$	2,090,296							
Paving and Allowance Subtotal:								4,231,659	
		Constru	action Conti	-		15%	-	634,749	
			Construc	ction C	ost	TOTAL:	\$	4,867,000	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	4,867,000				
Engineering/Survey/Testing:		20%	\$	973,400				
Mobilization		5%	\$	243,350				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	486,700				
	\$	6,570,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information	tion:	Description:	Project No.	M-27					
Name:	Trinity Blvd. (3)	This project consists of the reconstruction of an							
Limits: Norwood Dr. to Bell Spur existing four-lane undivided asphalt facility									
Impact Fee Class:	MA4D-B	four-lane divided major arterial. This excludes an 855' four-lane divided section at the Bell Helicopter entry.							
Ultimate Class:	Major Arterial								
Length (If):	3,060								
Service Area(s):	M	<b>y</b> .							

	Item Description	,	Quantity	Unit	Ur	nit Price		Item Cost
109	Unclassified Street Excavation		13,940	су	\$	10.50	\$	146,370
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	21,080	sy	\$	3.00	\$	63,240
309	9 11" Concrete Pavement 19,720 sy			sy	\$	44.00	\$	867,680
409	6" Curb & Gutter		12,240	lf	\$	6.50	\$	79,560
509	4" Topsoil		14,620	sy	\$	5.00	\$	73,100
609	4' Concrete Sidewalk		24,480	sf	\$	5.00	\$	122,400
701	Turn Lanes and Median Openings		2,212	sy	\$	44.00	\$	97,334
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	1,449,684
Maio	or Construction Component Allow	ances:						
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	43,491
	Traffic Control	Construction Phase	Traffic Control			3%	\$	43,491
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	57,987
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	434,905
	Illumination					11%	\$	163,245
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	86,981
	Sewer	Minor Adjustments				4%	\$	57,987
	Establish Turf / Erosion Control					3%	\$	43,491
	Basic Landscaping					3%		43,491
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:	\$0					\$	-
Allowance Subtotal:								1,375,068
							_	
		_	Paving an					2,824,751
		Constru	uction Conti	-		15%		423,713
			Construc	ction C	ost	TOTAL:	\$	3,249,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	3,249,000				
Engineering/Survey/Testing:		20%	\$	649,800				
Mobilization		5%	\$	162,450				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	324,900				
	\$	4,386,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50 | \$

updated: 10/2/2012

**Item Cost** 

189,292

Project Information:

Name:

Limits:

Impact Fee Class:

Description:

Project No.

M-28

This project consists of the reconstruction of an existing four-lane undivided asphalt facility into a six-lane divided principal arterial.

Quantity

18,028

Unit

Ultimate Class: Principal Arterial

113 Unclassified Street Excavation

Length (If): 2,950 Service Area(s): M

No. Item Description

213	6" Lime Stabilization (with Lime @ 3	2#/sy)	27,533	sy	\$	3.00	\$	82,600
313	11" Concrete Pavement		26,222	sy	\$	44.00	\$	1,153,778
413	6" Curb & Gutter		11,800	lf	\$	6.50	\$	76,700
513	4" Topsoil		13,439	sy	\$	5.00	\$	67,194
613	4' Concrete Sidewalk		23,600	sf	\$	5.00	\$	118,000
701	Turn Lanes and Median Openings		2,133	sy	\$	44.00	\$	93,835
	Paving Construction Cost Subtotal:					\$	1,781,398	
Majo	or Construction Component Allowa	inces:						
	Item Description	Notes			Al	lowance		Item Cost
	Prep ROW					3%	\$	53,442
	Traffic Control	Construction Phase	Traffic Control			3%	\$	53,442
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$	71,256
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	534,420
	Illumination					11%	\$	200,598
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	106,884
	Sewer	Minor Adjustments				4%	\$	71,256
	Establish Turf / Erosion Control					3%	\$	53,442
$\sqrt{}$	Basic Landscaping					3%	\$	53,442
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					\$0 Subtotal:	\$	-
	\$	1,598,182						
Paving and Allowance Subtotal:								3,379,580
		Constru	ıction Conti			15%		506,937
			Constru	ction C	ost	TOTAL:	\$	3,887,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	3,887,000				
Engineering/Survey/Testing:		20%	\$	777,400				
Mobilization		5%	\$	194,350				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	388,700				
	\$	5,247,000						

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area N

<u>#</u>	Class	Project	<u>Limits</u>	Cost
N-1	M4U-B	S. Pipeline Rd. (1)	Raider Dr. to House Anderson Rd	\$ 3,465,000
N-2	M4U-B	S. Pipeline Rd. (2)	House Anderson Rd. to E. City Limits	\$ 1,546,000
N-3	M4U-B	S. Pipeline Rd. (3)	W. City Limits to FM 157	\$ 1,449,000
N-4	M4U-B	S. Pipeline Rd. (4)	FM 157 to Euless South Main St.	\$ 5,609,000
N-5	M4U-B	S. Pipeline Rd. (5)	Euless South Main St. to Summerbrook Dr.	\$ 2,142,000
N-6	M4U-B (1/2)	S. Pipeline Rd. (6)	Summerbrook Dr. to Boulder Park Dr.	\$ 728,000
N-7	M4U-B	S. Pipeline Rd. (7)	Boulder Park Dr. to American Blvd.	\$ 370,000
N-8	M4U (1/2)	House Anderson Rd. (1)	S. Pipeline to Trinity Blvd.	\$ 618,000
N-9	M4U	House Anderson Rd. (2)	Trinity Blvd. to 420' N of Trinity Railway Express	\$ 1,953,000
N-10	M4U	House Anderson Rd. (3)	420' N of Trinity Railway Express to 100' S of TRE	\$ 838,000
N-11	M4U-B	Euless South Main St	S. Pipeline Rd. to Trinity Blvd.	\$ 891,000
N-12	MA4D-B	FAA Blvd. (1)	SH 360 NBFR to Existing FAA Blvd. Dead End	\$ 2,291,000
N-13	MA4D-B (1/2)	FAA Blvd. (2)	Existing FAA Blvd. Dead End to 620' W of Amon Carter Blvd.	\$ 788,000
N-14	MA4D-B	Centreport Dr.	FAA Blvd. to Sovereign Rd.	\$ 2,155,000
N-15	P6D (1/3)	Trinity Blvd. (5)	595' N of Trinity Railway Express to E. City Limits	\$ 1,895,000

TOTAL \$ 26,738,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:
S. Pipeline Rd. (1)
Climits:
Raider Dr. to House Anderson Rd
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Description:
Project No.
N-1
This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Quantity

Unit

**Unit Price** 

Length (If): 3,630 Service Area(s): N

No. Item Description

107	Unclassified Street Excavation		12,100	су	\$	10.50	\$	127,050
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	23,797	sy	\$	3.00	\$	71,390
307	9" Concrete Pavement 22,990			sy	\$	36.00	\$	827,640
407	6" Curb & Gutter		7,260	lf	\$	6.50	\$	47,190
507	4" Topsoil		5,243	sy	\$	5.00	\$	26,217
607	4' Concrete Sidewalk		29,040	sf	\$	5.00	\$	145,200
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	1,244,687
Majo	or Construction Component Allows				_			
	Item Description	Notes			All	owance		Item Cost
<b>V</b>	Prep ROW					3%		37,341
	Traffic Control	Construction Phase	Traffic Control			3%	\$	37,341
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		49,787
	Roadway Drainage	Standard Internal Sy	stem			30%		373,406
	Illumination					11%	\$	140,161
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		74,681
	Sewer	Minor Adjustments				4%		49,787
	Establish Turf / Erosion Control					3%		37,341
	Basic Landscaping					3%		37,341
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					Subtotal:		
	\$	987,185						
Paving and Allowance Subtotal:								2,231,872
		Constru	uction Conti			15%	-	334,781
			Construc	ction C	ost <sup>-</sup>	TOTAL:	\$	2,567,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	2,567,000				
Engineering/Survey/Testing:		20%	\$	513,400				
Mobilization		5%	\$	128,350				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	256,700				
	<b>\$</b>	3,465,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

1,145,000

Project Information:

Name:

S. Pipeline Rd. (2)

House Anderson Rd. to E. City Limits

Impact Fee Class:

M4U-B

Description:

Project No.

N-2

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Quantity

Unit

**Construction Cost TOTAL:** 

Ultimate Class: Minor Arterial

Length (If): 1,735 Service Area(s): N

No. Item Description

140.	item bescription		Qualitity		Office 1 floor			110111 0031
107	Unclassified Street Excavation		5,783	су	\$	10.50	\$	60,725
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	11,374	sy	\$	3.00	\$	34,122
307	97 9" Concrete Pavement 10			sy	\$	36.00	\$	395,580
407	6" Curb & Gutter		3,470	lf	\$	6.50	\$	22,555
507	4" Topsoil		2,506	sy	\$	5.00	\$	12,531
607	4' Concrete Sidewalk		13,880	sf	\$	5.00	\$	69,400
701	Turn Lanes and Median Openings		0					
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$	594,912
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
V	Prep ROW					3%		17,847
	Traffic Control	Construction Phase	Traffic Control			3%		17,847
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		23,796
	Roadway Drainage	Standard Internal Sy	stem			30%		178,474
	Illumination					11%	\$	66,991
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		35,695
	Sewer	Minor Adjustments				4%		23,796
	Establish Turf / Erosion Control					3%		17,847
	Basic Landscaping					3%		17,847
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
Allowance Subtotal:								400,142
		_	Paving an					995,055
		Constru	uction Conti	ngency:		15%	\$	149,258

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,145,000				
Engineering/Survey/Testing:		20%	\$	229,000				
Mobilization		5%	\$	57,250				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	114,500				
	\$	1,546,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
S. Pipeline Rd. (3)
Limits:
W. City Limits to FM 157
Impact Fee Class:
Ultimate Class:
Winor Arterial

Description:
Project No.
N-3
This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Ultimate Class: Minor Length (If): 1,665 Service Area(s): N

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	5,550	су	\$	10.50	\$ 58,275
207	6" Lime Stabilization (with Lime @ 32#/sy)	10,915	sy	\$	3.00	\$ 32,745
307	9" Concrete Pavement	10,545	sy	\$	36.00	\$ 379,620
407	6" Curb & Gutter	3,330	lf	\$	6.50	\$ 21,645
507	4" Topsoil	2,405	sy	\$	5.00	\$ 12,025
607	4' Concrete Sidewalk	13,320	sf	\$	5.00	\$ 66,600
701	Turn Lanes and Median Openings	0				
Paving Construction Cost Subtotal: \$					\$ 570,910	

Major Construction Component Allow	Jances:		
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 17,127
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 17,127
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 22,836
√ Roadway Drainage	Standard Internal System	30%	\$ 171,273
$\sqrt{}$ Illumination		11%	\$ 64,289
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 34,255
√ Sewer	Minor Adjustments	4%	\$ 22,836
√ Establish Turf / Erosion Control		3%	\$ 17,127
√ Basic Landscaping		3%	\$ 17,127
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	nce Subtotal:	\$ 383,998
	\$ 954,908		
	\$ 143,236		
	Construction C	ost TOTAL:	\$ 1,099,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,099,000			
Engineering/Survey/Testing:		20%	\$	219,800			
Mobilization		5%	\$	54,950			
Previous City contribution			\$	-			
Other	CFA# 2007118		\$	(34,940)			
ROW/Easement Acquisition:	Existing Alignment	10%	\$	109,900			
	\$	1,449,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:

S. Pipeline Rd. (4)

Limits:

Impact Fee Class:

Ultimate Class:

Winor Arterial

Description:

Project No.

N-4

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Quantity

Unit

Length (If): 5,340 Service Area(s): N

No. Item Description

307   9" Concrete Pavement   33,820   sy   \$ 36.00   \$ 1,217,	107	Unclassified Street Excavation		17,800	cy	\$	10.50	\$ 186,900
407   6" Curb & Gutter   10,680   If   \$ 6.50   \$ 69,	207	7 6" Lime Stabilization (with Lime @ 32#/sy) 35,007 sy			\$	3.00	\$ 105,020	
4" Topsoil	307	9" Concrete Pavement	9" Concrete Pavement 33,820 sy			\$	36.00	\$ 1,217,520
4' Concrete Sidewalk   42,720   sf   \$ 5.00   \$ 213,     Turn Lanes and Median Openings   Paving Construction Cost Subtotal: \$ 1,831,     Major Construction Component Allowances:   Item Description   Notes   Allowance   Item Cost	407	6" Curb & Gutter		10,680	lf	\$	6.50	\$ 69,420
4' Concrete Sidewalk   42,720   sf   \$ 5.00   \$ 213,     Turn Lanes and Median Openings   Paving Construction Cost Subtotal: \$ 1,831,     Major Construction Component Allowances:   Item Description   Notes   Allowance   Item Cost	507	4" Topsoil		7,713	sy	\$	5.00	\$ 38,567
Paving Construction Cost Subtotal: \$ 1,831,         Major Construction Component Allowances:         Item Description       Notes       Allowance       Item Cost         √ Prep ROW       3%       \$ 54,         √ Traffic Control       3%       \$ 54,         √ Pavement Markings/Markers       Pavement Markings with Bike Lanes       4%       \$ 73,         √ Roadway Drainage       Standard Internal System       30%       \$ 549,         √ Illumination       11%       \$ 206,         √ Special Drainage Structures       Minor Stream Crossing       \$ 250,000       \$ 250,         √ Water       Minor Adjustments       6%       \$ 109,         √ Sewer       Minor Adjustments       4%       \$ 73,         √ Establish Turf / Erosion Control       3%       \$ 54,         √ Basic Landscaping       Assume Improvement per Half Mile       \$150,000       \$ 300,         √ Intersections (Signal, Roundabout, etc.)       Assume Improvement per Half Mile       \$ 150,000       \$ 300,         Allowance Subtotal:       \$ 1,781,	607	1 · · · · · · · · · · · · · · · · · · ·		42,720	sf	\$	5.00	\$ 213,600
Major Construction Component Allowances:         Item Description       Notes       Allowance       Item Cost         √ Prep ROW       3%       \$ 54,         √ Traffic Control       3%       \$ 54,         √ Pavement Markings/Markers       Pavement Markings with Bike Lanes       4%       \$ 73,         √ Roadway Drainage       Standard Internal System       30%       \$ 549,         √ Illumination       11%       \$ 206,         √ Special Drainage Structures       Minor Stream Crossing       \$ 250,000       \$ 250,         √ Water       Minor Adjustments       6%       \$ 109,         √ Sewer       Minor Adjustments       4%       \$ 73,         √ Establish Turf / Erosion Control       3%       \$ 54,         √ Basic Landscaping       3%       \$ 54,         √ Intersections (Signal, Roundabout, etc.)       Assume Improvement per Half Mile       \$150,000       \$ 300,         Other:       Allowance Subtotal:       \$ 1,781,	701	Turn Lanes and Median Openings		0				
Item DescriptionNotesAllowanceItem Cost√ Prep ROW √ Traffic Control √ Pavement Markings/MarkersConstruction Phase Traffic Control Pavement Markings with Bike Lanes3% 4% 54, 54, 73, 80 Adway Drainage ✓ Illumination ✓ Special Drainage Structures ✓ Water ✓ Sewer ✓ Establish Turf / Erosion Control ✓ Basic Landscaping ✓ Intersections (Signal, Roundabout, etc.) Other:Minor Stream Crossing Minor Adjustments\$ 250,000 8 250,000 			Pa	aving Const	ruction (	Cost	Subtotal:	\$ 1,831,027
Item DescriptionNotesAllowanceItem Cost√ Prep ROW √ Traffic Control √ Pavement Markings/MarkersConstruction Phase Traffic Control Pavement Markings with Bike Lanes3% 								
√ Prep ROW       3%       \$ 54,         √ Traffic Control       20%       \$ 54,         √ Pavement Markings/Markers       Pavement Markings with Bike Lanes       4%       \$ 73,         √ Roadway Drainage       Standard Internal System       30%       \$ 549,         √ Illumination       11%       \$ 206,         √ Special Drainage Structures       Minor Stream Crossing       \$ 250,000       \$ 250,         √ Water       Minor Adjustments       6%       \$ 109,         √ Sewer       Minor Adjustments       4%       \$ 73,         √ Establish Turf / Erosion Control       Minor Adjustments       4%       \$ 73,         √ Intersections (Signal, Roundabout, etc.)       Assume Improvement per Half Mile       \$ 150,000       \$ 300,         Other:       Allowance Subtotal:       \$ 1,781,	Maj	or Construction Component Allow	ances:					
√ Traffic Control       Construction Phase Traffic Control       3%       \$ 54,         √ Pavement Markings/Markers       Pavement Markings with Bike Lanes       4%       \$ 73,         √ Roadway Drainage       Standard Internal System       30%       \$ 549,         √ Illumination       11%       \$ 206,         √ Special Drainage Structures       Minor Stream Crossing       \$ 250,000       \$ 250,         √ Water       Minor Adjustments       6%       \$ 109,         √ Establish Turf / Erosion Control       Minor Adjustments       4%       \$ 73,         √ Basic Landscaping       Assume Improvement per Half Mile       \$ 150,000       \$ 300,         √ Intersections (Signal, Roundabout, etc.)       Assume Improvement per Half Mile       \$ 1,781,		Item Description	Notes			Al	lowance	Item Cost
√ Pavement Markings/Markers       Pavement Markings with Bike Lanes       4%       \$ 73,         √ Roadway Drainage       Standard Internal System       30%       \$ 549,         √ Illumination       11%       \$ 206,         √ Special Drainage Structures       Minor Stream Crossing       \$ 250,000       \$ 250,         √ Water       Minor Adjustments       6%       \$ 109,         √ Sewer       Minor Adjustments       4%       \$ 73,         √ Establish Turf / Erosion Control       Minor Adjustments       3%       \$ 54,         √ Intersections (Signal, Roundabout, etc.)       Assume Improvement per Half Mile       \$150,000       \$ 300,         Other:       Allowance Subtotal:       \$ 1,781,							3%	\$ 54,931
√ Roadway Drainage √ Illumination √ Special Drainage Structures √ Water 		Traffic Control	Construction Phase	Traffic Control			3%	\$ 54,931
√ Illumination       11%       \$ 206,         √ Special Drainage Structures       Minor Stream Crossing       \$ 250,000       \$ 250,000         √ Water       Minor Adjustments       6%       \$ 109,         √ Sewer       Minor Adjustments       4%       \$ 73,         √ Establish Turf / Erosion Control       3%       \$ 54,         √ Basic Landscaping       Assume Improvement per Half Mile       \$150,000       \$ 300,         Other:       Allowance Subtotal:       \$ 1,781,		Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 73,241
√ Special Drainage Structures       Minor Stream Crossing       \$ 250,000       \$ 250,         √ Water       Minor Adjustments       6%       \$ 109,         √ Sewer       Minor Adjustments       4%       \$ 73,         √ Establish Turf / Erosion Control       3%       \$ 54,         √ Basic Landscaping       Assume Improvement per Half Mile       \$ 150,000       \$ 300,         Other:       Allowance Subtotal:       \$ 1,781,		Roadway Drainage	Standard Internal Sy	stem			30%	\$ 549,308
√ Water       Minor Adjustments       6%       \$ 109,         √ Sewer       Minor Adjustments       4%       \$ 73,         √ Establish Turf / Erosion Control       3%       \$ 54,         √ Basic Landscaping       Assume Improvement per Half Mile       \$150,000       \$ 300,         Other:       Allowance Subtotal:       \$ 1,781,	$\checkmark$	Illumination					11%	\$ 206,187
<ul> <li>√ Sewer</li> <li>√ Establish Turf / Erosion Control</li> <li>√ Basic Landscaping</li> <li>√ Intersections (Signal, Roundabout, etc.)</li> <li>Other:</li> <li>Minor Adjustments</li> <li>4%</li> <li>3%</li> <li>54,</li> <li>3%</li> <li>54,</li> <li>\$150,000</li> <li>\$150,000</li> <li>\$100,000</li> <li>\$10</li></ul>		Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$ 250,000
<ul> <li>✓ Establish Turf / Erosion Control</li> <li>✓ Basic Landscaping</li> <li>✓ Intersections (Signal, Roundabout, etc.)</li> <li>Other:</li> <li>Assume Improvement per Half Mile</li> <li>Assume Improvement per Half Mile</li> <li>Allowance Subtotal:</li> <li>\$ 1,781,</li> </ul>		Water	Minor Adjustments				6%	\$ 109,862
<ul> <li>√ Basic Landscaping</li> <li>√ Intersections (Signal, Roundabout, etc.)</li> <li>Other:</li> <li>Assume Improvement per Half Mile</li> <li>Assume Improvement per Half Mile</li> <li>Allowance Subtotal:</li> <li>\$ 1,781,</li> </ul>		Sewer	Minor Adjustments				4%	\$ 73,241
✓ Intersections (Signal, Roundabout, etc.) Other: Assume Improvement per Half Mile \$150,000 \$ 300, Allowance Subtotal: \$1,781,		Establish Turf / Erosion Control					3%	\$ 54,931
Other: Allowance Subtotal: \$ 1,781,		Basic Landscaping					3%	\$ 54,931
Allowance Subtotal: \$ 1,781,		Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile				\$150,000	\$ 300,000
		Other:						
Paving and Allowance Subtotal: \$ 3,612,		Allowance Subtotal:					\$ 1,781,562	
Paving and Allowance Subtotal: \$ 3,612,								
	Paving and Allowance Subtotal:						\$ 3,612,589	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	4,155,000			
Engineering/Survey/Testing:		20%	\$	831,000			
Mobilization		5%	\$	207,750			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	415,500			
	\$	5,609,000					

Construction Contingency:

**Construction Cost TOTAL:** 

**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.

\$

15%

541,888

4,155,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	N-5				
Name:	S. Pipeline Rd. (5)		This project consists of the					
Limits:	Euless South Main St. to Summerbrook	k Dr.	reconstruction of an exis	sting two-lane				
Impact Fee Class: M4U-B			undivided asphalt facility into a four-					
Ultimate Class:	Minor Arterial		lane undivided minor art	erial.				
Length (If):								
Service Area(s):	N							

No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation		8,017	су	\$	10.50	\$	84,175
207	6" Lime Stabilization (with Lime @ 32	2#/sy) 15,766 sy			\$	3.00	\$	47,298
307	9" Concrete Pavement	15,232 sy			\$	36.00	\$	548,340
407	6" Curb & Gutter		4,810	lf	\$	6.50	\$	31,265
507	4" Topsoil		3,474	sy	\$	5.00	\$	17,369
607	4' Concrete Sidewalk		19,240	sf	\$	5.00	\$	96,200
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	824,648
Maio	or Construction Component Allowa	nces:	_	_		_		
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	24,739
	Traffic Control	Construction Phase	Traffic Control			3%	\$	24,739
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	32,986
$\checkmark$	Roadway Drainage	Standard Internal Sys	stem			30%	\$	247,394
	Illumination					11%	\$	92,861
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\checkmark$	Water	Minor Adjustments				6%	\$	49,479
	Sewer	Minor Adjustments				4%	\$	32,986
	Establish Turf / Erosion Control					3%	\$	24,739
	Basic Landscaping					3%	\$	24,739
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other: \$0				-			
Allowance Subtotal:							\$	554,664
						_	4 070 010	
Paving and Allowance Subtotal:							1,379,312	
		Constru	ection Conti	-		15%	\$	206,897
Construction Cost TOTAL:						\$	1,587,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,587,000			
Engineering/Survey/Testing:		20%	\$	317,400			
Mobilization		5%	\$	79,350			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	158,700			
	\$	2,142,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

205 6" Lime Stabilization (with Lime @ 32#/sy)

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

13,300

7,473

539,000

Project Information:Description:Project No.N-6Name:S. Pipeline Rd. (6)This project consists of the reconstruction of the

Quantity

1,267

2,491

Unit

су

sy

**Unit Price** 

10.50

3.00 \$

\$

\$

Construction Cost TOTAL: \$

Limits: Summerbrook Dr. to Boulder Park Dr. bridge at Post Oak Creek.

Impact Fee Class: M4U-B (1/2)
Ultimate Class: Minor Arterial

105 Unclassified Street Excavation

Length (If): 760 Service Area(s): N

No. Item Description

200	o Lime Stabilization (with Lime &	<u>32π/3</u> y)	۷,۳۵۱	- Sy	Ψ	5.00	Ψ	1,713
305	9" Concrete Pavement		2,407	sy	\$	36.00	\$	86,640
405	6" Curb & Gutter		760	lf	\$	6.50	\$	4,940
505	5 4" Topsoil 549 sy			\$	5.00	\$	2,744	
605	05 4' Concrete Sidewalk 3,040 sf			\$	5.00	\$	15,200	
701	Turn Lanes and Median Openings		0					
		Pa	ving Const	ruction (	Cost	Subtotal:	\$	130,298
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Al	lowance		Item Cost
V	Prep ROW					3%	\$	3,909
	Traffic Control	Construction Phase	Traffic Control			3%	\$	3,909
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$	5,212
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	39,089
	Illumination					11%	\$	14,672
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	7,818
	Sewer	Minor Adjustments				4%	\$	5,212
	Establish Turf / Erosion Control					3%	\$	3,909
	Basic Landscaping					3%	\$	3,909
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
Allowance Subtotal:						\$	337,639	
			Paving an					467,937
		Constru	uction Conti	ngency:		15%	\$	70,191

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	539,000			
Engineering/Survey/Testing:		20%	\$	107,800			
Mobilization		5%	\$	26,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	53,900			
	\$	728,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Minor Arterial

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **N-7** Name: S. Pipeline Rd. (7) This project consists of the reconstruction of an Limits: Boulder Park Dr. to American Blvd. existing two-lane undivided asphalt facility into a Impact Fee Class: M4U-B four-lane undivided minor arterial. Ultimate Class:

Length (If): 415 Service Area(s): Ν

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	1,383	су	\$	10.50	\$ 14,525
207	6" Lime Stabilization (with Lime @ 32#/sy)	2,721	sy	\$	3.00	\$ 8,162
307	9" Concrete Pavement	2,628	sy	\$	36.00	\$ 94,620
407	6" Curb & Gutter	830	lf	\$	6.50	\$ 5,395
507	4" Topsoil	599	sy	\$	5.00	\$ 2,997
607	4' Concrete Sidewalk	3,320	sf	\$	5.00	\$ 16,600
701	Turn Lanes and Median Openings	0				
	F	Paving Consti	ruction (	Cost	Subtotal:	\$ 142,299

		Paving Construction (	Jost Subtotal:	\$	142,299		
Maj	or Construction Component Allow Item Description	vances: Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	4,269		
	Traffic Control	Construction Phase Traffic Control	3%	\$	4,269		
$\checkmark$	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	5,692		
	Roadway Drainage	Standard Internal System	30%	\$	42,690		
	Illumination		11%	\$	16,024		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	8,538		
	Sewer	Minor Adjustments	4%	\$	5,692		
	Establish Turf / Erosion Control		3%	\$	4,269		
$\checkmark$	Basic Landscaping		3%	\$	4,269		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
	Other:		\$0	,	-		
	\$	95,711					
	\$	238,010					
	\$	35,702					
	Construction Contingency: 15% Construction Cost TOTAL:						

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	274,000			
Engineering/Survey/Testing:		20%	\$	54,800			
Mobilization		5%	\$	13,700			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	27,400			
	\$	370,000					

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
House Anderson Rd. (1)
Limits:
Description:
Project No.
N-8

This project consists of the widening of a two-lane undivided concrete facility into a four-lane

Impact Fee Class: M4U (1/2)
Ultimate Class: Minor Arterial

Length (If): 1,440
Service Area(s): N

undivided concrete facility into a fourundivided minor arterial.

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	nit Price	Item Cost
104	Unclassified Street Excavation	2,320	су	\$	10.50	\$ 24,360
204	6" Lime Stabilization (with Lime @ 32#/sy)	4,560	sy	\$	3.00	\$ 13,680
304	9" Concrete Pavement	4,400	sy	\$	36.00	\$ 158,400
404	6" Curb & Gutter	1,440	lf	\$	6.50	\$ 9,360
504	4" Topsoil	1,200	sy	\$	5.00	\$ 6,000
604	4' Concrete Sidewalk	5,760	sf	\$	5.00	\$ 28,800
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 240,600

Majo	Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost			
	Prep ROW		3%	\$	7,218			
	Traffic Control	Construction Phase Traffic Control	3%	\$	7,218			
	Pavement Markings/Markers		2%	\$	5,165			
	Roadway Drainage	Standard Internal System	30%	\$	72,180			
	Illumination		11%	\$	27,093			
	Special Drainage Structures	None Anticipated	\$ -	\$	-			
	Water	Minor Adjustments	6%	\$	14,436			
	Sewer	Minor Adjustments	4%	\$	9,624			
	Establish Turf / Erosion Control		3%	\$	7,218			
	Basic Landscaping		3%	\$	7,218			
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-			
	Other:							
		Allowa	ınce Subtotal:	\$	157,370			
	Paving and Allowance Subtotal:							
	Construction Contingency: 15%							
		Construction C	ost TOTAL:	\$	458,000			

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	458,000			
Engineering/Survey/Testing:		20%	\$	91,600			
Mobilization		5%	\$	22,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	45,800			
	\$	618,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

House Anderson Rd. (2)

Limits:

Trinity Blvd. to 420' N of Trinity Railway Express
Impact Fee Class:

Ultimate Class:

M4U

Minor Arterial

Length (If):

2 275

Description:

Project No.

N-9

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Length (If): 2,275 Service Area(s): N

No.	No.   Item Description   Quantity   Unit			Un	it Price		Item Cost	
106	Unclassified Street Excavation		7,331	су	\$	10.50	\$	76,971
206	6 6" Lime Stabilization (with Lime @ 32#/sy) 14,408 sy			\$	3.00	\$	43,225	
306	9" Concrete Pavement		13,903	sy	\$	36.00	\$	500,500
406	6" Curb & Gutter		4,550	lf	\$	6.50	\$	29,575
506	4" Topsoil		3,792	sy	\$	5.00	\$	18,958
606	4' Concrete Sidewalk		18,200	sf	\$	5.00	\$	91,000
701	Turn Lanes and Median Openings		0					
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	760,229
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		22,807
	Traffic Control	Construction Phase	Traffic Control			3%		22,807
	Pavement Markings/Markers					2%		16,320
	Roadway Drainage	Standard Internal Sys	stem			30%		228,069
$\checkmark$	Illumination					11%	\$	85,607
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
√,	Water	Minor Adjustments				6%		45,614
√,	Sewer	Minor Adjustments				4%		30,409
√,	Establish Turf / Erosion Control					3%		22,807
V	Basic Landscaping					3%	\$	22,807
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other: \$0				_	-		
Allowance Subtotal:						\$	497,246	
							Ļ	4 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
			Paving and					1,257,475
		Constru	ection Conti			15%	\$	188,621
			Construc	ction C	ost <sup>-</sup>	TOTAL:	\$	1,447,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,447,000			
Engineering/Survey/Testing:		20%	\$	289,400			
Mobilization		5%	\$	72,350			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	144,700			
	\$	1,953,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. N-10

Name: House Anderson Rd. (3) This project consists of the

Name: House Anderson Rd. (3) This project consists of the Limits: 420' N of Trinity Railway Express to 100' S of TRE construction of a new four-lane

Impact Fee Class: M4U undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 525 Service Area(s): N

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	1,692	су	\$	10.50	\$ 17,763
206	6" Lime Stabilization (with Lime @ 32#/sy)	3,325	sy	\$	3.00	\$ 9,975
306	9" Concrete Pavement	3,208	sy	\$	36.00	\$ 115,500
406	6" Curb & Gutter	1,050	lf	\$	6.50	\$ 6,825
506	4" Topsoil	875	sy	\$	5.00	\$ 4,375
606	4' Concrete Sidewalk	4,200	sf	\$	5.00	\$ 21,000
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 175,438

Mai					
Majo	or Construction Component Allowa Item Description	Notes	Allowance		Item Cost
	Prep ROW		3%	\$	5,263
	Traffic Control	None Anticipated	0%	\$	-
	Pavement Markings/Markers		2%	\$	3,766
	Roadway Drainage	Standard Internal System	30%	\$	52,631
	Illumination		11%	\$	19,756
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	Minor Adjustments	6%	\$	10,526
	Sewer	Minor Adjustments	4%	\$	7,018
	Establish Turf / Erosion Control		3%	\$	5,263
	Basic Landscaping		3%	\$	5,263
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
	Other:	Railroad Crossing	\$250,000	\$	250,000
		Allowa	nce Subtotal:	\$	359,486
		Paving and Allowa	nce Subtotal:	\$	534,924
	Construction Contingency: 15%				
		Construction C	ost TOTAL:	\$	578,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	578,000			
Engineering/Survey/Testing:		20%	\$	115,600			
Mobilization		5%	\$	28,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	115,600			
	\$	838,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. N-11 Description: Name: Euless South Main St This project consists of the reconstruction of an Limits: S. Pipeline Rd. to Trinity Blvd. existing two-lane undivided asphalt facility into a Impact Fee Class: M4U-B four-lane undivided minor arterial. **Ultimate Class:** Minor Arterial

Length (If): 1,000 Service Area(s): Ν

	Item Description	•	Quantity	Unit	Uni	it Price		Item Cost			
107	Unclassified Street Excavation		3,333	су	\$	10.50	\$	35,000			
207	7 6" Lime Stabilization (with Lime @ 32#/sy) 6,556 sy			\$	3.00	\$	19,667				
307	9" Concrete Pavement		6,333	sy	\$	36.00	\$	228,000			
407	6" Curb & Gutter		2,000	lf	\$	6.50	\$	13,000			
507	4" Topsoil		1,444	sy	\$	5.00	\$	7,222			
607	4' Concrete Sidewalk		8,000	sf	\$	5.00	\$	40,000			
701	Turn Lanes and Median Openings		0								
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	342,889			
Majo	or Construction Component Allow	ances:	_								
	Item Description	Notes			Allo	wance		Item Cost			
	Prep ROW					3%	\$	10,287			
	Traffic Control	Construction Phase	Traffic Control			3%	\$	10,287			
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	13,716			
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	102,867			
	Illumination					11%	\$	38,612			
	Special Drainage Structures	None Anticipated			\$	-	\$	-			
	Water	Minor Adjustments				6%	\$	20,573			
	Sewer	Minor Adjustments				4%	\$	13,716			
	Establish Turf / Erosion Control					3%	\$	10,287			
	Basic Landscaping					3%	\$	10,287			
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-			
	Other:					\$0	\$	-			
	Allowance Subtotal:							230,630			
	Paving and Allowance Subtotal:						\$	573,518			
		Constru	uction Conti	ngency:		15%	\$	86,028			
			Constru	ction C	ost T	Construction Cost TOTAL:					

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	660,000			
Engineering/Survey/Testing:		20%	\$	132,000			
Mobilization		5%	\$	33,000			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	66,000			
	\$	891,000					

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. N-12
Name: FAA Blvd. (1) This project consists of the

Limits: SH 360 NBFR to Existing FAA Blvd. Dead End construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 1,765 Service Area(s): N

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	8,041	су	\$	10.50	\$ 84,426
209	6" Lime Stabilization (with Lime @ 32#/sy)	12,159	sy	\$	3.00	\$ 36,477
309	11" Concrete Pavement	11,374	sy	\$	44.00	\$ 500,476
409	6" Curb & Gutter	7,060	lf	\$	6.50	\$ 45,890
509	4" Topsoil	8,433	sy	\$	5.00	\$ 42,164
609	4' Concrete Sidewalk	14,120	sf	\$	5.00	\$ 70,600
701	Turn Lanes and Median Openings	1,276	sy	\$	44.00	\$ 56,142
	P	aving Consti	uction (	Cost S	Subtotal:	\$ 836,174
		-				

Majo	Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost			
	Prep ROW		3%	\$	25,085			
	Traffic Control	None Anticipated	0%	\$	-			
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	33,447			
	Roadway Drainage	Standard Internal System	30%	\$	250,852			
	Illumination		11%	\$	94,159			
	Special Drainage Structures	None Anticipated	\$ -	\$	-			
	Water	Minor Adjustments	6%	\$	50,170			
	Sewer	Minor Adjustments	4%	\$	33,447			
	Establish Turf / Erosion Control		3%	\$	25,085			
	Basic Landscaping		3%	\$	25,085			
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-			
	Other:		\$0	\$	-			
	\$	537,331						
	\$	1,373,505						
Construction Contingency: 15%					206,026			
	\$	1,580,000						

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,580,000			
Engineering/Survey/Testing:		20%	\$	316,000			
Mobilization		5%	\$	79,000			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	316,000			
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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: Project No. N-13

Name: FAA Blvd. (2)

Limits: Existing FAA Blvd. Dead End to 620' W of Amon Carter Blvd.

Impact Fee Class: MA4D-B (1/2)

**Ultimate Class:** Major Arterial This project consists of the widening of a two-lane Length (If): 1,140 undivided concrete facility into a four-lane divided

Service Area(s): Ν major arterial.

No.	Item Description		Quantity	Unit	Unit Price		Item Cost	
111	Unclassified Street Excavation		2,660	су	\$	10.50	\$	27,930
211	6" Lime Stabilization (with Lime @ 32#/sy)		3,927	sy	\$	3.00	\$	11,780
311	11" Concrete Pavement		3,673	sy	\$	44.00	\$	161,627
411	6" Curb & Gutter		3,420	lf	\$	6.50	\$	22,230
511	4" Topsoil		4,117	sy	\$	5.00	\$	20,583
611	4' Concrete Sidewalk		4,560	sf	\$	5.00	\$	22,800
701	Turn Lanes and Median Openings		824	sy	\$	44.00	\$	36,262
		Pa	ving Const	ruction (	Cost	Subtotal:	\$	303,212
Majo	Major Construction Component Allowances:							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		9,096
V	Traffic Control	Construction Phase Traffic Control			3%	\$	9,096	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes				4%	\$	12,128
	Roadway Drainage	Standard Internal System			30%		90,963	
	Illumination					11%	\$	34,144
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		18,193
	Sewer	Minor Adjustments				4%		12,128
√.	Establish Turf / Erosion Control					3%		9,096
	Basic Landscaping					3%	\$	9,096
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0		-
Allowance Subtotal:						\$	203,942	
Paving and Allowance Subtotal:					\$	507,154		
Construction Contingency: 15%						76,073		
Construction Cost TOTAL:						\$	584,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	584,000			
Engineering/Survey/Testing:		20%	\$	116,800			
Mobilization		5%	\$	29,200			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	58,400			
	\$	788,000					

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:Description:Project No.N-14Name:Centreport Dr.This project consists of the construction of a new

Limits: FAA Blvd. to Sovereign Rd. four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 1,660
Service Area(s): N

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation	7,562	су	\$	10.50	\$	79,403
209	6" Lime Stabilization (with Lime @ 32#/sy)	11,436	sy	\$	3.00	\$	34,307
309	11" Concrete Pavement	10,698	sy	\$	44.00	\$	470,702
409	6" Curb & Gutter	6,640	lf	\$	6.50	\$	43,160
509	4" Topsoil	7,931	sy	\$	5.00	\$	39,656
609	4' Concrete Sidewalk	13,280	sf	\$	5.00	\$	66,400
701	Turn Lanes and Median Openings	1,200	sy	\$	44.00	\$	52,802
	D.	avida ar Camatr		) 1 i	0	•	700 400

Paving Construction Cost Subtotal:	\$ 786,430	
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Majo	or Construction Component Allow	ances:		
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 23,593
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 31,457
	Roadway Drainage	Standard Internal System	30%	\$ 235,929
	Illumination		11%	\$ 88,558
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 47,186
	Sewer	Minor Adjustments	4%	\$ 31,457
	Establish Turf / Erosion Control		3%	\$ 23,593
	Basic Landscaping		3%	\$ 23,593
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:		\$0	\$ -
		Allowa	ance Subtotal:	\$ 505,365
		Paving and Allowa	ance Subtotal:	\$ 1,291,795
		Construction Contingency:	15%	\$ 193,769
		Construction C	ost TOTAL:	\$ 1,486,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,486,000
Engineering/Survey/Testing:		20%	\$ 297,200
Mobilization		5%	\$ 74,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 297,200
	Impact Fee Proj	ect Cost TOTAL:	\$ 2,155,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

Item Cost

1,516,000

**Project Information:** Description: Project No. N-15 Name: Trinity Blvd. (5) This project consists of the

Limits: 595' N of Trinity Railway Express to E. City Limits construction of two additional through

Impact Fee Class: P6D (1/3) lanes within the existing median.

Quantity Unit Unit Price

**Ultimate Class:** Principal Arterial

Length (If): 4,655 Service Area(s): Ν

No. Item Description

NO.	o. Ittelli bescription			Oill	U	III FIICE	item Cost
114	Unclassified Street Excavation		14,482	су	\$	10.50	\$ 152,063
214	6" Lime Stabilization (with Lime @ 3	32#/sy)	13,965	sy	\$	3.00	\$ 41,895
314	11" Concrete Pavement		12,931	sy	\$	44.00	\$ 568,944
414	6" Curb & Gutter		9,310	lf	\$	6.50	\$ 60,515
514	4" Topsoil		14,482	sy	\$	5.00	\$ 72,411
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$ -
701	Turn Lanes and Median Openings		3,365	sy	\$	44.00	\$ 148,068
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 1,043,897
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			All	owance	Item Cost
	Prep ROW					3%	\$ 31,317
$\checkmark$	Traffic Control	Construction Phase	Traffic Control			3%	31,317
	Pavement Markings/Markers					3%	\$ 31,317
	Roadway Drainage	None Anticipated				0%	\$ -
	Illumination					11%	\$ 117,550
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	None Anticipated				0%	\$ -
	Sewer	None Anticipated				0%	\$ -
	Establish Turf / Erosion Control					3%	\$ 31,317
	Basic Landscaping					3%	\$ 31,317
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	\$ -
				Allowa	nce :	Subtotal:	\$ 274,135
			Paving an			Subtotal:	\$ 1,318,032
							\$ 197,705

Impact Fee Project Cost Sumn	ary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,516,000
Engineering/Survey/Testing:		20%	\$ 303,200
Mobilization		5%	\$ 75,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project C	ost TOTAL:	\$ 1,895,000

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.

**Construction Cost TOTAL:** 

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area O

<u>#</u>	Class	<u>Project</u>	<u>Limits</u>	Cost
0-1	M4U-B (1/2)	Sandy Ln. (4)	IH-30 EB to Ederville Rd.	\$ 792,000
0-2	M4U-B	Randol Mill Rd. (10)	IH-30 EB to 120' NW of Mill Valley Cir.	\$ 822,000
0-3	MA4D-B	Cooks Ln. (5)	Brentwood Stair Rd. to Whitney Ln.	\$ 5,372,000
0-4	MA4D-B (1/2)	Cooks Ln. (6)	Whitney Ln. to S Maegen Cir.	\$ 855,000
O-5	MA4D-B	Cooks Ln. (7)	S Maegen Cir. To Dottie Lynn Pkwy.	\$ 1,853,000
			TOTAL	\$ 9,694,000

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

**NOTE:** 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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated:

10/2/2012

Project Information:

Name:

Limits:

Impact Fee Class:
Ultimate Class:

Nescription:

Description:

Project No.

O-1

This project consists of the widening of a two-lane undivided concrete facility into a four-lane divided major arterial. This includes widening a 80' bridge section over IH-30.

Length (If): 870 Service Area(s): O

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	nit Price	Item Cost
105	Unclassified Street Excavation	1,450	су	\$	10.50	\$ 15,225
205	6" Lime Stabilization (with Lime @ 32#/sy)	2,852	sy	\$	3.00	\$ 8,555
305	9" Concrete Pavement	2,755	sy	\$	36.00	\$ 99,180
405	6" Curb & Gutter	870	lf	\$	6.50	\$ 5,655
505	4" Topsoil	628	sy	\$	5.00	\$ 3,142
605	4' Concrete Sidewalk	3,480	sf	\$	5.00	\$ 17,400
701	Turn Lanes and Median Openings	0				
	Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 149,157

Maj	or Construction Component Allow	ances:		
	Item Description	Notes	Allowance	Item Cost
V	Prep ROW		3%	\$ 4,475
	Traffic Control	Construction Phase Traffic Control	3%	\$ 4,475
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 5,966
	Roadway Drainage	Standard Internal System	30%	\$ 44,747
	Illumination		11%	\$ 16,796
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 8,949
	Sewer	Minor Adjustments	4%	\$ 5,966
	Establish Turf / Erosion Control		3%	\$ 4,475
	Basic Landscaping		3%	\$ 4,475
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:	IH-30 Bridge	\$300,000	\$ 300,000
		Allowa	nce Subtotal:	\$ 400,324
		Paving and Allowa	nce Subtotal:	\$ 549,481
		Construction Contingency:	15%	\$ 37,422
		Construction C	ost TOTAL:	\$ 587,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 587,000
Engineering/Survey/Testing:		20%	\$ 117,400
Mobilization		5%	\$ 29,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 58,700
	Impact Fee Project C	ost TOTAL:	\$ 792,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Informat	tion:	Description:	Project No.	O-2
Name:	Randol Mill Rd. (10)	This project consists o	f the reconstruct	ion of an
Limits:	IH-30 EB to 120' NW of Mill Valley Cir.	existing two-lane undiv	ided asphalt fac	ility into a
	M4U-B	four-lane undivided min		-
Ultimate Class:	Minor Arterial	widening a 115' bridge	section over IH-3	30.
Length (If):	430	and the same same same same same same same sam		
Service Area(s):	0			

Roa	adway Construction Cost Pr	ojection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation		1,433	су	\$	10.50	\$	15,050
207	6" Lime Stabilization (with Lime @	32#/sy)	2,819	sy	\$	3.00	\$	8,457
307	9" Concrete Pavement		2,723	sy	\$	36.00	\$	98,040
407	6" Curb & Gutter		860	lf	\$	6.50	\$	5,590
507	4" Topsoil		621	sy	\$	5.00	\$	3,106
607	4' Concrete Sidewalk		3,440	sf	\$	5.00	\$	17,200
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	147,442
Majo	or Construction Component Allov	vances:						
	Item Description	Notes			All	owance		Item Cost
V	Prep ROW		·			3%	\$	4,423
	Traffic Control	Construction Phase	Traffic Control			3%	\$	4,423
1	Payamont Markings/Markors	Dayamant Markings	with Dika Lanca			10/	Ф	5 909

Item Description	Notes	Allowance		Item Cost		
 Prep ROW		3%	\$	4,423		
 Traffic Control	Construction Phase Traffic Control	3%	\$	4,423		
 Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	5,898		
 Roadway Drainage	Standard Internal System	30%	\$	44,233		
 Illumination		11%	\$	16,603		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
 Water	Minor Adjustments	6%	\$	8,847		
 Sewer	Minor Adjustments	4%	\$	5,898		
 Establish Turf / Erosion Control		3%	\$	4,423		
 Basic Landscaping		3%	\$	4,423		
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
 Other:	IH-30 Bridge	\$325,000	\$	325,000		
	Allowa	nce Subtotal:	\$	424,171		
Paving and Allowance Subtotal:						
	Construction Contingency:			36,992		
	Construction C	ost TOTAL:	\$	609,000		

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	609,000				
Engineering/Survey/Testing:		20%	\$	121,800				
Mobilization		5%	\$	30,450				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	60,900				
	Impact Fee Project C	ost TOTAL:	\$	822,000				

**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.

Service Area(s):

609 4' Concrete Sidewalk

701 Turn Lanes and Median Openings

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

0

Kimley-Horn and Associates, Inc.

\$

5.00

44.00 \$

157,800

125,484

updated: 10/2/2012

**Project Information:** O-3 Description: Project No. Name: Cooks Ln. (5) This project consists of the reconstruction of an Limits: Brentwood Stair Rd. to Whitney Ln. existing two-lane undivided asphalt facility into a Impact Fee Class: MA4D-B four-lane divided major arterial. **Ultimate Class:** Major Arterial Length (If): 3,945

**Roadway Construction Cost Projection** No. Item Description Quantity Unit **Unit Price Item Cost** 109 Unclassified Street Excavation 17,972 су \$ 10.50 188,703 209 6" Lime Stabilization (with Lime @ 32#/sy) 27,177 \$ 3.00 \$ 81,530 sy 309 11" Concrete Pavement 25.423 \$ 44.00 \$ 1.118.627 sy 6" Curb & Gutter \$ 409 15,780 lf 6.50 \$ 102,570 509 4" Topsoil \$ 94,242 18,848 \$ 5.00 sy

31,560

2,852

sf

sv

\$

\$

-	Train Lance and Wedian Openings	Paving Construction (	Cost Subtotal:		1,868,955				
Majo	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	56,069				
	Traffic Control	Construction Phase Traffic Control	3%	\$	56,069				
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	74,758				
	Roadway Drainage	Standard Internal System	30%	\$	560,686				
	Illumination		11%	\$	210,458				
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000				
	Water	Minor Adjustments	6%	\$	112,137				
	Sewer	Minor Adjustments	4%	\$	74,758				
	Establish Turf / Erosion Control		3%	\$	56,069				
	Basic Landscaping		3%	\$	56,069				
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000				
	Other:								
		Allowa	ınce Subtotal:	\$	1,657,073				
		Paving and Allowa			3,526,027				
		Construction Contingency:			528,904				
		Construction C	ost TOTAL:	\$	4,055,000				

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	4,055,000				
Engineering/Survey/Testing:		20%	\$	811,000				
Mobilization		5%	\$	202,750				
Previous City contribution			\$	-				
Other	CFA# 2002138		\$	(102,190)				
ROW/Easement Acquisition:	Existing Alignment	10%	\$	405,500				
	Impact Fee Project C	ost TOTAL:	\$	5,372,000				

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. 0-4 Name: Cooks Ln. (6) This project consists of the widening of a two-lane Whitney Ln. to S Maegen Cir. Limits: undivided concrete facility into a four-lane divided Impact Fee Class: MA4D-B (1/2) major arterial. **Ultimate Class:** Major Arterial Length (If): 1,380 Service Area(s): 0

Roa	adway Construction Cost Pi	ojection						
No.	No. Item Description			Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		3,220	су	\$	10.50	\$	33,810
211	6" Lime Stabilization (with Lime @	32#/sy)	4,753	sy	\$	3.00	\$	14,260
311	11" Concrete Pavement		4,447	sy	\$	44.00	\$	195,653
411	6" Curb & Gutter		4,140	lf	\$	6.50	\$	26,910
511	4" Topsoil		4,983	sy	\$	5.00	\$	24,917
611	4' Concrete Sidewalk		5,520	sf	\$	5.00	\$	27,600
701	Turn Lanes and Median Openings		998	sy	\$	44.00	\$	43,896
		P	aving Consti	ruction (	Cost	Subtotal:	\$	367,046
Majo	or Construction Component Allov	wances:						
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	11,011
	Traffic Control	Construction Phase Traffic Control				3%	\$	11,011
	Pavement Markings/Markers	Pavement Markings with Bike Lanes				4%	\$	14,682
	Roadway Drainage	Standard Internal Sy	rstem			30%	\$	110,114
	Illumination					11%	\$	41,332
	Special Drainage Structures	None Anticipated			Ф		Φ.	

	Roadway Drainage Illumination	Standard Internal System	30% 11%	110,114 41,332
,	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	22,023
	Sewer	Minor Adjustments	4%	14,682
	Establish Turf / Erosion Control		3%	\$ 11,011
	Basic Landscaping		3%	\$ 11,011
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:			
		Allowa	nce Subtotal:	\$ 246,877
		Paving and Allowa	nce Subtotal:	\$ 613,923
		Construction Contingency:	15%	\$ 92,088
Ī		Construction C	ost TOTAL:	\$ 707,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	707,000				
Engineering/Survey/Testing:		20%	\$	141,400				
Mobilization		5%	\$	35,350				
Previous City contribution			\$	-				
Other	CFA# 2003155 & 20048		\$	(98,990)				
ROW/Easement Acquisition:	Existing Alignment	10%	\$	70,700				
	Impact Fee Project	Cost TOTAL:	\$	855,000				

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 O-5

 Name:
 Cooks Ln. (7)
 This project consists of the construction of a new four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 1,440
Service Area(s): O

Roa	adway Construction Cost Projection								
No.	Item Description	Quantity	Unit	Unit Price			Item Cost		
109	Unclassified Street Excavation	6,560	су	\$	10.50	\$	68,880		
209	6" Lime Stabilization (with Lime @ 32#/sy)	9,920	sy	\$	3.00	\$	29,760		
309	11" Concrete Pavement	9,280	sy	\$	44.00	\$	408,320		
409	6" Curb & Gutter	5,760	lf	\$	6.50	\$	37,440		
509	4" Topsoil	6,880	sy	\$	5.00	\$	34,400		
609	4' Concrete Sidewalk	11,520	sf	\$	5.00	\$	57,600		
701	Turn Lanes and Median Openings	1,041	sy	\$	44.00	\$	45,804		
	Paying Construction Cost Subtotal: \$								

	<b>\$</b>	682,204							
Maj	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	20,466				
	Traffic Control	None Anticipated	0%	\$	-				
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	27,288				
	Roadway Drainage	Standard Internal System	30%	\$	204,661				
	Illumination		11%	\$	76,821				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
	Water	Minor Adjustments	6%	\$	40,932				
	Sewer	Minor Adjustments	4%	\$	27,288				
	Establish Turf / Erosion Control		3%	\$	20,466				
	Basic Landscaping		3%	\$	20,466				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:								
		Allowa	ance Subtotal:	\$	438,389				
	Paving and Allowance Subtotal:								
		Construction Contingency:			168,089				
		Construction C	ost 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	CFA# 2005157		\$	(16,163)					
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	257,800					
	\$	1,853,000							

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area S

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
S-1	MA4D-B	Silver Creek Rd. (1)	W. City Limits to Existing Silver Creek	\$ 3,825,000
S-2	MA4D-B	Silver Creek Rd. (2)	570' N of Heron Dr. to Brewer HS Entrance	\$ 12,251,000
S-3	MA4D-B	Silver Creek Rd. (3)	Brewer HS Entrance to Loop 820 W SBFR	\$ 1,542,173
S-4	MA4D-B	Academy Blvd. (1)	Silver Creek Rd. to 130' N. of Sparrow Hawk Ln.	\$ 4,131,000
S-5	MA4D-B	Academy Blvd. (2)	75' S. of Caravelle Ct. to Future Amber Ridge Dr.	\$ 2,493,000
S-6	P6D-B	White Settlement Rd. (1)	W. City Limits to Silver Ridge Blvd.	\$ 11,078,000
S-7	P6D-B	White Settlement Rd. (2)	Silver Ridge Blvd. to 430' W. of Yuchi Trl	\$ 1,388,000
S-8	P6D-B	White Settlement Rd. (3)	430' W. of Yuchi Trl to 300' W. of Chapel Creek Blvd.	\$ 5,949,000
S-9	P6D (1/3)	White Settlement Rd. (4)	300' W. of Chapel Creek to Academy Blvd.	\$ 1,100,000
S-10	P6D (1/3)	White Settlement Rd. (5)	Academy Blvd. to Clifford St.	\$ 986,000
S-11	M4U	Silver Ridge Blvd.	135' S. of Broken Arrow Tr. to 120' N of Fandor St.	\$ 2,677,000
S-12	MA4D-B	Westpoint Blvd. (1)	W. City Limits to Basset Locke Dr.	\$ 4,695,000
S-13	MA4D-B (1/2)	Westpoint Blvd. (2)	Basset Locke Dr. to American Flyer Blvd.	\$ 1,085,000
S-14	MA4D-B	Westpoint Blvd. (3)	Academy Blvd. to Existing Alemeda St.	\$ 2,646,000
S-15	MA4D	Westpoint Blvd. (4)	Existing Alemeda St. to Loop 820 W SBFR	\$ 1,755,000
S-16	M4U-B	Alemeda St. (1)	Academy Blvd. to 525' N of Westpoint Blvd.	\$ 1,567,000
S-17	M4U	Alemeda St. (2)	525' N of Westpoint Blvd. to Future Academy Blvd.	\$ 3,215,000
S-18	M4U-B	Alemeda St. (3)	IH-30 WBFR to IH-30	\$ 1,235,000
S-19	M4U	N-S Minor Arterial	Westpoint Blvd. to Old Weatherford Rd.	\$ 4,657,000
S-20	M4U	Old Weatherford Rd. (1)	645' E of County Rd 1029 to Chapel Creek Blvd.	\$ 6,546,000
S-21	M4U (1/2)	Amber Ridge Dr. (1)	Chapel Creek Blvd. to Wind Star Way	\$ 601,000
S-22	M4U	Amber Ridge Dr. (2)	Wind Star Way to Future Academy Blvd	\$ 1,143,000
S-23	M4U-B	Chapin Rd. (1)	W. City Limits to 1,800' E. of W. City Limits	\$ 1,991,000
S-24	M4U-B	Chapin Rd. (2)	1,800' E. of W. City Limits to 470' W of Wakecrest Dr.	\$ 1,930,000
S-25	MA4D	Academy Blvd. (3)	Future Amber Ridge to IH-30 WBFR	\$ 3,632,000
S-26	MA4D	Chapel Creek Blvd	Chapin Rd. to IH-30	\$ 967,698

TOTAL \$ 85,085,871

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50 | \$

updated: 10/2/2012

**Item Cost** 

131,781

Project Information: Description: Project No. S-1

Name: Silver Creek Rd. (1) This project consists of the construction of a new

Quantity

12,551

Unit

Cy

\$

Limits: W. City Limits to Existing Silver Creek four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 2,755

109 Unclassified Street Excavation

Service Area(s): S

No. Item Description

12,001	Сy	Ψ	10.50	Ψ	131,701	
09 6" Lime Stabilization (with Lime @ 32#/sy) 18,979				\$	56,937	
17,754 sy \$					781,196	
11,020	lf	\$	6.50	\$	71,630	
13,163	sy	\$	5.00	\$	65,814	
22,040	sf	\$	5.00	\$	110,200	
1,992	sy	\$	44.00	\$	87,632	
Paving Const	ruction (	Cost S	Subtotal:	\$	1,305,189	
		Alle	owance		Item Cost	
			3%	\$	39,156	
			0%	\$	-	
s with Bike Lanes			4%	\$	52,208	
System			30%	\$	391,557	
			11%	\$	146,974	
		\$	-	\$	-	
					78,311	
					52,208	
					39,156	
					39,156	
ent per Half Mile		:	\$150,000	\$	150,000	
					988,724	
Allowance Subtotal:						
					2,293,913	
					344,087	
Construc	ction C	ost 7	TOTAL:	\$	2,638,000	
	18,979 17,754 11,020 13,163 22,040 1,992 Paving Construction Continuation Continuat	18,979 sy 17,754 sy 11,020 lf 13,163 sy 22,040 sf 1,992 sy Paving Construction Construction Construction Construction Contingency:	18,979 sy \$ 17,754 sy \$ 11,020 lf \$ 13,163 sy \$ 22,040 sf \$ 1,992 sy \$  Paving Construction Cost \$  Allowance \$  Paving and Allowance \$ ruction Contingency:	18,979   sy   \$ 3.00     17,754   sy   \$ 44.00     11,020   If   \$ 6.50     13,163   sy   \$ 5.00     22,040   sf   \$ 5.00     1,992   sy   \$ 44.00     Paving Construction Cost Subtotal:    Allowance   3%     0%     0%     swith Bike Lanes   4%     3%     4%     4%     3%     4%     3%     4%     3%     4%     3%     4%     3%     4%     3%     4%     3%     4%     3%     4%     3%     4%     5     6%     4%     3%     4%     3%     4%     5     6%     4%     5     6%     4%     5     6%     4%     5     6%     4%     5     6%     4%     5     6%     4%     5     6%     7%     8%     8%     9%     9%     9%     9%     10%	18,979   Sy   \$ 3.00   \$   17,754   Sy   \$ 44.00   \$   11,020   If   \$ 6.50   \$   13,163   Sy   \$ 5.00   \$   22,040   Sf   \$ 5.00   \$   22,040   Sf   \$ 5.00   \$   \$   \$   \$   \$   \$   \$   \$   \$	

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,638,000
Engineering/Survey/Testing:		20%	\$ 527,600
Mobilization		5%	\$ 131,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 527,600
	\$ 3,825,000		

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: Project No. **S-2** Name: Silver Creek Rd. (2) This project consists of the

Limits: 570' N of Heron Dr. to Brewer HS Entrance

Impact Fee Class: MA4D-B **Ultimate Class:** Major Arterial

Length (If): 9,075 Service Area(s): S

reconstruction of an existing two-lane undivided asphalt facility into a four-

lane divided major arterial.

Roa	dway Construction Cost Proje	ction					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation		41,342	су	\$	10.50	\$ 434,088
209	6" Lime Stabilization (with Lime @ 32#	<sup>‡</sup> /sy)	62,517	sy	\$	3.00	\$ 187,550
309	11" Concrete Pavement		58,483	sy	\$	44.00	\$ 2,573,267
409	6" Curb & Gutter		36,300	lf	\$	6.50	\$ 235,950
509	4" Topsoil		43,358	sy	\$	5.00	\$ 216,792
609	4' Concrete Sidewalk		72,600	sf	\$	5.00	\$ 363,000
701	Turn Lanes and Median Openings		6,560	sy	\$	44.00	\$ 288,661
		Pa	ving Consti	ruction (	Cost	Subtotal:	\$ 4,299,306
Majo	or Construction Component Allowand	ces:					
	Item Description	Notes			All	owance	Item Cost
	Prep ROW					3%	\$ 128,979

Maj	Major Construction Component Allowances:						
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	128,979		
	Traffic Control	Construction Phase Traffic Control	3%	\$	128,979		
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	171,972		
	Roadway Drainage	Standard Internal System	30%	\$	1,289,792		
	Illumination		11%	\$	484,133		
$\checkmark$	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000		
	Water	Minor Adjustments	6%	\$	257,958		
	Sewer	Minor Adjustments	4%	\$	171,972		
	Establish Turf / Erosion Control		3%	\$	128,979		
	Basic Landscaping		3%	\$	128,979		
$\checkmark$	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	450,000		
	Other:		\$0	\$	-		
		Allowa	nce Subtotal:	\$	3,591,745		
		Paving and Allowa	nce Subtotal:	\$	7,891,051		
		Construction Contingency:	15%	\$	1,183,658		
		Construction C	ost TOTAL:	\$	9,075,000		

Impact Fee Project Cost Sum								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	9,075,000				
Engineering/Survey/Testing:		20%	\$	1,815,000				
Mobilization		5%	\$	453,750				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	907,500				
	Impact Fee Project Cost TOTAL:							

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.

# City of Fort Worth 2013 Transportation Impact Fee Study

Service Area(s):

Conceptual Level Project Cost Projection

S

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. S-3
Name:	Silver Creek Rd. (3)		This completed project consisted of the
Limits:	Brewer HS Entrance to Loop 820 W SBFR	<u>.</u>	construction of a four-lane divided
Impact Fee Class:	MA4D-B		major arterial.
Ultimate Class:	Minor Arterial		•
Lenath (If):	1.650		

Impact Fee Project Cost Summary Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 1,542,173
	Impact Fee Project C	ost TOTAL:	\$ 1,542,173

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. S-4
Name: Academy Blvd. (1) This project consists of the

Limits: Silver Creek Rd. to 130' N. of Sparrow Hawk Ln. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 2,990 Service Area(s): S

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	13,621	су	\$	10.50	\$ 143,022
209	6" Lime Stabilization (with Lime @ 32#/sy)	20,598	sy	\$	3.00	\$ 61,793
309	11" Concrete Pavement	19,269	sy	\$	44.00	\$ 847,831
409	6" Curb & Gutter	11,960	lf	\$	6.50	\$ 77,740
509	4" Topsoil	14,286	sy	\$	5.00	\$ 71,428
609	4' Concrete Sidewalk	23,920	sf	\$	5.00	\$ 119,600
701	Turn Lanes and Median Openings	2,162	sy	\$	44.00	\$ 95,107
	·	Paving Constr	uction (	Cost	Subtotal:	\$ 1,416,521

Maio	or Construction Component Allow	ances:		
maj	Item Description	Notes	Allowance	Item Cost
V	Prep ROW		3%	\$ 42,496
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 56,661
	Roadway Drainage	Standard Internal System	30%	\$ 424,956
	Illumination		11%	\$ 159,511
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 84,991
	Sewer	Minor Adjustments	4%	\$ 56,661
	Establish Turf / Erosion Control		3%	\$ 42,496
	Basic Landscaping		3%	\$ 42,496
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
	Other:		\$0	\$ -
		Allowa	ance Subtotal:	\$ 1,060,267
		Paving and Allowa		\$ 2,476,787
		Construction Contingency:	15%	\$ 371,518
		Construction C	ost TOTAL:	\$ 2,849,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,849,000
Engineering/Survey/Testing:		20%	\$ 569,800
Mobilization		5%	\$ 142,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 569,800
	\$ 4,131,000		

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: Project No. **S-5** Name:

Academy Blvd. (2) This project consists of the Limits:

75' S. of Caravelle Ct. to Future Amber Ridge Dr. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial. **Ultimate Class:** Major Arterial

Length (If): 1,920 Service Area(s): S

No.	No.   Item Description   Quantity   Unit   Unit Price					Item Cost		
109	Unclassified Street Excavation		8,747	су	\$	10.50	\$	91,840
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	13,227	sy	\$	3.00	\$	39,680
309	11" Concrete Pavement		12,373	sy	\$	44.00	\$	544,427
409	6" Curb & Gutter		7,680	lf	\$	6.50	\$	49,920
509	4" Topsoil		9,173	sy	\$	5.00	\$	45,867
609	4' Concrete Sidewalk		15,360	sf	\$	5.00	\$	76,800
701	Turn Lanes and Median Openings		1,388	sy	\$	44.00	\$	61,072
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$	909,605
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
$\checkmark$	Prep ROW					3%	\$	27,288
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	36,384
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	272,882
	Illumination					11%	\$	102,428
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		54,576
	Sewer	Minor Adjustments				4%		36,384
	Establish Turf / Erosion Control					3%		27,288
$\checkmark$	Basic Landscaping					3%		27,288
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0	_	-
				Allowa	ınce S	Subtotal:	\$	584,519
			Paving and					1,494,124
		Constru	uction Conti	ngency:		15%	\$ <b>\$</b>	224,119
	Construction Cost TOTAL:							1,719,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,719,000
Engineering/Survey/Testing:		20%	\$ 343,800
Mobilization		5%	\$ 85,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 343,800
	\$ 2,493,000		

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

White Settlement Rd. (1)

Limits:

Impact Fee Class:

P6D-B

Description:

Project No.

S-6

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a six-lane divided principal arterial.

Ultimate Class: Principal Arterial

Length (If): 6,025 Service Area(s): S, ETJ

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
113	Unclassified Street Excavation	36,819	су	\$	10.50	\$	386,604
213	6" Lime Stabilization (with Lime @ 32#/sy)	56,233	sy	\$	3.00	\$	168,700
313	11" Concrete Pavement	53,556	sy	\$	44.00	\$	2,356,444
413	6" Curb & Gutter	24,100	lf	\$	6.50	\$	156,650
513	4" Topsoil	27,447	sy	\$	5.00	\$	137,236
613	4' Concrete Sidewalk	48,200	sf	\$	5.00	\$	241,000
701	Turn Lanes and Median Openings	4,356	sy	\$	44.00	\$	191,645
	Paving Construction Cost Subtotal: \$						

<b>Major Construction Com</b>	ponent Allowances:			
Item Description	Notes	5	Allowance	Item Cost
√ Prep ROW			3%	\$ 109,148
√ Traffic Control	Constr	uction Phase Traffic Control	3%	\$ 109,148
√ Pavement Markings/I	Markers Pavem	ent Markings with Bike Lanes	4%	\$ 145,531
√ Roadway Drainage	Standa	rd Internal System	30%	\$ 1,091,484
√ Illumination			11%	\$ 409,697
√ Special Drainage Stre	uctures Three	Minor Stream Crossings	\$ 750,000	\$ 750,000
√ Water	Minor A	Adjustments	6%	\$ 218,297
√ Sewer	Minor A	Adjustments	4%	\$ 145,531
√ Establish Turf / Erosi	on Control		3%	\$ 109,148
√ Basic Landscaping			3%	\$ 109,148
√ Intersections (Signal, Rour	ndabout, etc.) Assum	e Improvement per Half Mile	\$150,000	\$ 300,000
Other:			\$0	\$ -
		Allowa	ınce Subtotal:	\$ 3,497,134
	\$ 7,135,414			
	\$ 1,070,312			
		Construction C	ost TOTAL:	\$ 8,206,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,206,000
Engineering/Survey/Testing:		20%	\$ 1,641,200
Mobilization		5%	\$ 410,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 820,600
	Impact Fee Projec	t Cost TOTAL:	\$ 11,078,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. S-7
Name: White Settlement Rd. (2) This project consists of the

Name: White Settlement Rd. (2)

Limits: Silver Ridge Blvd. to 430' W. of Yuchi Trl

This project consists of the reconstruction of an existin

Limits: Silver Ridge Blvd. to 430' W. of Yuchi Trl reconstruction of an existing two-lane undivided asphalt facility into a six-lane

Ultimate Class: Principal Arterial divided principal arterial.

Length (If): 885 Service Area(s): S, ETJ

No.	No.   Item Description   Quantity   Unit			Un	it Price		Item Cost	
113	Unclassified Street Excavation		5,408	су	\$	10.50	\$	56,788
213	6" Lime Stabilization (with Lime @ 3	2#/sy)	8,260	sy	\$	3.00	\$	24,780
313	11" Concrete Pavement		7,867	sy	\$	44.00	\$	346,133
413	6" Curb & Gutter		3,540	lf	\$	6.50	\$	23,010
513	4" Topsoil		4,032	sy	\$	5.00	\$	20,158
613	4' Concrete Sidewalk		7,080	sf	\$	5.00	\$	35,400
701	Turn Lanes and Median Openings		640	sy	\$	44.00	\$	28,150
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$	534,420
Majo	or Construction Component Allowa	inces:			_			
	Item Description	Notes			Allo	owance		Item Cost
1	Prep ROW					3%		16,033
	Traffic Control	Construction Phase	Traffic Control			3%		16,033
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		21,377
√.	Roadway Drainage	Standard Internal Sy	stem			30%		160,326
	Illumination					11%	\$	60,180
l .	Special Drainage Structures	None Anticipated			\$	-	\$	-
√.	Water	Minor Adjustments				6%		32,065
√,	Sewer	Minor Adjustments				4%		21,377
√,	Establish Turf / Erosion Control					3%		16,033
1	Basic Landscaping					3%		16,033
	Intersections (Signal, Roundabout, etc.)				\$0		-	
	Other: \$0			_	-			
Allowance Subtotal:						\$	359,454	
			Paving an					893,874
		Constru	uction Conti			15%		134,081
			Construc	ction C	ost 1	OTAL:	\$	1,028,000

Impact Fee Project Cost Sun	nmary		
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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	<b>S-8</b>
Name:	White Settlement Rd. (3)		This project cons	ists of the
Limits:	430' W. of Yuchi Trl to 300' W. of Chap	el Creek Blvd.	reconstruction of	an existing
Impact Fee Class:	P6D-B		two-lane undivide	d asphalt
Ultimate Class:	Principal Arterial		facility into a six-l	•
Length (If):	3,645		principal arterial.	
Service Area(s):	S		principal di toriun	

No.	No.   Item Description   Quantity   Unit   Unit Price				Item Cost			
113	Unclassified Street Excavation		22,275	су	\$	10.50	\$	233,888
213	6" Lime Stabilization (with Lime @ 3	32#/sy)	34,020	sy	\$	3.00	\$	102,060
313	11" Concrete Pavement		32,400	sy	\$	44.00	\$	1,425,600
413	6" Curb & Gutter		14,580	lf	\$	6.50	\$	94,770
513	4" Topsoil		16,605	sy	\$	5.00	\$	83,025
613	4' Concrete Sidewalk		29,160	sf	\$	5.00	\$	145,800
701	Turn Lanes and Median Openings		2,635	sy	\$	44.00	\$	115,941
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	2,201,084
Majo	or Construction Component Allows							
	Item Description	Notes			All	owance		Item Cost
√,	Prep ROW					3%	-	66,033
√,	Traffic Control	Construction Phase				3%		66,033
√,	Pavement Markings/Markers	Pavement Markings				4%	\$	88,043
√,	Roadway Drainage	Standard Internal Sy	stem			30%		660,325
	Illumination					11%	-	247,858
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	132,065
	Sewer	Minor Adjustments				4%		88,043
	Establish Turf / Erosion Control					3%		66,033
	Basic Landscaping					3%	-	66,033
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile \$150,000				150,000		
	Other:	\$0			\$	-		
	Allowance Subtotal:				\$	1,630,465		
						_		
Paving and Allowance Subtotal:						3,831,549		
		Constru	uction Conti			15%		574,732
			Construc	ction C	ost <sup>-</sup>	TOTAL:	\$	4,407,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,407,000
Engineering/Survey/Testing:		20%	\$ 881,400
Mobilization		5%	\$ 220,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 440,700
	Impact Fee Project C	ost TOTAL:	\$ 5,949,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. S-9

Name: White Settlement Rd. (4) This project consists of the

Limits: 300' W. of Chapel Creek to Academy Blvd. construction of two additional through lanes within the existing median.

Ultimate Class: Principal Arterial

Length (If): 2,965 Service Area(s): S

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
114	Unclassified Street Excavation	9,224	су	\$	10.50	\$	96,857
214	6" Lime Stabilization (with Lime @ 32#/sy)	8,895	sy	\$	3.00	\$	26,685
314	11" Concrete Pavement	8,236	sy	\$	44.00	\$	362,389
414	6" Curb & Gutter	5,930	lf	\$	6.50	\$	38,545
514	4" Topsoil	9,224	sy	\$	5.00	\$	46,122
614	4' Concrete Sidewalk	0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings	2,143	sy	\$	44.00	\$	94,312
			4:		0 1 / / 1	_	201 200

Paving Construction Cost Subtotal: \$ 664,909

Majo	or Construction Component Allow	ances:				
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	19,947	
	Traffic Control	Construction Phase Traffic Control	3%	\$	19,947	
	Pavement Markings/Markers		3%	\$	19,947	
	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		3%	\$	19,947	
	Basic Landscaping		3%	\$	19,947	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:		\$0	\$	-	
		Allowa	ince Subtotal:	\$	99,736	
	_	Paving and Allowa	nce Subtotal:	\$	764,646	
	Construction Contingency: 15%					
		Construction C	ost TOTAL:	\$	880,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 880,000
Engineering/Survey/Testing:		20%	\$ 176,000
Mobilization		5%	\$ 44,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project	Cost TOTAL:	\$ 1,100,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Item Cost

685,989

102,898

789,000

\$

 Project Information:
 Description:
 Project No.
 S-10

 Name:
 White Settlement Rd. (5)
 This project consists of the construction of two additional through lanes within the existing median.

Quantity

Unit

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

**Unit Price** 

Impact Fee Class: P6D (1/3)
Ultimate Class: Principal Arterial

Length (If): 2,660 Service Area(s): S

No. Item Description

114	Unclassified Street Excavation		8,276	су	\$	10.50	\$ 86,893
214	14 6" Lime Stabilization (with Lime @ 32#/sy) 7,980 sy			\$	3.00	\$ 23,940	
314	11" Concrete Pavement		7,389	sy	\$	44.00	\$ 325,111
414	6" Curb & Gutter		5,320	lf	\$	6.50	\$ 34,580
514	4" Topsoil		8,276	sy	\$	5.00	\$ 41,378
	•		0	sf	\$	5.00	\$ -
701	Turn Lanes and Median Openings		1,923	sy	\$	44.00	\$ 84,610
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 596,512
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			All	owance	Item Cost
	Prep ROW					3%	\$ 17,895
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 17,895
	Pavement Markings/Markers					3%	\$ 17,895
	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					3%	\$ 17,895
	Basic Landscaping					3%	\$ 17,895
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:				\$0	\$ -	
Allowance Subtotal:						\$ 89,477	

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 789,000
Engineering/Survey/Testing:		20%	\$ 157,800
Mobilization		5%	\$ 39,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$ -
	Impact Fee Project	Cost TOTAL:	\$ 986,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

updated: 10/2/2012

**Item Cost** 

1,846,000

Project Information:

Name:
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Description:

Description:
Project No.

S-11

This project consists of the construction of a new four-lane undivided minor arterial.

Quantity

Unit

Construction Cost TOTAL: \$

Length (If): 2,680 Service Area(s): S

No. Item Description

	itom Boodinption		quaritity	01111	0:			itom ooot
106	Unclassified Street Excavation		8,636	су	\$	10.50	\$	90,673
206	6 6" Lime Stabilization (with Lime @ 32#/sy) 16,973 sy			\$	3.00	\$	50,920	
306	9" Concrete Pavement		16,378	sy	\$	36.00	\$	589,600
406	6" Curb & Gutter		5,360	lf	\$	6.50	\$	34,840
506	4" Topsoil		4,467	sy	\$	5.00	\$	22,333
606	4' Concrete Sidewalk		21,440	sf	\$	5.00	\$	107,200
701	Turn Lanes and Median Openings	_	0					
		Pa	ving Const	ruction (	Cost	Subtotal:	\$	895,567
Majo	or Construction Component Allowa	inces:						
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	26,867
1	Traffic Control	None Anticipated				0%	\$	-
$\sqrt{}$	Pavement Markings/Markers					2%		19,225
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%		268,670
	Illumination					11%	\$	100,847
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		53,734
	Sewer	Minor Adjustments				4%		35,823
	Establish Turf / Erosion Control					3%	\$	26,867
	Basic Landscaping					3%	\$	26,867
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:	\$0				\$	-	
Allowance Subtotal:							\$	708,900
			Paving an					1,604,467
		Constru	uction Conti	ngency:		15%	\$	240,670
			_		_		_	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,846,000				
Engineering/Survey/Testing:		20%	\$	369,200				
Mobilization		5%	\$	92,300				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	369,200				
	\$	2,677,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

1,192,697

2,815,300

3,238,000

\$

422,295

Project Information: Description: Project No. S-12

Name: Westpoint Blvd. (1) This project consists of the construction of a new

Quantity Unit Unit Price

Allowance Subtotal:

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

Limits: W. City Limits to Basset Locke Dr. four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 3,425
Service Area(s): S

No. Item Description

109	Unclassified Street Excavation		15,603	су	\$	10.50	\$ 163,829
209	6" Lime Stabilization (with Lime @ 32	#/sy)	23,594	sy	\$	3.00	\$ 70,783
309	11" Concrete Pavement		22,072	sy	\$	44.00	\$ 971,178
409	6" Curb & Gutter		13,700	lf	\$	6.50	\$ 89,050
509	4" Topsoil		16,364	sy	\$	5.00	\$ 81,819
609	4' Concrete Sidewalk		27,400	sf	\$	5.00	\$ 137,000
701	Turn Lanes and Median Openings		2,476	sy	\$	44.00	\$ 108,944
		Pa	ving Consti	ruction (	Cost S	ubtotal:	\$ 1,622,603
Majo	or Construction Component Allowan	ices:					
	Item Description	Notes			Allo	wance	Item Cost
	Prep ROW					3%	\$ 48,678
	Traffic Control	None Anticipated				0%	\$ -
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 64,904
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 486,781
	Illumination					11%	\$ 182,717
	Special Drainage Structures	None Anticipated			\$	-	\$ -
$\sqrt{}$	Water	Minor Adjustments				6%	\$ 97,356
$\sqrt{}$	Sewer	Minor Adjustments				4%	\$ 64,904
	Establish Turf / Erosion Control					3%	\$ 48,678
$\sqrt{}$	Basic Landscaping					3%	\$ 48,678
	Intersections (Signal, Roundabout, etc.)	Assume Improvemer	nt per Half Mile		9	\$150,000	\$ 150,000
	Other:					\$0	\$ -

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	3,238,000				
Engineering/Survey/Testing:		20%	\$	647,600				
Mobilization		5%	\$	161,900				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	647,600				
	\$	4,695,000						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. S-13
Name:	Westpoint Blvd. (2)		This project consists of the widening of
Limits:	Basset Locke Dr. to American Flyer Bl	vd.	an existing two-lane undivided concrete
Impact Fee Class:	MA4D-B (1/2)		facility into a four-lane divided major
Ultimate Class:	Major Arterial		arterial.
Length (If):	1,570		
Service Area(s):	S		

No.   Item Description   Quantity   Unit			Un	it Price	Item Cost		
111	Unclassified Street Excavation		3,663	су	\$	10.50	\$ 38,465
211	6" Lime Stabilization (with Lime @ 3:	2#/sy)	5,408	sy	\$	3.00	\$ 16,223
311	11" Concrete Pavement		5,059	sy	\$	44.00	\$ 222,591
411	6" Curb & Gutter		4,710	lf	\$	6.50	\$ 30,615
511	4" Topsoil		5,669	sy	\$	5.00	\$ 28,347
611	4' Concrete Sidewalk		6,280	sf	\$	5.00	\$ 31,400
701	Turn Lanes and Median Openings		1,135	sy	\$	44.00	\$ 49,939
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$ 417,581
Majo	or Construction Component Allowa						
	Item Description	Notes			Allo	owance	Item Cost
$\sqrt{}$	Prep ROW					3%	 12,527
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$ 12,527
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 16,703
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%	125,274
	Illumination					11%	\$ 47,023
	Special Drainage Structures	None Anticipated			\$	-	\$ -
$\sqrt{}$	Water	Minor Adjustments				6%	25,055
$\sqrt{}$	Sewer	Minor Adjustments				4%	16,703
	Establish Turf / Erosion Control					3%	12,527
	Basic Landscaping					3%	\$ 12,527
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:	\$0			-		
Allowance Subtotal:							\$ 280,868
Paving and Allowance Subtotal:						698,449	
Construction Contingency: 15%						104,767	
						\$ 804,000	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	804,000				
Engineering/Survey/Testing:		20%	\$	160,800				
Mobilization		5%	\$	40,200				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	80,400				
	Impact Fee Project Cost TOTAL:							

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. S-14
Name:	Westpoint Blvd. (3)		This project consists of the
Limits:	Academy Blvd. to Existing Alemeda St	t.	reconstruction of an existing two-lane
Impact Fee Class:	MA4D-B		undivided asphalt facility into a four-
Ultimate Class:	Major Arterial		lane divided major arterial.
Length (If):	2,150		
Service Area(s):	S		

No.	No. Item Description Quantity Unit Unit Price				it Price		Item Cost	
109	Unclassified Street Excavation		9,794	су	\$	10.50	\$	102,842
209	6" Lime Stabilization (with Lime @ 32	2#/sy)	14,811	sy	\$	3.00	\$	44,433
309	11" Concrete Pavement		13,856	sy	\$	44.00	\$	609,644
409	6" Curb & Gutter		8,600	lf	\$	6.50	\$	55,900
509	4" Topsoil		10,272	sy	\$	5.00	\$	51,361
	4' Concrete Sidewalk		17,200	sf	\$	5.00	\$	86,000
701	Turn Lanes and Median Openings		1,554	sy	\$	44.00	\$	68,388
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	1,018,568
Maio	or Construction Component Allowa	nces:						
	Item Description	Notes			Alle	owance	П	Item Cost
	Prep ROW					3%	\$	30,557
$\checkmark$	Traffic Control	Construction Phase	Traffic Control			3%	\$	30,557
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	40,743
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	305,571
	Illumination					11%	\$	114,698
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	61,114
	Sewer	Minor Adjustments				4%	\$	40,743
	Establish Turf / Erosion Control					3%	\$	30,557
$\checkmark$	Basic Landscaping					3%	\$	30,557
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	her: \$0					-		
Allowance Subtotal:						\$	685,097	
Paving and Allowance Subtotal:						\$	1,703,665	
Construction Contingency: 15%					\$	255,550		
			Construc	-		ΓΟΤΑL:	\$	1,960,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,960,000
Engineering/Survey/Testing:		20%	\$ 392,000
Mobilization		5%	\$ 98,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 196,000
	\$ 2,646,000		

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Limits:

Impact Fee Class:

Ultimate Class:

Ultimate Class:

Description:

Description:

Project No.

S-15

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Length (If): 1,475 Service Area(s): S

	Item Description	,	Quantity	Unit	Uni	it Price		Item Cost
108	Unclassified Street Excavation		6,556	су	\$	10.50	\$	68,833
208	6" Lime Stabilization (with Lime @ 3	2#/sy)	9,833	sy	\$	3.00	\$	29,500
308	11" Concrete Pavement		9,178	sy	\$	44.00	\$	403,822
408	6" Curb & Gutter		5,900	lf	\$	6.50	\$	38,350
508	4" Topsoil		7,375	sy	\$	5.00	\$	36,875
608	4' Concrete Sidewalk		11,800	sf	\$	5.00	\$	59,000
701	Turn Lanes and Median Openings		1,066	sy	\$	44.00	\$	46,917
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	683,298
							_	
Majo	or Construction Component Allowa	•			A 11 -			li O i
	Item Description	Notes			Allo	owance	_	Item Cost
٧,	Prep ROW					3%	\$	20,499
1	Traffic Control	Construction Phase	Traffic Control			3%	\$	20,499
٧,	Pavement Markings/Markers					2%	\$	14,668
٧,	Roadway Drainage	Standard Internal Sy	stem			30%	\$	204,989
1	Illumination					11%	\$	76,944
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
√,	Water	Minor Adjustments				6%	\$	40,998
√,	Sewer	Minor Adjustments				4%	\$	27,332
√,	Establish Turf / Erosion Control					3%	\$	20,499
V	Basic Landscaping					3%	\$	20,499
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other: \$0				\$	-		
Allowance Subtotal:							\$	446,927
							Ļ	
Paving and Allowance Subtotal:							1,130,225	
Construction Contingency: 15%						\$	169,534	
			Constru	ction C	ost T	OTAL:	\$	1,300,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,300,000
Engineering/Survey/Testing:		20%	\$ 260,000
Mobilization		5%	\$ 65,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 130,000
	\$ 1,755,000		

**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.

**Project Information:** 

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Description: Project No. S-16

Name: Alemeda St. (1) This project consists of the

Limits: Academy Blvd. to 525' N of Westpoint Blvd. reconstruction of an existing two-lane undivided asphalt facility into a four-

Ultimate Class: Minor Arterial lane divided major arterial.

Length (If): 1,760
Service Area(s): S

No.	No. Item Description Quantity Unit Unit			it Price	Item Cost		
107	Unclassified Street Excavation		5,867	су	\$	10.50	\$ 61,600
207	6" Lime Stabilization (with Lime @ 3:	2#/sy)	11,538	sy	\$	3.00	\$ 34,613
307	9" Concrete Pavement		11,147	sy	\$	36.00	\$ 401,280
407	6" Curb & Gutter		3,520	lf	\$	6.50	\$ 22,880
507	4" Topsoil		2,542	sy	\$	5.00	\$ 12,711
607	4' Concrete Sidewalk		14,080	sf	\$	5.00	\$ 70,400
701	Turn Lanes and Median Openings		0				
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$ 603,484
Majo	or Construction Component Allowa						
	Item Description	Notes			Alle	owance	Item Cost
V	Prep ROW					3%	\$ 18,105
V	Traffic Control	Construction Phase	Traffic Control			3%	\$ 18,105
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	 24,139
V	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 181,045
V	Illumination					11%	\$ 67,957
1 .	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 36,209
√.	Sewer	Minor Adjustments				4%	\$ 24,139
√.	Establish Turf / Erosion Control					3%	\$ 18,105
	Basic Landscaping					3%	\$ 18,105
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other: \$0			\$ -			
	Allowance Subtotal:					\$ 405,908	
			Paving an				1,009,392
	Construction Contingency: 15%						\$ 151,409

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,161,000
Engineering/Survey/Testing:		20%	\$ 232,200
Mobilization		5%	\$ 58,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 116,100
	Impact Fee Proje	ect Cost TOTAL:	\$ 1,567,000

**Construction Cost TOTAL:** 

**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.

1,161,000

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Description:

Project No.

S-17

Name:

Alemeda St. (2)

This project consists of the

Name: Alemeda St. (2) This project consists of the Limits: 525' N of Westpoint Blvd. to Future Academy Blvd. construction of a new four-lane

Impact Fee Class: M4U undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 3,275 Service Area(s): S

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	nit Price	Item Cost
106	Unclassified Street Excavation	10,553	су	\$	10.50	\$ 110,804
206	6" Lime Stabilization (with Lime @ 32#/sy)	20,742	sy	\$	3.00	\$ 62,225
306	9" Concrete Pavement	20,014	sy	\$	36.00	\$ 720,500
406	6" Curb & Gutter	6,550	lf	\$	6.50	\$ 42,575
506	4" Topsoil	5,458	sy	\$	5.00	\$ 27,292
606	4' Concrete Sidewalk	26,200	sf	\$	5.00	\$ 131,000
701	Turn Lanes and Median Openings	0				
	Р	aving Consti	ruction (	Cost	Subtotal:	\$ 1,094,396
Majo	r Construction Component Allowances:					
	Item Description Notes			All	owance	Item Cost

Maj	or Construction Component Allowa	ances:					
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	32,832		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers		2%	\$	23,493		
	Roadway Drainage	Standard Internal System	30%	\$	328,319		
	Illumination		11%	\$	123,237		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	65,664		
	Sewer	Minor Adjustments	4%	\$	43,776		
	Establish Turf / Erosion Control		3%	\$	32,832		
	Basic Landscaping		3%		32,832		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:		\$0	\$	-		
		Allowa	nce Subtotal:	\$	832,984		
	Paving and Allowance Subtotal:						
		Construction Contingency:	15%	\$	289,107		
		Construction C	ost TOTAL:	\$	2,217,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,217,000			
Engineering/Survey/Testing:		20%	\$	443,400			
Mobilization		5%	\$	110,850			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	443,400			
	Impact Fee Proj	ject Cost TOTAL:	\$	3,215,000			

**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.

No. Item Description

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Item Cost** 

<b>Project Informat</b>	tion:	Description:	Project No.	S-18
Name:	Alemeda St. (3)	This project consists	of the reconstru	ction of an
Limits:	IH-30 WBFR to IH-30	existing two-lane undi	vided asphalt fa	acility into a
Impact Fee Class:	M4U-B	four-lane divided majo	or arterial. This i	includes
Ultimate Class:	Minor Arterial	widening a 165' bridge		
Length (If):	635			
Service Area(s):	S			

Quantity

Unit

**Unit Price** 

107	Unclassified Street Excavation		2,117	су	\$	10.50	\$ 22,225
207	07 6" Lime Stabilization (with Lime @ 32#/sy) 4,163 sy				\$	3.00	\$ 12,488
307	7 9" Concrete Pavement 4,022 sy				\$	36.00	\$ 144,780
407					\$	6.50	\$ 8,255
507	4" Topsoil		917	sy	\$	5.00	\$ 4,586
607	4' Concrete Sidewalk		5,080	sf	\$	5.00	\$ 25,400
701	Turn Lanes and Median Openings		0				
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 217,734
Majo	or Construction Component Allows	ances:					
	Item Description	Notes			Alle	owance	Item Cost
	Prep ROW					3%	\$ 6,532
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 6,532
	Pavement Markings/Markers					2%	\$ 4,674
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 65,320
	Illumination					11%	\$ 24,518
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 13,064
	Sewer	Minor Adjustments				4%	\$ 8,709
	Establish Turf / Erosion Control					3%	\$ 6,532
	Basic Landscaping					3%	\$ 6,532
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	√ Other: IH-30 Bridge \$5				\$500,000	\$ 500,000	
	Allowance Subtotal:						\$ 642,414
			Paving an				860,149
		Constru	uction Conti	ngency:		15%	\$ 54,022
			Constru	ction C	ost <sup>-</sup>	TOTAL:	\$ 915,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	915,000			
Engineering/Survey/Testing:		20%	\$	183,000			
Mobilization		5%	\$	45,750			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	91,500			
	Impact Fee Project C	ost TOTAL:	\$	1,235,000			

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. S-19
Name: N-S Minor Arterial This project consists of the

Name: N-S Minor Arterial This project consists of the Westpoint Blvd. to Old Weatherford Rd. Construction of a new four-lane

Impact Fee Class: M4U undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 4,870 Service Area(s): S

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	15,692	су	\$	10.50	\$ 164,768
206	6" Lime Stabilization (with Lime @ 32#/sy)	30,843	sy	\$	3.00	\$ 92,530
306	9" Concrete Pavement	29,761	sy	\$	36.00	\$ 1,071,400
406	6" Curb & Gutter	9,740	lf	\$	6.50	\$ 63,310
506	4" Topsoil	8,117	sy	\$	5.00	\$ 40,583
606	4' Concrete Sidewalk	38,960	sf	\$	5.00	\$ 194,800
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 1,627,392

Major Construction Component Allow	/ances:	_	
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 48,822
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers		2%	\$ 34,935
√ Roadway Drainage	Standard Internal System	30%	\$ 488,218
$\sqrt{}$ Illumination		11%	\$ 183,256
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 97,644
√ Sewer	Minor Adjustments	4%	\$ 65,096
√ Establish Turf / Erosion Control		3%	\$ 48,822
√ Basic Landscaping		3%	\$ 48,822
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:		\$0	\$ -
	Allow	ance Subtotal:	\$ 1,165,613
	Paving and Allow		\$ 2,793,005
	Construction Contingency	15%	\$ 418,951
	Construction (	Cost TOTAL:	\$ 3,212,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,212,000
Engineering/Survey/Testing:		20%	\$ 642,400
Mobilization		5%	\$ 160,600
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 642,400
	Impact Fee Pro	ject Cost TOTAL:	\$ 4,657,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. 10/2/2012 updated:

**Item Cost** 

**Project Information: S-20** Description: Project No. Name: Old Weatherford Rd. (1) This project consists of the

Limits: 645' E of County Rd 1029 to Chapel Creek Blvd.

Impact Fee Class: M4U **Ultimate Class:** Minor Arterial

Length (If): 6,180 Service Area(s): S

No. Item Description

reconstruction of an existing two-lane undivided asphalt facility into a four-

lane undivided minor arterial.

Quantity Unit Unit Price

106 Unclassified Street Excavation 206 6" Lime Stabilization (with Lime @ 32#/sy) 306 9" Concrete Pavement	19,913 39,140	cy	\$	10.50	\$	209,090
	,	CV				203,030
306 9" Concrete Pavement		sy	\$	3.00	\$	117,420
	37,767	sy	\$	36.00	\$	1,359,600
406 6" Curb & Gutter	12,360	lf	\$	6.50	\$	80,340
506 4" Topsoil	10,300	sy	\$	5.00	\$	51,500
606 4' Concrete Sidewalk	49,440	sf	\$	5.00	\$	247,200
701 Turn Lanes and Median Openings	0					
P	aving Const	ruction C	cost	Subtotal:	\$	2,065,150
Major Construction Component Allowances:						
Item Description Notes			All	owance		Item Cost
√ Prep ROW	<u></u>			3%	-	61,955
√ Traffic Control Construction Phase	Traffic Control			3%		61,955
√ Pavement Markings/Markers				2%		44,332
√ Roadway Drainage Standard Internal Sy	rstem			30%		619,545
√ Illumination				11%	\$	232,551
√ Special Drainage Structures Two Minor Stream C	Prossings		\$	500,000	\$	500,000
√ Water Minor Adjustments				6%	*	123,909
√ Sewer Minor Adjustments				4%	\$	82,606
√ Establish Turf / Erosion Control				3%	\$	61,955
√ Basic Landscaping				3%		61,955
√ Intersections (Signal, Roundabout, etc.) Assume Improveme	nt per Half Mile			\$150,000	\$	300,000
Other:					_	A 4== = = :
Allowance Subtotal:					\$	2,150,761
				0.14	Ļ	4.5
	Paving and					4,215,911
Constru	uction Conti	-		15%		632,387
	Construc	ction C	ost	IOTAL:	\$	4,849,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,849,000
Engineering/Survey/Testing:		20%	\$ 969,800
Mobilization		5%	\$ 242,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 484,900
	\$ 6,546,000		

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

445,000

<b>Project Informat</b>	ion:	Description:	Project No.	S-21
Name:	Amber Ridge Dr. (1)	This project consists of	f the widening of	f an existing
Limits:	Chapel Creek Blvd. to Wind Star Way	two-lane undivided con	crete facility into	a four-lane
	M4U (1/2)	undivided minor arteria	<del>-</del>	
Ultimate Class:	Minor Arterial			
Lanath (If):	1 300			

Quantity

Unit

Construction Cost TOTAL: \$

Unit Price

Length (If): 1,390 S Service Area(s):

No. Item Description

104	Unclassified Street Excavation		2,239	су	\$	10.50	\$ 23,514
204	6" Lime Stabilization (with Lime @ 3	32#/sy)	4,402	sy	\$	3.00	\$ 13,205
304	9" Concrete Pavement		4,247	sy	\$	36.00	\$ 152,900
404	6" Curb & Gutter		1,390	lf	\$	6.50	\$ 9,035
504	4" Topsoil		1,158	sy	\$	5.00	\$ 5,792
604	4' Concrete Sidewalk		5,560	sf	\$	5.00	\$ 27,800
701	Turn Lanes and Median Openings		0				
Paving Construction Cost Subtotal:						\$ 232,246	
			•				•
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			Alle	owance	Item Cost
	Prep ROW					3%	\$ 6,967
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 6,967
	Pavement Markings/Markers	Pavement Markings	and Bike Route			3%	\$ 6,967
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 69,674
	Illumination					11%	\$ 26,153
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 13,935
	Sewer	Minor Adjustments				4%	\$ 9,290
	Establish Turf / Erosion Control					3%	\$ 6,967
	Basic Landscaping					3%	\$ 6,967
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	\$ -
Allowance Subtotal:						Subtotal:	\$ 153,888
			Paving an	d Allowa	nce S	Subtotal:	\$ 386,134
		Constru	ection Conti	ngency:		15%	\$ 57,920

Impact Fee Project Cost Sun	nmary		
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:	Existing Alignment	10%	\$ 44,500
	\$ 601,000		

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. S-22

Name: Amber Ridge Dr. (2) This project consists of the Limits: Wind Star Way to Future Academy Blvd construction of a new four-lane

Impact Fee Class: M4U

Ultimate Class: Minor Arterial

Length (If): 1,255 Service Area(s): S

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	4,044	су	\$	10.50	\$ 42,461
206	6" Lime Stabilization (with Lime @ 32#/sy)	7,948	sy	\$	3.00	\$ 23,845
306	9" Concrete Pavement	7,669	sy	\$	36.00	\$ 276,100
406	6" Curb & Gutter	2,510	lf	\$	6.50	\$ 16,315
506	4" Topsoil	2,092	sy	\$	5.00	\$ 10,458
606	4' Concrete Sidewalk	10,040	sf	\$	5.00	\$ 50,200
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 419,379

undivided minor arterial.

Mai	or Construction Component Allow	vances:	_	
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 12,581
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers	Pavement Markings and Bike Route	3%	\$ 12,581
	Roadway Drainage	Standard Internal System	30%	\$ 125,814
	Illumination		11%	\$ 47,225
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 25,163
	Sewer	Minor Adjustments	4%	\$ 16,775
	Establish Turf / Erosion Control		3%	12,581
	Basic Landscaping		3%	\$ 12,581
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:		\$0	\$ -
		Allowa	ance Subtotal:	\$ 265,302
	·	Paving and Allowa		684,681
		Construction Contingency:		102,702
		Construction C	ost TOTAL:	\$ 788,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 788,000
Engineering/Survey/Testing:		20%	\$ 157,600
Mobilization		5%	\$ 39,400
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 157,600
	\$ 1,143,000		

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: Project No. **S-23** Name: Chapin Rd. (1) This project consists of the Limits: W. City Limits to 1,800' E. of W. City Limits reconstruction of an existing two-lane Impact Fee Class: M4U-B undivided asphalt facility into a four-**Ultimate Class:** Minor Arterial lane undivided minor arterial. Length (If): 1,800 Service Area(s): S

No.	Item Description		Quantity	Unit	Uı	nit Price		Item Cost
107	Unclassified Street Excavation		6,000	су	\$	10.50	\$	63,000
207	6" Lime Stabilization (with Lime @	32#/sy)	11,800	sy	\$	3.00	\$	35,400
307	9" Concrete Pavement		11,400	sy	\$	36.00	\$	410,400
107	6" Curb & Gutter		3,600	lf	\$	6.50	\$	23,400
507	4" Topsoil		2,600	sy	\$	5.00	\$	13,000
607	4' Concrete Sidewalk		14,400	sf	\$	5.00	\$	72,000
701	Turn Lanes and Median Openings		0					
		Pa	aving Constr	uction (	Cost	Subtotal:	\$	617,200
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			ΑI	lowance		Item Cost
1	Prep ROW					3%		18,516
√,	Traffic Control	Construction Phase	Traffic Control			3%	-	18,516
√,	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	24,688
√,	Roadway Drainage	Standard Internal Sy	stem			30%	\$	185,160
1	Illumination					11%	\$	69,501
1	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
V	Water	Minor Adjustments				6%	\$	37,032
٠.	•	Minor Adjustments				4%	\$	24,688
V	Sewer	,						18,516
\ \ \	Sewer Establish Turf / Erosion Control	,				3%	\$	10,510
`,		,				3%	\$ \$	•
V	Establish Turf / Erosion Control	None Anticipated				3% \$0	*	•
Ž	Establish Turf / Erosion Control Basic Landscaping	None Anticipated				3% \$0 \$0	\$ \$ \$ \$	18,516 - -
Ž	Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.)	None Anticipated		Allowa	nce	3% \$0	\$	18,516 - - - - 665,133
Ž	Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.)	None Anticipated		Allowa	nce	3% \$0 \$0	·	18,516 - -
į	Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.)		Paving and	d Allowa	nce	3% \$0 \$0 Subtotal:	\$ \$ \$ <b>\$</b>	18,516 - -

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,475,000
Engineering/Survey/Testing:		20%	\$ 295,000
Mobilization		5%	\$ 73,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 147,500
	\$ 1,991,000		

**Construction Cost TOTAL:** 

**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.

1,475,000

Service Area(s):

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

S

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **S-24** Name: Chapin Rd. (2) This project consists of the Limits: 1,800' E. of W. City Limits to 470' W of Wakecrest Dr. construction of a new four-lane Impact Fee Class: M4U-B undivided minor arterial. **Ultimate Class:** Minor Arterial Length (If): 1,610

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	5,367	су	\$	10.50	\$ 56,350
207	6" Lime Stabilization (with Lime @ 32#/sy)	10,554	sy	\$	3.00	\$ 31,663
307	9" Concrete Pavement	10,197	sy	\$	36.00	\$ 367,080
407	6" Curb & Gutter	3,220	lf	\$	6.50	\$ 20,930
507	4" Topsoil	2,326	sy	\$	5.00	\$ 11,628
607	4' Concrete Sidewalk	12,880	sf	\$	5.00	\$ 64,400
701	Turn Lanes and Median Openings	0				
	F	aving Consti	ruction (	Cost	Subtotal:	\$ 552,051

Paving Construction	Cost Subtotal:	\$	552,051
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Major Construction Component Allow	vances:	_	_
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 16,562
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 22,082
√ Roadway Drainage	Standard Internal System	30%	\$ 165,615
$\sqrt{}$ Illumination		11%	\$ 62,165
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$ 250,000
√ Water	Minor Adjustments	6%	\$ 33,123
√ Sewer	Minor Adjustments	4%	\$ 22,082
√ Establish Turf / Erosion Control		3%	\$ 16,562
√ Basic Landscaping		3%	\$ 16,562
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	ance Subtotal:	\$ 604,752
	Paving and Allowa		1,156,803
	Construction Contingency:		173,520
	Construction C	ost TOTAL:	\$ 1,331,000

Impact Fee Project Cost Summary					
Item Description	Notes:	Allowance		Item Cost	
Construction:		-	\$	1,331,000	
Engineering/Survey/Testing:		20%	\$	266,200	
Mobilization		5%	\$	66,550	
Previous City contribution			\$	-	
Other					
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	266,200	
Impact Fee Project Cost TOTAL:				1,930,000	

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50

10/2/2012 updated:

**Item Cost** 

125,767

2,505,000

<b>Project Informa</b>	tion:	Description:	Project No.	S-25
Name:	Academy Blvd. (3)	This project consist	s of the construc	tion of a new
l imits:	Future Amber Ridge to IH-30 WBFR	four-lane divided m	aior artorial	

Quantity

11,978

Unit

су

Construction Cost TOTAL: \$

Impact Fee Class: MA4D **Ultimate Class:** Major Arterial Length (If): 2,695 Service Area(s): S

108 Unclassified Street Excavation

No. Item Description

100	o Onciassineu Street Excavation			Cy	Ψ	10.50	Ψ	123,707
208	6" Lime Stabilization (with Lime @ 32#/sy)		17,967	sy	\$	3.00	\$	53,900
308	11" Concrete Pavement 16,769 sy		\$	44.00	\$	737,831		
408	6" Curb & Gutter		10,780	lf	\$	6.50	\$	70,070
508	4" Topsoil		13,475	sy	\$	5.00	\$	67,375
608	4' Concrete Sidewalk		21,560	sf	\$	5.00	\$	107,800
701	Turn Lanes and Median Openings		1,948	sy	\$	44.00	\$	85,723
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	1,248,466
Majo	or Construction Component Allows	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		37,454
	Traffic Control	None Anticipated				0%		-
	Pavement Markings/Markers					2%		26,801
	Roadway Drainage	Standard Internal System				30%		374,540
$\checkmark$	Illumination					11%	\$	140,586
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\sqrt{}$	Water	Minor Adjustments				6%		74,908
$\sqrt{}$	Sewer	Minor Adjustments				4%		49,939
	Establish Turf / Erosion Control				3%		37,454	
	Basic Landscaping				3%		37,454	
	Intersections (Signal, Roundabout, etc.)	etc.) Assume Improvement per Half Mile				\$150,000	\$	150,000
	Other: \$0				\$	-		
Allowance Subtotal:					\$	929,136		
Paving and Allowance Subtotal:							2,177,602	
Construction Contingency: 15%					\$	326,640		

Impact Fee Project Cost Summary					
Item Description	Notes:	Allowance		Item Cost	
Construction:		-	\$	2,505,000	
Engineering/Survey/Testing:		20%	\$	501,000	
Mobilization		5%	\$	125,250	
Previous City contribution			\$	-	
Other					
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	501,000	
Impact Fee Project Cost TOTAL:			\$	3,632,000	

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.

# City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information: Description: Project No.				S-26
Name:	Chapel Creek Blvd	This completed project consisted of the		
Limits:	Chapin Rd. to IH 30	construction of a four-lane divided major arterial		
Impact Fee Class:	MA4D	bridge over IH-30.		
<b>Ultimate Class:</b>	Major Arterial	S .		
Length (If):	905			
Service Area(s):	S			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 967,698
Impact Fee Project Cost TOTAL:			\$ 967,698

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area T

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
T-1	MA4D	Chapin Rd. (3)	Camp Bowie West Blvd. to Longvue Ave.	\$ 4,682,000
T-2	M4U-B	Alemeda St. (4)	IH-30 EB to IH-30 EBFR	\$ 676,000
T-3	M4U-B	Alemeda St. (5)	Camp Bowie West Blvd. to Chapin Rd.	\$ 2,464,000
T-4	M4U-B	Chapin Rd. (4)	Longvue Ave. to Chapin Curve	\$ 2,998,000
T-5	M4U-B	Chapin Rd. (5)	Chapin Curve to Alemeda St.	\$ 912,000
T-6	M4U-B	Chapin Rd. (6)	Alemeda St. to IH-820 NBFR	\$ 1,809,000

TOTAL \$ 13,541,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. T-1

Name: Chapin Rd. (3) This project consists of the

Limits: Camp Bowie West Blvd. to Longvue Ave. construction of a new four-lane divided

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial
Length (If): 3,200
Service Area(s): T

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
108	Unclassified Street Excavation	14,222	су	\$	10.50	\$ 149,333
208	6" Lime Stabilization (with Lime @ 32#/sy)	21,333	sy	\$	3.00	\$ 64,000
308	11" Concrete Pavement	19,911	sy	\$	44.00	\$ 876,089
408	6" Curb & Gutter	12,800	lf	\$	6.50	\$ 83,200
508	4" Topsoil	16,000	sy	\$	5.00	\$ 80,000
608	4' Concrete Sidewalk	25,600	sf	\$	5.00	\$ 128,000
701	Turn Lanes and Median Openings	2,313	sy	\$	44.00	\$ 101,787
	P	aving Constr	uction (	Cost	Subtotal:	\$ 1,482,409
		_				
Majo	or Construction Component Allowances:					
	Name Description					It O t

Maj	or Construction Component Allow						
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	44,472		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers		2%	\$	31,823		
$\checkmark$	Roadway Drainage	Standard Internal System	30%	\$	444,723		
$\checkmark$	Illumination		11%	\$	166,930		
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000		
$\checkmark$	Water	Minor Adjustments	6%	\$	88,945		
	Sewer	Minor Adjustments	4%	\$	59,296		
$\checkmark$	Establish Turf / Erosion Control		3%	\$	44,472		
	Basic Landscaping		3%	\$	44,472		
$\checkmark$	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:		\$0	\$	-		
		Allow	ance Subtotal:	\$	1,325,133		
	Paving and Allowance Subtotal:						
	Construction Contingency: 15%						
		Construction C	ost TOTAL:	\$	3,229,000		

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,229,000
Engineering/Survey/Testing:		20%	\$ 645,800
Mobilization		5%	\$ 161,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 645,800
	Impact Fee Projec	t Cost TOTAL:	\$ 4,682,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	T-2						
Name:	Alemeda St. (4)	This project cons	This project consists of the reconstruction of the							
Limits:	IH-30 EB to IH-30 EBFR	existing two-lane	Alameda St. Bridge	over IH-30						
Impact Fee Class:	M4U-B	into a four-lane undivided minor arterial. This								
Ultimate Class:	Minor Arterial	includes widening	g a 90' bridge section	n over IH-30.						
Length (If):	380		<b>3</b>							
Service Area(s):	T									

No.	No.   Item Description   Quantity   Unit				Un	it Price		Item Cost
107	Unclassified Street Excavation		1,267	су	\$	10.50	\$	13,300
207	6" Lime Stabilization (with Lime @ 3	6" Lime Stabilization (with Lime @ 32#/sy) 2,491 sy			\$	3.00	\$	7,473
307	9" Concrete Pavement		2,407	sy	\$	36.00	\$	86,640
407	6" Curb & Gutter		760	lf	\$	6.50	\$	4,940
507	4" Topsoil		549	sy	\$	5.00	\$	2,744
607	4' Concrete Sidewalk		3,040	sf	\$	5.00	\$	15,200
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	130,298
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			Alle	owance		Item Cost
$\sqrt{}$	Prep ROW					3%		3,909
	Traffic Control	Construction Phase	Traffic Control			3%		3,909
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	5,212
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%		39,089
	Illumination					11%	\$	14,672
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		7,818
$\sqrt{}$	Sewer	Minor Adjustments				4%		5,212
$\sqrt{}$	Establish Turf / Erosion Control					3%		3,909
	Basic Landscaping					3%	\$	3,909
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:	Ü			\$250,000		250,000	
Allowance Subtotal:							\$	337,639
	Paving and Allowance Subtotal:							467,937
	Construction Contingency: 15%						*	32,691
			Constru	ction C	ost 7	ΓΟΤΑL:	\$	501,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 501,000
Engineering/Survey/Testing:		20%	\$ 100,200
Mobilization		5%	\$ 25,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 50,100
	Impact Fee Project	Cost TOTAL:	\$ 676,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Informat	tion:	Description:	Project No.	T-3
Name:	Alemeda St. (5)	This project consists of	of the reconstruc	tion of an
Limits:	Camp Bowie West Blvd. to Chapin Ro	existing two-lane undiv	vided asphalt fac	ility into a
Impact Fee Class:	M4U-B	four-lane undivided mi	nor arterial.	-

Ultimate Class: Minor Arterial
Length (If): 2,330
Service Area(s): T

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Ur	it Price		Item Cost
107	Unclassified Street Excavation	7,767	су	\$	10.50	\$	81,550
207	6" Lime Stabilization (with Lime @ 32#/sy)	15,274	sy	\$	3.00	\$	45,823
307	9" Concrete Pavement	14,757	sy	\$	36.00	\$	531,240
407	6" Curb & Gutter	4,660	lf	\$	6.50	\$	30,290
507	4" Topsoil	3,366	sy	\$	5.00	\$	16,828
607	4' Concrete Sidewalk	18,640	sf	\$	5.00	\$	93,200
701	Turn Lanes and Median Openings	0					
	Paving Construction Cost Subtotal:						

Major Construction Component Allow	vances:		
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 23,968
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 23,968
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 31,957
√ Roadway Drainage	Standard Internal System	30%	\$ 239,679
$\sqrt{}$ Illumination		11%	\$ 89,965
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$ 250,000
√ Water	Minor Adjustments	6%	\$ 47,936
√ Sewer	Minor Adjustments	4%	\$ 31,957
√ Establish Turf / Erosion Control		3%	\$ 23,968
√ Basic Landscaping		3%	\$ 23,968
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	ance Subtotal:	\$ 787,367
	\$ 1,586,298		
	Construction Contingency:	15%	\$ 237,945
	Construction C	ost TOTAL:	\$ 1,825,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,825,000
Engineering/Survey/Testing:		20%	\$ 365,000
Mobilization		5%	\$ 91,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 182,500
	Impact Fee Project C	ost TOTAL:	\$ 2,464,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Chapin Rd. (4)
Limits:
Longvue Ave. to Chapin Curve
Impact Fee Class:
Ultimate Class:
Ultimate Class:
Ultimate Class:
Description:
Project No.
T-4

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Length (If): 2,670
Service Area(s): T

No.	Item Description	,	Quantity	Unit	Uı	nit Price		Item Cost
107	Unclassified Street Excavation		8,900	су	\$	10.50	\$	93,450
207	7 6" Lime Stabilization (with Lime @ 32#/sy) 17,503 sy				\$	3.00	\$	52,510
307	9" Concrete Pavement		16,910	sy	\$	36.00	\$	608,760
407	6" Curb & Gutter		5,340	lf	\$	6.50	\$	34,710
507	4" Topsoil		3,857	sy	\$	5.00	\$	19,283
607	4' Concrete Sidewalk		21,360	sf	\$	5.00	\$	106,800
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	915,513
Maio	or Construction Component Allow	ancos:	_	_		_		
IVIajo	Item Description	Notes			ΙΛΙ	lowance		Item Cost
	Prep ROW	140163			A	3%	\$	27,465
V	Traffic Control	Construction Phase	Troffic Control			3%		27,465
V	Pavement Markings/Markers					3 % 4%	Φ	36,621
V	Roadway Drainage	Pavement Markings Standard Internal Sy				30%	Φ	274,654
Ž	Illumination	Standard Internal Sy	Sterri			11%	\$	103,093
V	Special Drainage Structures	Minor Ctroom Croosi			\$	250,000	\$	250,000
V	Water	Minor Stream Crossi Minor Adjustments	ng		Ψ	230,000	\$	54,931
V	Sewer	1 '				4%	\$	•
V	Establish Turf / Erosion Control	Minor Adjustments				3%	-	36,621
V	Basic Landscaping					3%	Φ	27,465 27,465
$\sqrt{}$		A	-4 I I - I				Φ	150,000
V	Intersections (Signal, Roundabout, etc.)  Other:	Assume Improvement per Half Mile \$150,000				\$	150,000	
Allowance Subtotal:						\$	1,015,781	
	, mon and a dubtatan						*	-,,-
			Paving an			Subtotal:	\$	1,931,294
	Construction Contingency: 15%						\$	289,694

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,221,000
Engineering/Survey/Testing:		20%	\$ 444,200
Mobilization		5%	\$ 111,050
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 222,100
	Impact Fee Project	ct Cost TOTAL:	\$ 2,998,000

Construction Cost TOTAL: \$

**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.

2,221,000

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. T-5

Name: Chapin Rd. (5) This project consists of the construction of a new

Limits: Chapin Curve to Alemeda St. four-lane undivided minor arterial.

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial

Length (If): 970 Service Area(s): T

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation	3,233	су	\$	10.50	\$	33,950
207	6" Lime Stabilization (with Lime @ 32#/sy)	6,359	sy	\$	3.00	\$	19,077
307	9" Concrete Pavement	6,143	sy	\$	36.00	\$	221,160
407	6" Curb & Gutter	1,940	lf	\$	6.50	\$	12,610
507	4" Topsoil	1,401	sy	\$	5.00	\$	7,006
607	4' Concrete Sidewalk	7,760	sf	\$	5.00	\$	38,800
701	Turn Lanes and Median Openings	0					
		D		) 1 ·	0	Φ.	222 222

Paving Construction Cost Subtotal: \$ 332,602

Major Construction Component Allow	vances:	_						
Item Description	Notes	Allowance		Item Cost				
√ Prep ROW		3%	\$	9,978				
Traffic Control	None Anticipated	0%	\$	-				
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	13,304				
√ Roadway Drainage	Standard Internal System	30%	\$	99,781				
√ Illumination		11%	\$	37,453				
Special Drainage Structures	None Anticipated	\$ -	\$	-				
√ Water	Minor Adjustments	6%	\$	19,956				
√ Sewer	Minor Adjustments	4%	\$	13,304				
√ Establish Turf / Erosion Control		3%	\$	9,978				
√ Basic Landscaping		3%	\$	9,978				
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
Other:		\$0	\$	-				
	Allowa	ance Subtotal:	\$	213,733				
	Paving and Allowance Subtotal:							
	Construction Contingency:	15%	\$	81,950				
	Construction C	ost TOTAL:	\$	629,000				

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	629,000				
Engineering/Survey/Testing:		20%	\$	125,800				
Mobilization		5%	\$	31,450				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	125,800				
	Impact Fee Project Cost TOTAL:							

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 T-6

 Name:
 Chapin Rd. (6)
 This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial

Length (If): 1,595 Service Area(s): T

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	it Price	Item Cost
107	Unclassified Street Excavation	5,317	су	\$	10.50	\$ 55,825
207	6" Lime Stabilization (with Lime @ 32#/sy)	10,456	sy	\$	3.00	\$ 31,368
307	9" Concrete Pavement	10,102	sy	\$	36.00	\$ 363,660
407	6" Curb & Gutter	3,190	lf	\$	6.50	\$ 20,735
507	4" Topsoil	2,304	sy	\$	5.00	\$ 11,519
607	4' Concrete Sidewalk	12,760	sf	\$	5.00	\$ 63,800
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 546,908

four-lane undivided minor arterial.

Major Construction Component Allow	vances:							
Item Description	Notes	Allowance		Item Cost				
√ Prep ROW		3%	\$	16,407				
√ Traffic Control	Construction Phase Traffic Control	3%	\$	16,407				
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	21,876				
√ Roadway Drainage	Standard Internal System	30%	\$	164,072				
√ Illumination		11%	\$	61,586				
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000				
√ Water	Minor Adjustments	6%	\$	32,814				
√ Sewer	Minor Adjustments	4%	\$	21,876				
√ Establish Turf / Erosion Control		3%	\$	16,407				
√ Basic Landscaping		3%	\$	16,407				
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
Other:		\$0	\$	-				
	Allowa	nce Subtotal:	\$	617,854				
	Paving and Allowance Subtotal:							
	Construction Contingency:	15%	\$	174,714				
	Construction C	ost TOTAL:	\$	1,340,000				

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	1,340,000					
Engineering/Survey/Testing:		20%	\$	268,000					
Mobilization		5%	\$	67,000					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	134,000					
	Impact Fee Project Cost TOTAL:								

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area U

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
U-1	M4U-B	Old Weatherford Rd. (1)	W. City Limits to 1800' W of Future Walsh Ranch Pkwy.	\$ 1,800,000
U-2	M4U-B	Old Weatherford Rd. (2)	1800' W of Future Walsh Ranch Pkwy. to Future Walsh Ranch Pkwy.	\$ 1,691,000
U-3	P6D-B	Walsh Ranch Pkwy. (1)	North City Limits to Future Old Weatherford Rd.	\$ 5,448,000
U-4	P6D-B	Walsh Ranch Pkwy. (2)	Future Old Weatherford to Future Walsh Ranch Minor #4	\$ 11,976,000
U-5	P6D	Walsh Ranch Pkwy. (3)	Future Walsh Ranch Minor #4 to IH-30 WBFR	\$ 1,882,000
U-6	P6D-B	Walsh Ranch Pkwy. (4)	IH-30 WBFR to Walsh Ranch Major #1	\$ 15,859,000
U-7	P6D	Walsh Ranch Pkwy. (5)	Walsh Ranch Major #1 to SW City Limits	\$ 18,885,000
U-8	M4U-B	Walsh Ranch Minor #4	Future Walsh Ranch Pkwy. to Walsh Ranch Minor #1	\$ 6,206,000
U-9	M4U	Walsh Ranch Minor #1 (1)	W City Limits to Walsh Ranch Major #1	\$ 8,955,000
U-10	M4U	Walsh Ranch Minor #1 (2)	Walsh Ranch Major #1 to City Limits	\$ 8,716,000
U-11	M4U	Walsh Ranch Minor #1 (3)	IH-30 EBFR to Walsh Ranch Minor #4	\$ 2,762,000
U-12	M4U-B	Walsh Ranch Minor #1 (4)	Walsh Ranch Minor #4 to N City Limits	\$ 4,528,000
U-13	MA4D-B	Walsh Ranch Major #1 (1)	W City Limits to Future Walsh Ranch Pkwy.	\$ 5,632,000
U-14	MA4D-B	Walsh Ranch Major #1 (2)	Future Walsh Ranch Pkwy. to Walsh Ranch Minor #1	\$ 12,421,000
U-15	MA4D-B	Walsh Ranch Major #1 (3)	Walsh Ranch Minor #1 to RR tracks	\$ 5,912,000
U-16	M4U	Walsh Ranch Minor #3	W City Limits to IH-30/20 Intersection	\$ 6,118,000
U-17	M4U-B	Walsh Ranch Minor #2 (1)	Old Weatherford Rd. to IH-20 WBFR	\$ 7,064,000
U-18	M4U-B	Walsh Ranch Minor #2 (2)	IH-20 WBFR to S City Limits	\$ 4,997,000
U-19	MA4D-B	Westpoint Blvd. (5)	W. City Limits to E. City Limits	\$ 3,780,000

TOTAL \$ 134,632,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:		Description:	Project No.	U-1
Name:	Old Weatherford Rd. (1)		This project cons	ists of the
Limits:	W. City Limits to 1800' W of Future Wa	lsh Ranch Pkwy.	reconstruction of	an existing
Impact Fee Class:	M4U-B		two-lane asphalt	facility into a
Ultimate Class:	Minor Arterial		four-lane undivide	ed minor
Length (If):	2,020		arterial.	
Service Area(s):	U			

No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation		6,733	су	\$	10.50	\$	70,700
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	13,242	sy	\$	3.00	\$	39,727
307	9" Concrete Pavement		12,793	sy	\$	36.00	\$	460,560
407	6" Curb & Gutter		4,040	lf	\$	6.50	\$	26,260
507	4" Topsoil		2,918	sy	\$	5.00	\$	14,589
607	4' Concrete Sidewalk		16,160	sf	\$	5.00	\$	80,800
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	692,636
Majo	or Construction Component Allow							
	Item Description	Notes			All	owance		Item Cost
√,	Prep ROW					3%		20,779
√,	Traffic Control	Construction Phase	Traffic Control			3%		20,779
√,	Pavement Markings/Markers	Pavement Markings				4%	\$	27,705
√,	Roadway Drainage	Standard Internal Sy	stem			30%		207,791
	Illumination					11%		77,996
l .	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		41,558
$\sqrt{}$	Sewer	Minor Adjustments				4%		27,705
	Establish Turf / Erosion Control					3%	\$	20,779
	Basic Landscaping					3%		20,779
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:	\$0				_	-	
Allowance Subtotal:							\$	465,872
			Paving an					1,158,507
Construction Contingency: 15%							173,776	
Construction Cost TOTAL:						\$	1,333,000	

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	1,333,000					
Engineering/Survey/Testing:		20%	\$	266,600					
Mobilization		5%	\$	66,650					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	133,300					
	Impact Fee Project Cost TOTAL:								

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

Unit Price

10.50 \$

updated: 10/2/2012

**Item Cost** 

63,000

Project Information: Description: Project No. U-2

Name: Old Weatherford Rd. (2)

**Roadway Construction Cost Projection** 

Limits: 1800' W of Future Walsh Ranch Pkwy. to Future Walsh Ranch Pkwy.

Impact Fee Class: M4U-B

This project consists of the construction of a new

Quantity

6,000

Unit

Cy

\$

Ultimate Class: Minor Arterial four-lane undivided minor arterial.

Length (If): 1,800 Service Area(s): U

No. Item Description

107 Unclassified Street Excavation

		0,000	O y	Ψ	10.00	Ψ	00,000
6" Lime Stabilization (with Lime @ 3	2#/sy)	11,800	sy	\$	3.00	\$	35,400
9" Concrete Pavement		11,400	sy	\$	36.00	\$	410,400
6" Curb & Gutter		3,600	lf	\$	6.50	\$	23,400
4" Topsoil		2,600	sy	\$	5.00	\$	13,000
4' Concrete Sidewalk		14,400	sf	\$	5.00	\$	72,000
Turn Lanes and Median Openings		0					
	Pa	ving Const	ruction (	Cost	Subtotal:	\$	617,200
or Construction Component Allowa	inces:						
Item Description	Notes			Alle	owance		Item Cost
Prep ROW					3%	\$	18,516
Traffic Control	None Anticipated				0%	\$	-
Pavement Markings/Markers	Pavement Markings	with Bike Lanes				-	24,688
Roadway Drainage	Standard Internal Sys	stem					185,160
Illumination					11%	\$	69,501
Special Drainage Structures	None Anticipated			\$	-	\$	-
Water	Minor Adjustments						37,032
Sewer	Minor Adjustments						24,688
Establish Turf / Erosion Control							18,516
Basic Landscaping							18,516
Intersections (Signal, Roundabout, etc.)	None Anticipated						-
						_	-
			Allowa	nce s	Subtotal:	\$	396,617
							1,013,817
	Constru						152,073
		Constru	ction C	ost <sup>-</sup>	TOTAL:	\$	1,166,000
	9" Concrete Pavement 6" Curb & Gutter 4" Topsoil 4' Concrete Sidewalk Turn Lanes and Median Openings  or Construction Component Allowa Item Description  Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water Sewer Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.)	6" Curb & Gutter 4" Topsoil 4' Concrete Sidewalk Turn Lanes and Median Openings  Part Construction Component Allowances:  Item Description Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water Sewer Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.) Other:  Part Construction Component Allowances: None Anticipated Minor Adjustments Minor Adjustments Minor Adjust	6" Lime Stabilization (with Lime @ 32#/sy) 11,800 9" Concrete Pavement 11,400 6" Curb & Gutter 3,600 4" Topsoil 2,600 4" Concrete Sidewalk 14,400 Turn Lanes and Median Openings 0  Paving Construction Component Allowances:  Item Description Notes  Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water Sewer Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.) Other:  Paving Construction Component Allowances:  None Anticipated Pavement Markings with Bike Lanes Standard Internal System  None Anticipated Minor Adjustments  Minor Adjustments  None Anticipated None Anticipated Minor Adjustments  Paving an Construction Conti	6" Lime Stabilization (with Lime @ 32#/sy) 11,800 sy 9" Concrete Pavement 11,400 sy 6" Curb & Gutter 3,600 lf 4" Topsoil 2,600 sy 4' Concrete Sidewalk 14,400 sf Turn Lanes and Median Openings 0  Paving Construction Component Allowances:  Item Description Notes  Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water Sewer Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.) Other:  Paving Construction Control Pavement Markings with Bike Lanes Standard Internal System Minor Adjustments  None Anticipated Minor Adjustments  Allowa Construction Contingency:	6" Lime Stabilization (with Lime @ 32#/sy) 11,800 sy \$ 9" Concrete Pavement 11,400 sy \$ 6" Curb & Gutter 3,600 lf \$ 4" Topsoil 2,600 sy \$ 4' Concrete Sidewalk 14,400 sf \$ Turn Lanes and Median Openings 0 Paving Construction Cost sor Construction Component Allowances:  Item Description Notes Allowances:  Item Description Notes Allowances:  Item Description Notes Allowances:  Item Description Notes Allowances:  Standard Internal System Standard Internal System Standard Internal System Sewer Minor Adjustments  Sewer Minor Adjustments  Sewer Minor Adjustments  Sewer Setablish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.) Other:  Paving and Allowance Sconstruction Contingency:  Construction Contingency:	6" Lime Stabilization (with Lime @ 32#/sy)	6" Lime Stabilization (with Lime @ 32#/sy)

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	1,166,000					
Engineering/Survey/Testing:		20%	\$	233,200					
Mobilization		5%	\$	58,300					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	233,200					
	Impact Fee Project Cost TOTAL:								

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. U-3
Name: Walsh Ranch Pkwy. (1) This project consists of the

Limits: North City Limits to Future Old Weatherford Rd. construction of a new six-lane divided

Impact Fee Class: P6D-B principal arterial.

Ultimate Class: Principal Arterial

Length (If): 2,890 Service Area(s): U

Roa	adway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost	
113	Unclassified Street Excavation	17,661	су	\$	10.50	\$	185,442	
213	6" Lime Stabilization (with Lime @ 32#/sy)	26,973	sy	\$	3.00	\$	80,920	
313	11" Concrete Pavement	25,689	sy	\$	44.00	\$	1,130,311	
413	6" Curb & Gutter	11,560	lf	\$	6.50	\$	75,140	
513	4" Topsoil	13,166	sy	\$	5.00	\$	65,828	
613	4' Concrete Sidewalk	23,120	sf	\$	5.00	\$	115,600	
701	Turn Lanes and Median Openings	2,089	sy	\$	44.00	\$	91,926	

Paving Construction Cost Subtotal: \$ 1,745,167

	Major Construction Commonant Allowances								
Мај	or Construction Component Allowate Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	52,355				
	Traffic Control	None Anticipated	0%	\$	-				
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	69,807				
	Roadway Drainage	Standard Internal System	30%	\$	523,550				
	Illumination		11%	\$	196,519				
$\checkmark$	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000				
	Water	Minor Adjustments	6%	\$	104,710				
	Sewer	Minor Adjustments	4%	\$	69,807				
	Establish Turf / Erosion Control		3%	\$	52,355				
$\checkmark$	Basic Landscaping		3%	\$	52,355				
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000				
	Other:		\$0	\$	-				
		Allowa	nce Subtotal:	\$	1,521,457				
		Paving and Allowa	nce Subtotal:	\$	3,266,623				
		Construction Contingency:	15%	\$	489,994				
		Construction C	ost TOTAL:	\$	3,757,000				

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,757,000			
Engineering/Survey/Testing:		20%	\$	751,400			
Mobilization		5%	\$	187,850			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	751,400			
	\$	5,448,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

Unit Price

10/2/2012 updated:

**Item Cost** 

**Project Information:** Description: Project No. **U-4** 

Name: Walsh Ranch Pkwy. (2)

**Roadway Construction Cost Projection** 

Limits: Future Old Weatherford to Future Walsh Ranch Minor #4

Impact Fee Class: P6D-B This project consists of the construction of a new

Quantity

Unit

**Ultimate Class:** Principal Arterial six-lane divided principal arterial.

Length (If): 6,685 Service Area(s): U

No. Item Description

<u> </u>		, , , ,					
Unclassified Street Excavation		40,853	су	\$	10.50	\$	428,954
6" Lime Stabilization (with Lime @ 3	32#/sy)	62,393	sy	\$	3.00	\$	187,180
11" Concrete Pavement		59,422	sy	\$	44.00	\$	2,614,578
6" Curb & Gutter		26,740	lf	\$	6.50	\$	173,810
4" Topsoil		30,454	sy	\$	5.00	\$	152,269
4' Concrete Sidewalk		53,480	sf	\$	5.00	\$	267,400
Turn Lanes and Median Openings		4,833	sy	\$	44.00	\$	212,639
			Cost	Subtotal:	\$	4,036,830	
·	Notes			Al			Item Cost
•							121,105
	None Anticipated						-
<del>-</del>	Pavement Markings	with Bike Lanes					161,473
Roadway Drainage	Standard Internal Sy	stem					1,211,049
						\$	454,577
Special Drainage Structures	Minor Stream Crossi	ng		\$		\$	250,000
Water	Minor Adjustments						242,210
Sewer	Minor Adjustments						161,473
Establish Turf / Erosion Control							121,105
Basic Landscaping							121,105
Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	300,000
Other:					\$0	_	-
Allowance Subtotal:						\$	3,144,097
							7,180,927
	Constru						1,077,139
		Constru	ction C	ost	TOTAL:	\$	8,259,000
	6" Lime Stabilization (with Lime @ 3 11" Concrete Pavement 6" Curb & Gutter 4" Topsoil 4' Concrete Sidewalk Turn Lanes and Median Openings  or Construction Component Allowa Item Description  Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water Sewer Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.)	6" Lime Stabilization (with Lime @ 32#/sy) 11" Concrete Pavement 6" Curb & Gutter 4" Topsoil 4' Concrete Sidewalk Turn Lanes and Median Openings  Part or Construction Component Allowances:  Item Description Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water Sewer Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.) Other:  Previous Allowances: Notes None Anticipated Pavement Markings Standard Internal Sy Minor Adjustments Minor Adjustments Assume Improvement Assume Improvement	6" Lime Stabilization (with Lime @ 32#/sy) 62,393 11" Concrete Pavement 59,422 6" Curb & Gutter 26,740 4" Topsoil 30,454 4' Concrete Sidewalk 53,480 Turn Lanes and Median Openings 4,833  Paving Construction Component Allowances:  Item Description Notes  Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water Sewer Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.) Other:  Paving Construction Component Allowances:  None Anticipated Pavement Markings with Bike Lanes Standard Internal System  Minor Stream Crossing Minor Adjustments Minor Adjustments  Assume Improvement per Half Mile  Paving an Construction Control  Paving an Construction Control  Paving an Construction Control	6" Lime Stabilization (with Lime @ 32#/sy)  11" Concrete Pavement  6" Curb & Gutter  4" Topsoil  4" Concrete Sidewalk Turn Lanes and Median Openings  Paving Construction Corresponsive to the control of	6" Lime Stabilization (with Lime @ 32#/sy)  11" Concrete Pavement 6" Curb & Gutter 4" Topsoil 30,454 sy \$ 4' Concrete Sidewalk Turn Lanes and Median Openings  Paving Construction Cost  Tonstruction Component Allowances:  Item Description Notes  Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water Sewer Establish Turf / Erosion Control Basic Landscaping Intersections (Signal, Roundabout, etc.) Other:  Paving and Allowance  Paving and Allowance  Construction Contingency:	6" Lime Stabilization (with Lime @ 32#/sy) 62,393 sy \$ 3.00 11" Concrete Pavement 59,422 sy \$ 44.00 6" Curb & Gutter 26,740 lf \$ 6.50 4" Topsoil 30,454 sy \$ 5.00 4' Concrete Sidewalk 53,480 sf \$ 5.00 Turn Lanes and Median Openings 4,833 sy \$ 44.00  Paving Construction Cost Subtotal:    Topsoil 4	6" Lime Stabilization (with Lime @ 32#/sy)

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	8,259,000			
Engineering/Survey/Testing:		20%	\$	1,651,800			
Mobilization		5%	\$	412,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,651,800			
	Impact Fee Project Cost TOTAL:						

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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. U-5

Name: Walsh Ranch Pkwy. (3)

**Roadway Construction Cost Projection** 

Limits: Future Walsh Ranch Minor #4 to IH-30 WBFR

Impact Fee Class: P6D This project consists of the construction of a new

Quantity

Unit

Ultimate Class: Principal Arterial six-lane divided principal arterial.

Length (If): 1,150 Service Area(s): U

No. Item Description

112	Unclassified Street Excavation		7,028	су	\$	10.50	\$ 73,792
212	6" Lime Stabilization (with Lime @ 3	32#/sy)	10,733	sy	\$	3.00	\$ 32,200
312	11" Concrete Pavement		10,222	sy	\$	44.00	\$ 449,778
412	6" Curb & Gutter		4,600	lf	\$	6.50	\$ 29,900
512	4" Topsoil		5,239	sy	\$	5.00	\$ 26,194
612	4' Concrete Sidewalk		9,200	sf	\$	5.00	\$ 46,000
701	Turn Lanes and Median Openings		831	sy	\$	44.00	\$ 36,580
	· · · · · · · · · · · · · · · · · · ·	Pa	ving Const	ruction (	Cost S	Subtotal:	\$ 694,443
			_				
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			Alle	owance	Item Cost
V	Prep ROW					3%	\$ 20,833
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers					2%	\$ 14,908
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 208,333
	Illumination					11%	\$ 78,199
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 41,667
	Sewer	Minor Adjustments				4%	\$ 27,778
	Establish Turf / Erosion Control					3%	\$ 20,833
	Basic Landscaping					3%	\$ 20,833
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	\$ -
Allowance Subtotal:					\$ 433,384		
Paving and Allowance Subtotal:					\$ 1,127,828		
	Construction Contingency: 15%						169,174
			Constru	ction C	ost 7	TOTAL:	\$ 1,298,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,298,000			
Engineering/Survey/Testing:		20%	\$	259,600			
Mobilization		5%	\$	64,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	259,600			
	\$	1,882,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:

Walsh Ranch Pkwy. (4)

Limits:

IH-30 WBFR to Walsh Ranch Major #1

Impact Fee Class:
Ultimate Class:

Ultimate Class:

Principal Arterial

Project No.

U-6

This project consists of the construction of a new six-lane divided principal arterial. This includes a bridge across IH-30.

Quantity Unit Unit Price

Length (If): 6,655 Service Area(s): U

No. Item Description

140.	item bescription		Quantity	Oill	0	IL I IICC	item cost
113	Unclassified Street Excavation		40,669	су	\$	10.50	\$ 427,029
213	6" Lime Stabilization (with Lime @ 3:	2#/sy)	62,113	sy	\$	3.00	\$ 186,340
313	11" Concrete Pavement		59,156	sy	\$	44.00	\$ 2,602,844
413	6" Curb & Gutter		26,620	lf	\$	6.50	\$ 173,030
513	4" Topsoil		30,317	sy	\$	5.00	\$ 151,586
613	4' Concrete Sidewalk		53,240	sf	\$	5.00	\$ 266,200
701	Turn Lanes and Median Openings		4,811	sy	\$	44.00	\$ 211,684
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$ 4,018,714
Majo	or Construction Component Allowa	nces:					
	Item Description	Notes			Alle	owance	Item Cost
	Prep ROW					3%	120,561
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 160,749
	Roadway Drainage	Standard Internal Sy	stem			30%	1,205,614
	Illumination					11%	\$ 452,537
	Special Drainage Structures	None Anticipated			\$	-	\$ -
$\sqrt{}$	Water	Minor Adjustments				6%	 241,123
$\sqrt{}$	Sewer	Minor Adjustments				4%	160,749
	Establish Turf / Erosion Control					3%	 120,561
	Basic Landscaping					3%	120,561
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	300,000
√	Other:	IH-30 Bridge				3,000,000	3,000,000
Allowance Subtotal:						\$ 5,882,455	
Paving and Allowance Subtotal:						9,901,169	
		Constru	uction Conti			15%	1,035,175
Construction Cost TOTAL:					\$ 10,937,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	10,937,000			
Engineering/Survey/Testing:		20%	\$	2,187,400			
Mobilization		5%	\$	546,850			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	2,187,400			
	\$	15,859,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. U-7
Name: Walsh Ranch Pkwy. (5) This project consists of the

Limits: Walsh Ranch Major #1 to SW City Limits construction of a new six-lane divided

Impact Fee Class: P6D principal arterial.

Ultimate Class: Principal Arterial

Length (If): 10,560 Service Area(s): U

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
112	Unclassified Street Excavation	64,533	су	\$	10.50	\$ 677,600
212	6" Lime Stabilization (with Lime @ 32#/sy)	98,560	sy	\$	3.00	\$ 295,680
312	11" Concrete Pavement	93,867	sy	\$	44.00	\$ 4,130,133
412	6" Curb & Gutter	42,240	lf	\$	6.50	\$ 274,560
512	4" Topsoil	48,107	sy	\$	5.00	\$ 240,533
612	4' Concrete Sidewalk	84,480	sf	\$	5.00	\$ 422,400
701	Turn Lanes and Median Openings	7,634	sy	\$	44.00	\$ 335,896
Paving Construction Cost Subtotal:						\$ 6,376,803

Maio	Major Construction Component Allowances:							
maj	Item Description	Notes	Allowance		Item Cost			
	Prep ROW		3%	\$	191,304			
	Traffic Control	None Anticipated	0%	\$	-			
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	255,072			
	Roadway Drainage	Standard Internal System	30%	\$	1,913,041			
	Illumination		11%	\$	718,075			
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000			
	Water	Minor Adjustments	6%	\$	382,608			
	Sewer	Minor Adjustments	4%	\$	255,072			
	Establish Turf / Erosion Control		3%	\$	191,304			
	Basic Landscaping		3%	\$	191,304			
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	600,000			
	Other:							
		Allowa	ance Subtotal:	\$	4,947,780			
	Paving and Allowance Subtotal:							
		Construction Contingency:	15%	\$	1,698,687			
		Construction C	ost TOTAL:	\$	13,024,000			

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	13,024,000			
Engineering/Survey/Testing:		20%	\$	2,604,800			
Mobilization		5%	\$	651,200			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	2,604,800			
	\$	18,885,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50 \$

updated: 10/2/2012

**Item Cost** 

212,625

Project Information:

Name:

Limits:

Impact Fee Class:

Ut-8

Walsh Ranch Minor #4

Future Walsh Ranch Pkwy. to Walsh Ranch Minor #1

Impact Fee Class:

Ultimate Class:

Winor Arterial

Description:

Project No.

Ut-8

This project consists of the construction of a new four-lane undivided minor arterial.

Quantity

20.250

Unit

Cy

\$

Length (If): 6,075 Service Area(s): U

107 Unclassified Street Excavation

No. Item Description

107	Officiassified Street Excavation 20,230			Cy	Ψ	10.50	Ψ	212,025
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	39,825	sy	\$	3.00	\$	119,475
307	9" Concrete Pavement		38,475	sy	\$	36.00	\$	1,385,100
407	6" Curb & Gutter 12,150 If			\$	6.50	\$	78,975	
507	4" Topsoil 8,775 sy			\$	5.00	\$	43,875	
607	4' Concrete Sidewalk		48,600	sf	\$	5.00	\$	243,000
701	Turn Lanes and Median Openings		0					
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$	2,083,050
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	62,492
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$	83,322
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%	-	624,915
	Illumination					11%	\$	234,567
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\sqrt{}$	Water	Minor Adjustments				6%		124,983
	Sewer	Minor Adjustments				4%	-	83,322
√,	Establish Turf / Erosion Control					3%	-	62,492
√,	Basic Landscaping					3%		62,492
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile		:	\$150,000	\$	300,000
	Other:				\$0	\$	-	
Allowance Subtotal:						\$	1,638,583	
Paving and Allowance Subtotal:							3,721,633	
		Constru	action Conti			15%	-	558,245
			Construc	ction C	ost 7	ΓΟTAL:	\$	4,280,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	4,280,000			
Engineering/Survey/Testing:		20%	\$	856,000			
Mobilization		5%	\$	214,000			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	856,000			
	\$	6,206,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. U-9

Name: Walsh Ranch Minor #1 (1) This project consists of the Limits: W City Limits to Walsh Ranch Major #1 construction of a new four-lane

Impact Fee Class: M4U

Ultimate Class: Minor Arterial

Length (If): 9,065 Service Area(s): U

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	29,209	су	\$	10.50	\$ 306,699
206	6" Lime Stabilization (with Lime @ 32#/sy)	57,412	sy	\$	3.00	\$ 172,235
306	9" Concrete Pavement	55,397	sy	\$	36.00	\$ 1,994,300
406	6" Curb & Gutter	18,130	lf	\$	6.50	\$ 117,845
506	4" Topsoil	15,108	sy	\$	5.00	\$ 75,542
606	4' Concrete Sidewalk	72,520	sf	\$	5.00	\$ 362,600
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 3,029,221

undivided minor arterial.

Maio	Major Construction Component Allowances:								
	Item Description	Notes	Allowance	П	Item Cost				
	Prep ROW		3%	\$	90,877				
	Traffic Control	None Anticipated	0%	\$	-				
	Pavement Markings/Markers		2%	\$	65,028				
	Roadway Drainage	Standard Internal System	30%	\$	908,766				
	Illumination		11%	\$	341,112				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
	Water	Minor Adjustments	6%	\$	181,753				
	Sewer	Minor Adjustments	4%	\$	121,169				
	Establish Turf / Erosion Control		3%	\$	90,877				
	Basic Landscaping		3%	\$	90,877				
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	450,000				
	Other:		\$0	\$	-				
		Allowa	ance Subtotal:	\$	2,340,458				
	Paving and Allowance Subtotal:								
		Construction Contingency:	15%	\$	805,452				
		Construction C	ost TOTAL:	\$	6,176,000				

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	6,176,000				
Engineering/Survey/Testing:		20%	\$	1,235,200				
Mobilization		5%	\$	308,800				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,235,200				
	\$	8,955,000						

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Limits:

Impact Fee Class:

Walsh Ranch Major #1 to City Limits

M4U

Description:

Project No.

This project consists of the construction of a new four-lane undivided minor arterial. This includes a bridge across IH-20.

Ultimate Class: Minor Arterial

Length (If): 7,015 Service Area(s): U

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	it Price	Item Cost
106	Unclassified Street Excavation	22,604	су	\$	10.50	\$ 237,341
206	6" Lime Stabilization (with Lime @ 32#/sy)	44,428	sy	\$	3.00	\$ 133,285
306	9" Concrete Pavement	42,869	sy	\$	36.00	\$ 1,543,300
406	6" Curb & Gutter	14,030	lf	\$	6.50	\$ 91,195
506	4" Topsoil	11,692	sy	\$	5.00	\$ 58,458
606	4' Concrete Sidewalk	56,120	sf	\$	5.00	\$ 280,600
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 2,344,179

Majo	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	70,325				
	Traffic Control	None Anticipated	0%	\$	-				
	Pavement Markings/Markers		2%	\$	50,322				
	Roadway Drainage	Standard Internal System	30%	\$	703,254				
	Illumination		11%	\$	263,972				
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000				
	Water	Minor Adjustments	6%	\$	140,651				
	Sewer	Minor Adjustments	4%	\$	93,767				
	Establish Turf / Erosion Control		3%	\$	70,325				
	Basic Landscaping		3%	\$	70,325				
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000				
	Other:	IH-20 Bridge	\$1,000,000	\$	1,000,000				
		Allowa	ınce Subtotal:	\$	3,012,942				
	Paving and Allowance Subtotal:								
	Construction Contingency: 15%								
		Construction C	ost TOTAL:	\$	6,011,000				

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	6,011,000			
Engineering/Survey/Testing:		20%	\$	1,202,200			
Mobilization		5%	\$	300,550			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,202,200			
	\$	8,716,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

U

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: **U-11** Project No. Name: Walsh Ranch Minor #1 (3) This project consists of the Limits: IH-30 EBFR to Walsh Ranch Minor #4 construction of a new four-lane Impact Fee Class: M4U undivided minor arterial. This includes a **Ultimate Class:** Minor Arterial bridge across IH-30. Length (If): 1,450 Service Area(s):

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	4,672	су	\$	10.50	\$ 49,058
206	6" Lime Stabilization (with Lime @ 32#/sy)	9,183	sy	\$	3.00	\$ 27,550
306	9" Concrete Pavement	8,861	sy	\$	36.00	\$ 319,000
406	6" Curb & Gutter	2,900	lf	\$	6.50	\$ 18,850
506	4" Topsoil	2,417	sy	\$	5.00	\$ 12,083
606	4' Concrete Sidewalk	11,600	sf	\$	5.00	\$ 58,000
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 484,542

Major Construction Component Allov Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 14,536
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers		2%	\$ 10,402
√ Roadway Drainage	Standard Internal System	30%	\$ 145,363
√ Illumination		11%	\$ 54,563
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 29,073
√ Sewer	Minor Adjustments	4%	\$ 19,382
√ Establish Turf / Erosion Control		3%	\$ 14,536
√ Basic Landscaping		3%	\$ 14,536
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
√ Other:	IH-30 Bridge	\$1,000,000	\$ 1,000,000
	Allow	ance Subtotal:	\$ 1,302,390
	\$ 1,786,932		
	\$ 118,040		
	Construction C	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:	New Roadway Alignment	20%	\$	381,000			
	\$	2,762,000					

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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. U-12

Name: Walsh Ranch Minor #1 (4)
Limits: Walsh Ranch Minor #4 to N City Limits
Impact Fee Class: M4U-B

Walsh Ranch Minor #4 to N City Limits
construction of a new four-lane undivided minor arterial.

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial

Length (If): 4,555 Service Area(s): U

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	15,183	су	\$	10.50	\$ 159,425
207	6" Lime Stabilization (with Lime @ 32#/sy)	29,861	sy	\$	3.00	\$ 89,582
307	9" Concrete Pavement	28,848	sy	\$	36.00	\$ 1,038,540
407	6" Curb & Gutter	9,110	lf	\$	6.50	\$ 59,215
507	4" Topsoil	6,579	sy	\$	5.00	\$ 32,897
607	4' Concrete Sidewalk	36,440	sf	\$	5.00	\$ 182,200
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 1,561,859

Major Construction Component Allow Item Description	Notes	Allowance	Item Cost
√ Prep ROW	Hotes	3%	\$ 46,856
Traffic Control	None Anticipated	0%	-
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	62,474
√ Roadway Drainage	Standard Internal System	30%	\$ 468,558
√ Illumination	,	11%	\$ 175,877
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 93,712
√ Sewer	Minor Adjustments	4%	\$ 62,474
√ Establish Turf / Erosion Control		3%	\$ 46,856
√ Basic Landscaping		3%	\$ 46,856
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:		\$0	\$ 
	Allo	wance Subtotal:	\$ 1,153,662
	Paving and Allo	wance Subtotal:	\$ 2,715,521
	\$ 407,328		
	Construction	Cost TOTAL:	\$ 3,123,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,123,000
Engineering/Survey/Testing:		20%	\$ 624,600
Mobilization		5%	\$ 156,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 624,600
	Impact Fee Pro	ject Cost TOTAL:	\$ 4,528,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

Item Cost

3,376,576

3,884,000

506,486

**Project Information:** Description: Project No. U-13 Name:

Walsh Ranch Major #1 (1) This project consists of the Limits: W City Limits to Future Walsh Ranch Pkwy.

construction of a new four-lane divided

Quantity

Unit

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

**Unit Price** 

Impact Fee Class: MA4D-B major arterial. **Ultimate Class:** Major Arterial

Length (If): 3,825 Service Area(s): U

No. Item Description

109	Unclassified Street Excavation		17,425	су	\$	10.50	\$ 182,963
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	26,350	sy	\$	3.00	\$ 79,050
309	11" Concrete Pavement		24,650	sy	\$	44.00	\$ 1,084,600
409	6" Curb & Gutter		15,300	lf	\$	6.50	\$ 99,450
509	4" Topsoil		18,275	sy	\$	5.00	\$ 91,375
609	4' Concrete Sidewalk		30,600	sf	\$	5.00	\$ 153,000
701	Turn Lanes and Median Openings		2,765	sy	\$	44.00	\$ 121,667
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 1,812,104
Majo	or Construction Component Allowa	inces:					
	Item Description	Notes			Al	lowance	Item Cost
	Prep ROW					3%	54,363
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 72,484
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 543,631
	Illumination					11%	\$ 204,056
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$ 250,000
	Water	Minor Adjustments				6%	\$ 108,726
	Sewer	Minor Adjustments				4%	\$ 72,484
	Establish Turf / Erosion Control					3%	\$ 54,363
	Basic Landscaping					3%	\$ 54,363
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$ 150,000
	Other:					\$0	\$ -
	Allowance Subtotal:						\$ 1,564,472

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,884,000
Engineering/Survey/Testing:		20%	\$ 776,800
Mobilization		5%	\$ 194,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 776,800
	Impact Fee Proj	ect Cost TOTAL:	\$ 5,632,000

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.

\$ 15%

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Item Cost

7,447,885

1,117,183

8,566,000

Project Information:

Name:

Limits:
Impact Fee Class:

Description:

Description:

Description:

Project No.

U-14

This project consists of the construction of a new four-lane divided major arterial.

Quantity Unit Unit Price

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

Ultimate Class: Major Arterial Rength (If): 8,350
Service Area(s): U

No. Item Description

140.	item bescription		Qualitity	Oilit	ֹ			item oost
109	Unclassified Street Excavation		38,039	су	\$	10.50	\$	399,408
209	6" Lime Stabilization (with Lime @ 32	2#/sy)	57,522	sy	\$	3.00	\$	172,567
309	11" Concrete Pavement		53,811	sy	\$	44.00	\$	2,367,689
409	6" Curb & Gutter		33,400	lf	\$	6.50	\$	217,100
509	4" Topsoil		39,894	sy	\$	5.00	\$	199,472
609	4' Concrete Sidewalk		66,800	sf	\$	5.00	\$	334,000
701	Turn Lanes and Median Openings		6,036	sy	\$	44.00	\$	265,600
	Paving Construction Co			Cost	Subtotal:	\$	3,955,836	
Majo	or Construction Component Allowa	nces:						
	Item Description	Notes			Al	lowance		Item Cost
	Prep ROW					3%	\$	118,675
l .	Traffic Control	None Anticipated				0%	\$	-
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		158,233
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%	\$	1,186,751
√.	Illumination					11%	\$	445,456
	Special Drainage Structures	Two Stream Crossing	gs		\$	500,000	\$	500,000
$\sqrt{}$	Water	Minor Adjustments				6%		237,350
$\sqrt{}$	Sewer	Minor Adjustments				4%		158,233
$\sqrt{}$	Establish Turf / Erosion Control					3%		118,675
$\sqrt{}$	Basic Landscaping					3%		118,675
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	450,000
	Other:					\$0	_	-
	Allowance Subtotal:							3,492,049

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,566,000
Engineering/Survey/Testing:		20%	\$ 1,713,200
Mobilization		5%	\$ 428,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,713,200
	Impact Fee Pro	ject Cost TOTAL:	\$ 12,421,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. U-15

Name: Walsh Ranch Major #1 (3) This project consists of the construction of a new

Limits: Walsh Ranch Minor #1 to RR tracks four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 3,720

Service Area(s):

Roa	dway Construction Cost Projection	on				
No.	Item Description	Quantity	Unit	Un	nit Price	Item Cost
109	Unclassified Street Excavation	16,947	су	\$	10.50	\$ 177,940
209	6" Lime Stabilization (with Lime @ 32#/sy)	25,627	sy	\$	3.00	\$ 76,880
309	11" Concrete Pavement	23,973	sy	\$	44.00	\$ 1,054,827
409	6" Curb & Gutter	14,880	lf	\$	6.50	\$ 96,720
509	4" Topsoil	17,773	sy	\$	5.00	\$ 88,867
609	4' Concrete Sidewalk	29,760	sf	\$	5.00	\$ 148,800
701	Turn Lanes and Median Openings	2,689	sy	\$	44.00	\$ 118,327
		Paving Const	ruction (	Cost	Subtotal:	\$ 1,762,360
Majo	or Construction Component Allowances:					
	Item Description Note	es ·		All	owance	Item Cost

Maj	or Construction Component Allow					
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	52,871	
	Traffic Control	None Anticipated	0%	\$	-	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	70,494	
	Roadway Drainage	Standard Internal System	30%	\$	528,708	
	Illumination		11%	\$	198,455	
	Special Drainage Structures	Two Minor Stream Crossings	\$ 500,000	\$	500,000	
	Water	Minor Adjustments	6%	\$	105,742	
	Sewer	Minor Adjustments	4%	\$	70,494	
	Establish Turf / Erosion Control		3%	\$	52,871	
	Basic Landscaping		3%	\$	52,871	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000	
	Other:		\$0	\$	-	
		Allowa	nce Subtotal:	\$	1,782,506	
	Paving and Allowance Subtotal:					
	Construction Contingency: 15%					
		Construction C	ost TOTAL:	\$	4,077,000	

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	4,077,000		
Engineering/Survey/Testing:		20%	\$	815,400		
Mobilization		5%	\$	203,850		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	815,400		
	Impact Fee Proje	ect Cost TOTAL:	\$	5,912,000		

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. U-16

Name: Walsh Ranch Minor #3 This project consists of the construction of a new

Limits: W City Limits to IH-30/20 Intersection four-lane undivided minor arterial.

Impact Fee Class: M4U Minor Arterial Length (If): 5,745 Service Area(s): U

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	18,512	су	\$	10.50	\$ 194,373
206	6" Lime Stabilization (with Lime @ 32#/sy)	36,385	sy	\$	3.00	\$ 109,155
306	9" Concrete Pavement	35,108	sy	\$	36.00	\$ 1,263,900
406	6" Curb & Gutter	11,490	lf	\$	6.50	\$ 74,685
506	4" Topsoil	9,575	sy	\$	5.00	\$ 47,875
606	4' Concrete Sidewalk	45,960	sf	\$	5.00	\$ 229,800
701	Turn Lanes and Median Openings	0				
	Pa	aving Constr	uction (	Cost	Subtotal:	\$ 1,919,788

		i uving constitution i	oot oubtotui.	Ψ	1,010,100
Maj	or Construction Component Allow	ances:			
	Item Description	Notes	Allowance		Item Cost
√	Prep ROW		3%	\$	57,594
	Traffic Control	None Anticipated	0%	\$	-
	Pavement Markings/Markers		2%	\$	41,212
	Roadway Drainage	Standard Internal System	30%	\$	575,936
	Illumination		11%	\$	216,182
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000
	Water	Minor Adjustments	6%	\$	115,187
	Sewer	Minor Adjustments	4%	\$	76,792
	Establish Turf / Erosion Control		3%	\$	57,594
	Basic Landscaping		3%	\$	57,594
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000
	Other:		\$0	\$	-
		Allowa	ance Subtotal:	\$	1,748,090
		Paving and Allowa	nce Subtotal:	\$	3,667,877
		Construction Contingency:	15%	\$	550,182
		Construction C	ost TOTAL:	\$	4,219,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,219,000
Engineering/Survey/Testing:		20%	\$ 843,800
Mobilization		5%	\$ 210,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 843,800
	Impact Fee Project C	Cost TOTAL:	\$ 6,118,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

207 6" Lime Stabilization (with Lime @ 32#/sy)

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

229,075

128,718

1,492,260

Project Information: Description: Project No. U-17

Name: Walsh Ranch Minor #2 (1) This project consists of the construction of a new

Quantity

21,817

42,906

41,452

Unit

су

sy

sy

Unit Price

10.50

3.00 \$

36.00 \$

\$

\$

\$

Limits: Old Weatherford Rd. to IH-20 WBFR four-lane undivided minor arterial.

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial
Length (If): 6,545

107 Unclassified Street Excavation

Service Area(s):

No. Item Description

307 9" Concrete Pavement

407	6" Curb & Gutter		13,090	lí	\$	6.50	\$	85,085
	4" Topsoil		9,454		\$	5.00	\$	47,269
	4' Concrete Sidewalk		52,360	sy sf	\$	5.00	\$	261,800
	Turn Lanes and Median Openings		52,300	51	Ψ	5.00	φ	201,000
701	Turri Laries and Median Openings	D	vina Canat	ruotion (	2004	Cubtotol.	<u></u>	2 244 200
		P	aving Const	ruction	JOST	Subtotal:	Ф	2,244,208
Maio	or Construction Component Allow	ances:		_	-	_		
Iviajo	Item Description	Notes			LΔI	lowance		Item Cost
V	Prep ROW	110100			731	3%	\$	67,326
l '	Traffic Control	None Anticipated				0%	-	07,020
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Riko Lance			4%		89,768
V	Roadway Drainage	Standard Internal Sy		•		30%		673,262
V	Illumination	Standard Internal Sy	Sterri			11%	-	252,714
V	Special Drainage Structures	Minor Stream Crossi	na		\$	250,000	ψ	250,000
V	Water	Minor Adjustments	ng		Ψ	230,000	\$	134,652
V	Sewer	Minor Adjustments				4%		89,768
<i>'i</i>	Establish Turf / Erosion Control	wilnor Adjustments				3%		
<b>N</b>						3%		67,326
N	Basic Landscaping							67,326
٧	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Hait Mile			\$150,000	φ	300,000
	Other:			Allania		\$0	\$	4 000 444
				Allowa	ince	Subtotal:	Þ	1,992,144
			Daving on	d Allows	naa	Cubtotoli	\$	4 226 252
	Paving and Allowance Subtotal: Construction Contingency: 15%						4,236,352	
		Constru				15%	-	635,453
			Constru	ction C	ost	IUIAL:	\$	4,872,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	4,872,000			
Engineering/Survey/Testing:		20%	\$	974,400			
Mobilization		5%	\$	243,600			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	974,400			
	\$	7,064,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Walsh Ranch Minor #2 (2)

Limits:

IH-20 WBFR to S City Limits

Impact Fee Class:

M4U-B

Description:

Project No.

U-18

This project consists of the construction of a new four-lane undivided minor arterial. This includes a bridge across IH-20.

Ultimate Class: Minor Arterial
Length (If): 3,510
Service Area(s): U

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	11,700	су	\$	10.50	\$ 122,850
207	6" Lime Stabilization (with Lime @ 32#/sy)	23,010	sy	\$	3.00	\$ 69,030
307	9" Concrete Pavement	22,230	sy	\$	36.00	\$ 800,280
407	6" Curb & Gutter	7,020	lf	\$	6.50	\$ 45,630
507	4" Topsoil	5,070	sy	\$	5.00	\$ 25,350
607	4' Concrete Sidewalk	28,080	sf	\$	5.00	\$ 140,400
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 1,203,540

Major Construction Component Allow Item Description	Notes	Allowance	Item Cost
√ Prep ROW	110100	3%	\$ 36,106
Traffic Control	None Anticipated	0%	-
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 48,142
√ Roadway Drainage	Standard Internal System	30%	\$ 361,062
√ Illumination	·	11%	\$ 135,527
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 72,212
√ Sewer	Minor Adjustments	4%	\$ 48,142
√ Establish Turf / Erosion Control		3%	\$ 36,106
√ Basic Landscaping		3%	\$ 36,106
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
√ Other:	IH-20 Bridge	\$1,000,000	\$ 1,000,000
	Allow	ance Subtotal:	\$ 1,923,404
	\$ 3,126,944		
	\$ 319,042		
	Construction C	ost TOTAL:	\$ 3,446,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,446,000			
Engineering/Survey/Testing:		20%	\$	689,200			
Mobilization		5%	\$	172,300			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	689,200			
	\$	4,997,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

51,544

38,658 38,658

150,000

3% \$150,000

\$

Project Information: Description: Project No. U-19

Name: Westpoint Blvd. (5) This project consists of the construction of a new

Limits: W. City Limits to E. City Limits four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 2,720

Service Area(s):

Sewer

Other:

Establish Turf / Erosion Control

Intersections (Signal, Roundabout, etc.)

Basic Landscaping

Ro	adway Construction Cost Pr	o journali						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
109	9 Unclassified Street Excavation		12,391	су	\$	10.50	\$	130,107
209	6" Lime Stabilization (with Lime @	32#/sy)	18,738	sy	\$	3.00	\$	56,213
309	11" Concrete Pavement		17,529	sy	\$	44.00	\$	771,271
409	6" Curb & Gutter		10,880	lf	\$	6.50	\$	70,720
509	4" Topsoil		12,996	sy	\$	5.00	\$	64,978
609	4' Concrete Sidewalk		21,760	sf	\$	5.00	\$	108,800
701	Turn Lanes and Median Openings		1,966	sy	\$	44.00	\$	86,519
	Paving Construction (				Coct 6	Subtotale	¢	1,288,608
		Г	aving Consti	uction (	JUSI 3	oublotai.	Ф	1,200,000
		Γ.	avilig Collsti	uction	JUSE	Subtotal.	Ф	1,200,000
Majo	or Construction Component Allov		avilig Collsti	uction	JUSI 3	oublotai.	. P	1,200,000
Majo	or Construction Component Allow Item Description		aving Consti	uction		owance	<b>•</b>	Item Cost
Majo		/ances:	aving Consti	uction				, ,
	Item Description	/ances:	aving Consti	uction		owance	\$	Item Cost
	Item Description Prep ROW	vances:				owance 3%	\$	Item Cost
<b>V</b>	Prep ROW Traffic Control	Vances: Notes  None Anticipated	with Bike Lanes			owance 3% 0%	\$ \$	Item Cost 38,658
√ √	Prep ROW Traffic Control Pavement Markings/Markers	Notes  None Anticipated Pavement Markings	with Bike Lanes			3% 0% 4%	\$ \$ \$	Item Cost 38,658 - 51,544
\ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage	Notes  None Anticipated Pavement Markings	with Bike Lanes			3% 0% 4% 30%	\$ \$ \$	Item Cost  38,658  - 51,544 386,582
\ \ \ \	Item Description  Prep ROW  Traffic Control  Pavement Markings/Markers  Roadway Drainage  Illumination	Notes  None Anticipated Pavement Markings Standard Internal Sy	with Bike Lanes		Allo	3% 0% 4% 30%	\$ \$ \$ \$ \$	Item Cost  38,658  - 51,544 386,582

Allowance Subtotal:	\$ 978,069
Paving and Allowance Subtotal:	\$ 2,266,676
Construction Contingency: 15%	\$ 340,001
Construction Cost TOTAL:	\$ 2,607,000

Assume Improvement per Half Mile

Minor Adjustments

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,607,000			
Engineering/Survey/Testing:		20%	\$	521,400			
Mobilization		5%	\$	130,350			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	521,400			
	\$	3,780,000					

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area W

<u>#</u>	Class	Project	<u>Limits</u>		Cost
W-1	M4U-B	Dutch Branch Rd.	Oakmont Trail to 45' E of RR	\$	1,182,000
W-2	M4U	Harris Pwky.	Dutch Branch Rd. to Dirks Rd.	\$	1,256,097
W-3	P6D (1/3)	Granbury Rd. (1)	Dan Danciger Rd. to Hulen St.	\$	1,191,000
W-4	M4U	Lakeside Dr.	Clear Fork Trinity River to Bryant Irvin Rd.	\$	6,634,000
W-5, Y-1	P6D	Dirks Rd. (1)	Bryant Irvin Rd. to Harris Pkwy.	\$	1,797,748
W-6, Y-2	P6D	Dirks Rd. (2)	Harris Pkwy. to Granbury Rd.	\$	2,479,747
				TOTAL \$	14,540,592

\*Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between

**NOTE:** 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.

service areas.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. W-1

Name: Dutch Branch Rd. This project consists of the construction of a new

Limits: Oakmont Trail to 45' E of RR four-lane undivided minor arterial.

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial
Length (If): 1,050
Service Area(s): W

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	3,500	су	\$	10.50	\$ 36,750
207	6" Lime Stabilization (with Lime @ 32#/sy)	6,883	sy	\$	3.00	\$ 20,650
307	9" Concrete Pavement	6,650	sy	\$	36.00	\$ 239,400
407	6" Curb & Gutter	2,100	lf	\$	6.50	\$ 13,650
507	4" Topsoil	1,517	sy	\$	5.00	\$ 7,583
607	4' Concrete Sidewalk	8,400	sf	\$	5.00	\$ 42,000
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 360,033

Major Construction Component Allow	Jances:					
Item Description	Notes	Allowance		Item Cost		
√ Prep ROW		3%	\$	10,801		
Traffic Control	None Anticipated	0%	\$	-		
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	14,401		
√ Roadway Drainage	Standard Internal System	30%	\$	108,010		
$\sqrt{}$ Illumination		11%	\$	40,542		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
√ Water	Minor Adjustments	6%	\$	21,602		
√ Sewer	Minor Adjustments	4%	\$	14,401		
√ Establish Turf / Erosion Control		3%	\$	10,801		
√ Basic Landscaping		3%	\$	10,801		
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
√ Other:	Railroad Crossing	\$250,000	\$	250,000		
	Allowa	nce Subtotal:	\$	481,360		
	Paving and Allowance Subtotal:					
	Construction Contingency:	15%	\$	88,709		
	Construction C	ost TOTAL:	\$	931,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	931,000			
Engineering/Survey/Testing:		20%	\$	186,200			
Mobilization		5%	\$	46,550			
Previous City contribution			\$	-			
Other	CFA# 1997036		\$	(167,840)			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	186,200			
	Impact Fee Projec	t Cost TOTAL:	\$	1,182,000			

**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.

## City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information:		Description:	Project No.	W-2			
Name:	Harris Pwky.	This completed project consists of the					
Limits:	Dutch Branch Rd. to Dirks Rd.	reconstruction of an existing two-lane asphalt					
Impact Fee Class:	M4U	facility into a four-lane undivided minor arterial. This					
<b>Ultimate Class:</b>	Minor Arterial	project estimates the cost of the road to be \$1,256,097.					
Length (If):	2,565						
Service Area(s):	W	<b>4</b> 1,200,0011					

Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance		Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$	1,256,097
Impact Fee Project Cost TOTAL:				1,256,097

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Establish Turf / Erosion Control

Intersections (Signal, Roundabout, etc.)

Basic Landscaping

Other:

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

21,596

21,596

3%

 Project Information:
 Description:
 Project No.
 W-3

 Name:
 Granbury Rd. (1)
 This project consists of the construction of two additional through lanes within the existing median.

 Limits:
 Dan Danciger Rd. to Hulen St.
 additional through lanes within the existing median.

Impact Fee Class: P6D (1/3)
Ultimate Class: Principal Arterial

Length (If): 3,210 Service Area(s): W

No.	No. Item Description		Quantity	Unit	Un	it Price		Item Cost
114	Unclassified Street Excavation		9,987	су	\$	10.50	\$	104,860
214	6" Lime Stabilization (with Lime @	32#/sy)	9,630	sy	\$	3.00	\$	28,890
314	11" Concrete Pavement		8,917	sy	\$	44.00	\$	392,333
414	6" Curb & Gutter		6,420	lf	\$	6.50	\$	41,730
514	4" Topsoil		9,987	sy	\$	5.00	\$	49,933
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		2,321	sy	\$	44.00	\$	102,105
	Paving Cons			ruction (	Cost S	Subtotal:	\$	719,851
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	21,596
	Traffic Control	Construction Phase	Traffic Control			3%	\$	21,596
	Pavement Markings/Markers					3%	\$	21,596
	Roadway Drainage	None Anticipated				0%	\$	-
	rtodaway Bramago	rione / intropated				0,0	Ψ	
	Illumination	None Anticipated				0%		-
					\$			-
	Illumination	None Anticipated			\$		\$	- - -

Allowance Sui	ototai:	A	107,978
Paving and Allowance Sul	ototal:	\$	827,829
Construction Contingency:	15%	\$	124,174
Construction Cost TO	TAL:	\$	953,000

None Anticipated

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	953,000		
Engineering/Survey/Testing:		20%	\$	190,600		
Mobilization		5%	\$	47,650		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-		
Impact Fee Project Cost TOTAL:				1,191,000		

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** W-4 Description: Project No. Name: Lakeside Dr. This project consists of the Limits: Clear Fork Trinity River to Bryant Irvin Rd. reconstruction of an existing two-lane Impact Fee Class: M4U asphalt facility into a four-lane **Ultimate Class:** Minor Arterial undivided minor arterial. Length (If): 7,310 Service Area(s): W

	Item Description	•	Quantity	Unit	Uni	it Price		Item Cost
106	Unclassified Street Excavation		23,554	су	\$	10.50	\$	247,322
206	6" Lime Stabilization (with Lime @ 3	32#/sy)	46,297	sy	\$	3.00	\$	138,890
306	9" Concrete Pavement		44,672	sy	\$	36.00	\$	1,608,200
406	6" Curb & Gutter		14,620	lf	\$	6.50	\$	95,030
506	4" Topsoil		12,183	sy	\$	5.00	\$	60,917
606	4' Concrete Sidewalk		58,480	sf	\$	5.00	\$	292,400
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	2,442,758
Majo	or Construction Component Allow	ances:	_			_		
	Item Description	Notes			Allo	owance		Item Cost
$\checkmark$	Prep ROW					3%	\$	73,283
$\checkmark$	Traffic Control	Construction Phase	Traffic Control			3%	\$	73,283
	Pavement Markings/Markers					2%	\$	52,438
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	732,828
	Illumination					11%	\$	275,072
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	146,566
	Sewer	Minor Adjustments				4%		97,710
	Establish Turf / Erosion Control					3%		73,283
	Basic Landscaping					3%		73,283
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile			9	\$150,000	\$	300,000
	Other:	\$0			\$	-		
Allowance Subtotal:						Subtotal:	\$	1,897,745
			Doving on	d Allows	noo S	Subtotali	\$	4 240 F02
Paving and Allowance Subtotal:								<b>4,340,503</b> 651,076
Construction Contingency: 15%						Φ	051,076	

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	4,992,000		
Engineering/Survey/Testing:		20%	\$	998,400		
Mobilization		5%	\$	249,600		
Previous City contribution			\$	-		
Other	CFA# 98044		\$	(105,208)		
ROW/Easement Acquisition:	Existing Alignment	10%	\$	499,200		
	\$	6,634,000				

**Construction Cost TOTAL:** 

**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.

4,992,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	W-5, Y-1
Name: Limits: Impact Fee Class: Ultimate Class: Length (If): Service Area(s):	Dirks Rd. (1) Bryant Irvin Rd. to Harris Pkwy. P6D Principal Arterial 2,735 W, Y	This completed proconstruction of a seconstruction of a seconstruction of a seconstruction of the total construction. Seconstruction of the from Tarrant Courcost.	six-lane divided pution contribution of 0,041,761. The City design from Bryan 5,987 (47%) was in the was a \$2,407,44	rincipal arterial. from the City of y contributed nt Irvin Rd. to ncluded in this 44 contribution

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 1,041,761 \$755,987
	Impact Fee Project Cost TOTAL:		

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	ion:	Description:	Project No.	W-6, Y-2				
Name:	Dirks Rd. (2)	This project consists of the reconstruction of an						
Limits:	Harris Pkwy. to Granbury Rd.	existing two-lane asph	alt facility into	a six-lane				
Impact Fee Class:	P6D	divided principal arter	ial. The City c	ontributed				
Ultimate Class:	Principal Arterial	\$1,608,484 for the desi	ign from Bryar	nt Irvin Rd. to				
Length (If):	3,085	Granbury Rd. \$852,49	7 (53%) was in	cluded in this				
Service Area(s):	W, Y	section. The City's anticipated contribution to the construction of this project is \$1,627,250. there is a \$6,899,540 Federal contribution that not included in this cost.						

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$	1,627,250 852,497			
	\$	2,479,747					

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area X

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
X-1	P6D (1/3)	Seminary Dr. (1)	Carter Park Dr. to Campus Dr.	\$ 1,573,000
X-2	P6D (1/3)	Seminary Dr. (2)	Campus Dr. to Old Mansfield Rd.	\$ 1,256,000
X-3	M4U-B	Oak Grove Rd. (1)	Oak Grove Rd. to Oak Grove Rd / Campus	\$ 1,497,000
X-4	MA4D	Altamesa Blvd. (1)	Oak Grove Rd./Campus Dr. to Wichita St.	\$ 9,423,000
X-5	MA4D	Altamesa Blvd. (2)	Lana Circle to Forest Hill Dr.	\$ 4,083,000
X-6	M4U	Joel East Rd.	Oak Grove Rd. to Wichita St.	\$ 5,473,000
Z-1, X-7	MA4D	Everman Pkwy. (1)	Butterwick St. to Cameron Hill	\$ 4,769,000
Z-2, X-8	MA4D (1/2)	Everman Pkwy. (2)	Cameron Hill to 320' E. of Sheridan Rd.	\$ 1,026,000
X-9	MA4D-B (1/2)	Hemphill St. (1)	Sunderland Ln. to 130' S of Kielder Cir.	\$ 1,413,000
X-10	MA4D-B	Hemphill St. (2)	130' S of Kielder Cir. to Sycamore School Rd.	\$ 2,732,000
X-11	MA4D-B (1/2)	Hemphill St. (3)	360' S of Sycamore School Rd. to Rosedale Springs Ln.	\$ 1,509,000
X-12	MA4D-B	Hemphill St. (4)	Rosedale Springs Ln. to Everman Pkwy.	\$ 1,059,000
X-13	MA4D-B (1/2)	Oak Grove Rd. (2)	Altamesa Blvd. to RR tracks	\$ 871,000
X-14	MA4D-B	Oak Grove Rd. (3)	RR tracks to Everman Pkwy.	\$ 11,541,000
X-15	MA4D	Wichita St. (1)	340' N of Altamesa Blvd. to Joel East Rd.	\$ 1,250,000
X-16	MA4D	Wichita St. (2)	Joel East Rd. to 130' N of Buie Dr.	\$ 1,107,000
X-17	MA4D-B	Forest Hill Dr. (1)	Lon Stevenson Rd. to S City Limits	\$ 4,723,000
X-18	M4U	Anglin Dr.	Lon Stevenson Rd. to Enon Rd.	\$ 5,399,000
X-19	M4U	Dick Price Rd.	N City Limits to S City Limits	\$ 2,194,000
X-20	M4U	Enon Rd.	W. City Limits to Anglin Dr.	\$ 2,261,000

TOTAL \$ 65,159,000

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: Project No. **X-1** Name: Seminary Dr. (1) This project consists of the construction of two Limits: Carter Park Dr. to Campus Dr. additional through lanes within the existing median.

Impact Fee Class: P6D (1/3) **Ultimate Class:** Principal Arterial

Length (If): 3,270 Service Area(s): Χ

No.	Item Description	•	Quantity	Unit	Uı	nit Price		Item Cost
114	Unclassified Street Excavation		10,173	су	\$	10.50	\$	106,820
214	6" Lime Stabilization (with Lime @ 3	32#/sy)	9,810	sy	\$	3.00	\$	29,430
314	11" Concrete Pavement		9,083	sy	\$	44.00	\$	399,667
414	6" Curb & Gutter		6,540	lf	\$	6.50	\$	42,510
514	4" Topsoil		10,173	sy	\$	5.00	\$	50,867
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings		2,364	sy	\$	44.00	\$	104,013
		Pa	ving Const	ruction (	Cost	Subtotal:	\$	733,307
Majo	or Construction Component Allowa							
	Item Description	Notes			Al	lowance		Item Cost
	Prep ROW					3%		21,999
	Traffic Control	Construction Phase	Traffic Control			3%		21,999
	Pavement Markings/Markers					3%		21,999
	Roadway Drainage	None Anticipated				0%	\$	-
	Illumination	None Anticipated				0%	\$	-
	Special Drainage Structures	Crosses Sycamore C	Creek		\$	250,000	\$	250,000
	Water	None Anticipated				0%		-
l .	Sewer	None Anticipated				0%		-
$\sqrt{}$	Establish Turf / Erosion Control					3%		21,999
	Basic Landscaping					3%		21,999
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0	_	-
Allowance Subtotal:						\$	359,996	
Paving and Allowance Subtotal:						1,093,303		
Construction Contingency: 15%					\$	163,995		

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	1,258,000		
Engineering/Survey/Testing:		20%	\$	251,600		
Mobilization		5%	\$	62,900		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-		
	\$	1,573,000				

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.

**Construction Cost TOTAL:** 

1,258,000

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Seminary Dr. (2)

Campus Dr. to Old Mansfield Rd.

Description:

Project No.

This project consists of the construction of two additional through lanes within the existing median.

Impact Fee Class: P6D (1/3)
Ultimate Class: Principal Arterial

Length (If): 2,545 Service Area(s): X

No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
114	Unclassified Street Excavation		7,918	су	\$	10.50	\$	83,137
214	6" Lime Stabilization (with Lime @	2 32#/sy)	7,635	sy	\$	3.00	\$	22,905
314	11" Concrete Pavement		7,069	sy	\$	44.00	\$	311,056
414	6" Curb & Gutter		5,090	lf	\$	6.50	\$	33,085
514	4" Topsoil		7,918	sy	\$	5.00	\$	39,589
614	4' Concrete Sidewalk		0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings	;	1,840	sy	\$	44.00	\$	80,952
	Paving Construction Cos				) 1 C		4	E70 700
		Pa	aving Constr	uction (	Jost S	subtotal:	Ф	570,723
		Pa	aving Constr	uction (	Jost 8	Subtotal:	<b>•</b>	570,723
Majo	or Construction Component Allo		aving Consti	uction (	ost	subtotal:	Þ	570,723
Maj	or Construction Component Allo Item Description		aving Consti	uction (		owance	<b>•</b>	Item Cost
Maj		wances:	aving Consti	uction (				·
Maje √ √	Item Description	wances:		uction (		owance	\$	Item Cost
<b>√</b>	Item Description Prep ROW	wances: Notes		uction (		owance 3%	\$	Item Cost 17,122
\ \ \ \	Item Description Prep ROW Traffic Control	wances: Notes		uction (		owance 3% 3%	\$ \$	Item Cost 17,122 17,122
\ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers	wances: Notes  Construction Phase		uction (		3% 3% 3% 3%	\$ \$	Item Cost 17,122 17,122
\ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage	Wances:  Notes  Construction Phase  None Anticipated		uction C		3% 3% 3% 0%	\$ \$	Item Cost 17,122 17,122

Allowance Subtotal.		333,606
Paving and Allowance Subtotal:		906,332
Construction Contingency: 15%	\$	98,450
Construction Cost TOTAL:	\$	1,005,000

None Anticipated

None Anticipated

Crosses Railroad

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	1,005,000		
Engineering/Survey/Testing:		20%	\$	201,000		
Mobilization		5%	\$	50,250		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-		
	\$	1,256,000				

**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.

Sewer

Other:

Establish Turf / Erosion Control

Intersections (Signal, Roundabout, etc.)

Basic Landscaping

0%

3%

3% \$

\$0

\$250,000

17,122

17,122

250,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. X-3
Name: Oak Grove Rd. (1) This project consists of the

Limits: Oak Grove Rd. to Oak Grove Rd / Campus

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial

Length (If): 1,680 Service Area(s): X reconstruction of an existing two-lane asphalt facility into a four-lane undivided minor arterial.

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation	5,600	су	\$	10.50	\$	58,800
207	6" Lime Stabilization (with Lime @ 32#/sy)	11,013	sy	\$	3.00	\$	33,040
307	9" Concrete Pavement	10,640	sy	\$	36.00	\$	383,040
407	6" Curb & Gutter	3,360	lf	\$	6.50	\$	21,840
507	4" Topsoil	2,427	sy	\$	5.00	\$	12,133
607	4' Concrete Sidewalk	13,440	sf	\$	5.00	\$	67,200
701	Turn Lanes and Median Openings	0					
	Paving Construction Cost Subtotal: \$						576,053

Maj	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	17,282				
	Traffic Control	Construction Phase Traffic Control	3%	\$	17,282				
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	23,042				
	Roadway Drainage	Standard Internal System	30%	\$	172,816				
	Illumination		11%	\$	64,868				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
	Water	Minor Adjustments	6%	\$	34,563				
	Sewer	Minor Adjustments	4%	\$	23,042				
	Establish Turf / Erosion Control		3%	\$	17,282				
	Basic Landscaping		3%	\$	17,282				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:		\$0	\$	-				
		Allowa	ince Subtotal:	\$	387,458				
	Paving and Allowance Subtotal:								
	Construction Contingency: 15%								
		Construction C	ost TOTAL:	\$	1,109,000				

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,109,000			
Engineering/Survey/Testing:		20%	\$	221,800			
Mobilization		5%	\$	55,450			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	110,900			
	Impact Fee Project Cost TOTAL:						

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. X-4

Name: Altamesa Blvd. (1) This project consists of the Limits: Oak Grove Rd./Campus Dr. to Wichita St. construction of a new four-lane divided

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial 6,905
Service Area(s): X

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
108	Unclassified Street Excavation	30,689	су	\$	10.50	\$ 322,233
208	6" Lime Stabilization (with Lime @ 32#/sy)	46,033	sy	\$	3.00	\$ 138,100
308	11" Concrete Pavement	42,964	sy	\$	44.00	\$ 1,890,436
408	6" Curb & Gutter	27,620	lf	\$	6.50	\$ 179,530
508	4" Topsoil	34,525	sy	\$	5.00	\$ 172,625
608	4' Concrete Sidewalk	55,240	sf	\$	5.00	\$ 276,200
701	Turn Lanes and Median Openings	4,992	sy	\$	44.00	\$ 219,637
	Pr	avina Constr	ruction C	Cost	Subtotal:	\$ 3.198.760

		<u> </u>			
Maj	or Construction Component Allow				
	Item Description	Notes	Allowance		Item Cost
	Prep ROW		3%	\$	95,963
	Traffic Control	None Anticipated	0%	\$	-
	Pavement Markings/Markers		2%	\$	68,667
	Roadway Drainage	Standard Internal System	30%	\$	959,628
	Illumination		11%	\$	360,204
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000
	Water	Minor Adjustments	6%	\$	191,926
	Sewer	Minor Adjustments	4%	\$	127,950
	Establish Turf / Erosion Control		3%	\$	95,963
	Basic Landscaping		3%	\$	95,963
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000
	Other:	Railroad Crossing	\$250,000	\$	250,000
		Allowa	ance Subtotal:	\$	2,796,264
		Paving and Allowa		\$	5,995,024
	Construction Contingency: 15%				
		Construction C	ost TOTAL:	\$	6,857,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	6,857,000			
Engineering/Survey/Testing:		20%	\$	1,371,400			
Mobilization		5%	\$	342,850			
Previous City contribution			\$	-			
Other	CFA# 2011005		\$	(519,612)			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,371,400			
	Impact Fee Project Cost TOTAL:						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. X-5

Name: Altamesa Blvd. (2) This project consists of the construction of a new

Limits: Lana Circle to Forest Hill Dr. four-lane divided major arterial.

Impact Fee Class: MA4D
Ultimate Class: Major Arterial
Length (If): 3,055

Service Area(s):

Roa	dway Construction Cost Proje	ection					
No.	Item Description		Quantity	Unit	Ur	nit Price	Item Cost
108	Unclassified Street Excavation		13,578	су	\$	10.50	\$ 142,567
208	6" Lime Stabilization (with Lime @ 32	#/sy)	20,367	sy	\$	3.00	\$ 61,100
308	11" Concrete Pavement		19,009	sy	\$	44.00	\$ 836,391
408	6" Curb & Gutter		12,220	lf	\$	6.50	\$ 79,430
508	4" Topsoil		15,275	sy	\$	5.00	\$ 76,375
608	4' Concrete Sidewalk		24,440	sf	\$	5.00	\$ 122,200
701	Turn Lanes and Median Openings		2,209	sy	\$	44.00	\$ 97,174
		Pa	ving Const	ruction (	Cost	Subtotal:	\$ 1,415,237
Majo	r Construction Component Allowan	ices:					
	Item Description	Notes			All	owance	Item Cost
	_						

Majo	or Construction Component Allowa					
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	42,457	
	Traffic Control	None Anticipated	0%	\$	-	
	Pavement Markings/Markers		2%	\$	30,381	
	Roadway Drainage	Standard Internal System	30%	\$	424,571	
	Illumination		11%	\$	159,366	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	84,914	
	Sewer	Minor Adjustments	4%	\$	56,609	
	Establish Turf / Erosion Control		3%	\$	42,457	
	Basic Landscaping		3%	\$	42,457	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000	
	Other:		\$0	\$	-	
		Allowa	nce Subtotal:	\$	1,033,213	
	Paving and Allowance Subtotal: \$					
		Construction Contingency:	15%	\$	367,268	
		Construction C	ost TOTAL:	\$	2,816,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,816,000			
Engineering/Survey/Testing:		20%	\$	563,200			
Mobilization		5%	\$	140,800			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	563,200			
	Impact Fee Project Cost TOTAL:						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Joel East Rd.

Oak Grove Rd. to Wichita St.

Impact Fee Class:

M4U

Description:

Project No.

X-6

This project consists of the reconstruction of a two-lane undivided asphalt facility into a four-lane undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 5,805 Service Area(s): X

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	18,705	су	\$	10.50	\$ 196,403
206	6" Lime Stabilization (with Lime @ 32#/sy)	36,765	sy	\$	3.00	\$ 110,295
306	9" Concrete Pavement	35,475	sy	\$	36.00	\$ 1,277,100
406	6" Curb & Gutter	11,610	lf	\$	6.50	\$ 75,465
506	4" Topsoil	9,675	sy	\$	5.00	\$ 48,375
606	4' Concrete Sidewalk	46,440	sf	\$	5.00	\$ 232,200
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 1,939,838

Major Construction Component Allow			
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 58,195
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 58,195
√ Pavement Markings/Markers	Pavement Markings and Bike Route	3%	\$ 58,195
√ Roadway Drainage	Standard Internal System	30%	\$ 581,951
$\sqrt{}$ Illumination		11%	\$ 218,440
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 116,390
√ Sewer	Minor Adjustments	4%	\$ 77,594
√ Establish Turf / Erosion Control		3%	\$ 58,195
√ Basic Landscaping		3%	\$ 58,195
$\sqrt{}$ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 300,000
Other:		\$0	\$ -
	Allo	wance Subtotal:	\$ 1,585,351
	\$ 3,525,188		
	\$ 528,778		
	Construction	Cost TOTAL:	\$ 4,054,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	4,054,000			
Engineering/Survey/Testing:		20%	\$	810,800			
Mobilization		5%	\$	202,700			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	405,400			
	\$	5,473,000					

**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.

No. Item Description

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Item Cost** 

<b>Project Informat</b>	tion:	Description:	Project No.	Z-1, X-7
Name:	Everman Pkwy. (1)	This project consi	sts of the constru	ction of a new
Limits:	Butterwick St. to Cameron Hill	six-lane divided pr	rincipal arterial. Tl	his will provide
Impact Fee Class:	MA4D	a connection betw	een the two exist	ing segments of
Ultimate Class:	Major Arterial	Everman Pkwy.		0 0
Length (If):	2,980	,		
Service Area(s):	Z, X			

Quantity Unit Unit Price

Qualitity	Ollic				
13,244	су	\$	10.50	\$	139,067
19,867	sy	\$	3.00	\$	59,600
18,542	sy	\$	44.00	\$	815,858
11,920	lf	\$	6.50	\$	77,480
14,900	sy	\$	5.00	\$	74,500
23,840	sf	\$	5.00	\$	119,200
2,154	sy	\$	44.00	\$	94,789
aving Const	ruction (	Cost	Subtotal:	\$	1,380,493
	-				
		All	owance		Item Cost
			3%	\$	41,415
			0%	\$	-
			2%	\$	29,635
ystem			30%	\$	414,148
			11%	\$	155,454
Creek		\$	250,000	\$	250,000
			6%	\$	82,830
			4%	\$	55,220
				\$	41,415
				\$	41,415
ent per Half Mile					150,000
√ Other: Railroad Crossing					250,000
Allowance Subtotal:					1,511,530
					2,892,023
					396,304 <b>3,289,000</b>
Construction Cost TOTAL:					
	13,244 19,867 18,542 11,920 14,900 23,840 2,154  aving Constr	13,244 cy 19,867 sy 18,542 sy 11,920 lf 14,900 sy 23,840 sf 2,154 sy  aving Construction C	13,244	13,244   Cy   \$ 10.50     19,867   Sy   \$ 3.00     18,542   Sy   \$ 44.00     11,920   If   \$ 6.50     14,900   Sy   \$ 5.00     23,840   Sf   \$ 5.00     2,154   Sy   \$ 44.00     aving Construction Cost Subtotal:    Allowance	13,244   cy   \$ 10.50   \$ 19,867   sy   \$ 3.00   \$ 18,542   sy   \$ 44.00   \$ 11,920   If   \$ 6.50   \$ 14,900   sy   \$ 5.00   \$ 23,840   sf   \$ 5.00   \$ 2,154   sy   \$ 44.00   \$   \$ aving Construction Cost Subtotal: \$

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,289,000
Engineering/Survey/Testing:		20%	\$ 657,800
Mobilization		5%	\$ 164,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 657,800
	Impact Fee Projec	t Cost TOTAL:	\$ 4,769,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-2, X-8
Name: Everman Pkwy. (2) This project consists of the

Limits: Cameron Hill to 320' E. of Sheridan Rd.

Impact Fee Class: MA4D (1/2) Cameron Hill to 320 E. of Sheridan Rd. reconstru

Ultimate Class: Major Arterial
Length (If): 1,525
Service Area(s): Z, X

reconstruction of an existing two-lane undivided concrete facility to a six-lane

divided principal arterial.

No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
110			3,558	СУ	\$	10.50	\$	37,363
_	6" Lime Stabilization (with Lime @ 3	27#/cv/	5,083	sy	\$	3.00	\$	15,250
310	· ·	02#/3y)	4,744	sy sy	\$	44.00	\$	208,756
410			4,575	Sy If	\$	6.50	\$	29,738
-			,		\$		\$	,
	4" Topsoil		5,846	sy		5.00		29,229
	4' Concrete Sidewalk		6,100	sf	\$	5.00	\$	30,500
701	Turn Lanes and Median Openings		1,102	sy	\$	44.00	\$	48,508
		Pa	aving Consti	uction (	ost :	Subtotal:	\$	399,342
Majo	or Construction Component Allows							
	Item Description	Notes			Alle	owance		Item Cost
√,	Prep ROW					3%		11,980
√,	Traffic Control	Construction Phase	Traffic Control			3%		11,980
√.	Pavement Markings/Markers					2%		8,573
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	119,803
	Illumination					11%	\$	44,969
	Special Drainage Structures	None Anticipated			\$	-	\$	-
$\checkmark$	Water	Minor Adjustments				6%	\$	23,961
	Sewer	Minor Adjustments				4%	\$	15,974
$\checkmark$	Establish Turf / Erosion Control					3%	\$	11,980
	Basic Landscaping					3%		11,980
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
		1		Allowa	nce S	Subtotal:	\$	261,200
Allowance dubtotal.						1	,	

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 760,000
Engineering/Survey/Testing:		20%	\$ 152,000
Mobilization		5%	\$ 38,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 76,000
	Impact Fee Project C	ost TOTAL:	\$ 1,026,000

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

**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.

\$

660,542

99,081

760,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Item Cost** 

Project Information:

Name:
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Description:

Description:

Project No.

X-9

This project consists of the widening of a two-lane undivided concrete facility into a four-lane divided major arterial.

Quantity Unit Unit Price

Length (If): 2,045 Service Area(s): X

No. Item Description

	•		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
111 l	Unclassified Street Excavation		4,772	су	\$	10.50	\$	50,103
211	1 6" Lime Stabilization (with Lime @ 32#/sy)		7,044	sy	\$	3.00	\$	21,132
311	11" Concrete Pavement		6,589	sy	\$	44.00	\$	289,936
411	6" Curb & Gutter		6,135	lf	\$	6.50	\$	39,878
511	4" Topsoil		7,385	sy	\$	5.00	\$	36,924
611	4' Concrete Sidewalk		8,180	sf	\$	5.00	\$	40,900
701	Turn Lanes and Median Openings		1,478	sy	\$	44.00	\$	65,048
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	543,919
	r Construction Component Allowar							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW		- <del></del>			3%		16,318
1.	Traffic Control	Construction Phase	Traffic Control			3%	\$	16,318
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	21,757
	Roadway Drainage	Standard Internal Sys	stem			30%		163,176
	Illumination					11%	\$	61,249
	Special Drainage Structures	Crossing for Scyamo	ore Branch is bu	ilt	\$	-	\$	-
√, \	Water	Minor Adjustments				6%		32,635
1 1	Sewer	Minor Adjustments				4%		21,757
1 1	Establish Turf / Erosion Control					3%		16,318
	Basic Landscaping					3%		16,318
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0	_	-
	Allowance Subtotal:						\$	365,844
							_	
		_	Paving an					909,763
		Constru	uction Conti			15%		136,464
			Construc	ction C	ost <sup>-</sup>	TOTAL:	\$	1,047,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,047,000
Engineering/Survey/Testing:		20%	\$ 209,400
Mobilization		5%	\$ 52,350
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 104,700
	Impact Fee Proje	ect Cost TOTAL:	\$ 1,413,000

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. X-10
Name: Hemphill St. (2) This project consists of the

Name: Hemphill St. (2)

Limits: This project consists of the construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial
Length (If): 2,105
Service Area(s): X

No.	Item Description	-	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation		9,589	су	\$	10.50	\$ 100,689
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	14,501	sy	\$	3.00	\$ 43,503
309	11" Concrete Pavement		13,566	sy	\$	44.00	\$ 596,884
409	6" Curb & Gutter		8,420	lf	\$	6.50	\$ 54,730
509	4" Topsoil		10,057	sy	\$	5.00	\$ 50,286
609	4' Concrete Sidewalk		16,840	sf	\$	5.00	\$ 84,200
701	Turn Lanes and Median Openings		1,522	sy	\$	44.00	\$ 66,957
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 997,250
Majo	or Construction Component Allowa						
	Item Description	Notes			Alle	owance	Item Cost
	Prep ROW					3%	29,917
١,	Traffic Control	None Anticipated				0%	-
V	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	39,890
V	Roadway Drainage	Standard Internal Sy	stem			30%	299,175
	Illumination					11%	\$ 112,298
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 59,835
	Sewer	Minor Adjustments				4%	39,890
	Establish Turf / Erosion Control					3%	29,917
	Basic Landscaping					3%	29,917
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:				\$0	\$ -	
	Allowance Subtotal:				\$ 640,840		
			Paving an				1,638,089
	Construction Contingency: 15%						\$ 245,713

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,884,000
Engineering/Survey/Testing:		20%	\$ 376,800
Mobilization		5%	\$ 94,200
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 376,800
	Impact Fee Proj	ect Cost TOTAL:	\$ 2,732,000

Construction Cost TOTAL: \$

**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.

1,884,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information	tion:	Description:	Project No.	X-11
Name:	Hemphill St. (3)		This project cons	ists of the
Limits:	360' S of Sycamore School Rd. to Rose	dale Springs Ln.	widening of a two	o-lane
Impact Fee Class:	MA4D-B (1/2)		undivided concre	te facility into
Ultimate Class:	Major Arterial		a four-lane divide	d maior
Length (If):	2,185		arterial.	
Service Area(s):	X		u	

No.	Item Description	-	Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		5,098	су	\$	10.50	\$	53,533
211	6" Lime Stabilization (with Lime @ 3	32#/sy)	7,526	sy	\$	3.00	\$	22,578
311	11" Concrete Pavement		7,041	sy	\$	44.00	\$	309,784
411	6" Curb & Gutter		6,555	lf	\$	6.50	\$	42,608
511	4" Topsoil		7,890	sy	\$	5.00	\$	39,451
611	4' Concrete Sidewalk		8,740	sf	\$	5.00	\$	43,700
701	Turn Lanes and Median Openings		1,580	sy	\$	44.00	\$	69,501
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	581,155
Maio	or Construction Component Allows	ances.						
Maje	Item Description	Notes			Alle	owance	П	Item Cost
1	Prep ROW					3%	\$	17,435
$\checkmark$	Traffic Control	Construction Phase	Traffic Control			3%	\$	17,435
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$	23,246
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	174,347
	Illumination					11%	\$	65,442
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	34,869
	Sewer	Minor Adjustments				4%	\$	23,246
	Establish Turf / Erosion Control					3%	\$	17,435
	Basic Landscaping					3%	\$	17,435
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
Allowance Subtotal:						\$	390,889	
							Ļ	
		0 1	Paving an					972,045
		Constru	uction Conti			15%		145,807
			Constru	ction C	ost 7	IOTAL:	\$	1,118,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,118,000
Engineering/Survey/Testing:		20%	\$ 223,600
Mobilization		5%	\$ 55,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 111,800
	Impact Fee Project	t Cost TOTAL:	\$ 1,509,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. X-12

Name: Hemphill St. (4) This project consists of the

Name: Hemphill St. (4)
Limits: This project consists of the construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial
Length (If): 815
Service Area(s): X

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Uni	it Price	Item Cost
109	Unclassified Street Excavation	3,713	су	\$	10.50	\$ 38,984
209	6" Lime Stabilization (with Lime @ 32#/sy)	5,614	sy	\$	3.00	\$ 16,843
309	11" Concrete Pavement	5,252	sy	\$	44.00	\$ 231,098
409	6" Curb & Gutter	3,260	lf	\$	6.50	\$ 21,190
509	4" Topsoil	3,894	sy	\$	5.00	\$ 19,469
609	4' Concrete Sidewalk	6,520	sf	\$	5.00	\$ 32,600
701	Turn Lanes and Median Openings	589	sy	\$	44.00	\$ 25,924
701	Turn Lanes and Median Openings	589		\$	44.00	\$ 25

Paving Construction Cost Subtotal: \$ 386,109

Mai	or Construction Component Allow	2022		
IVIAJ	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 11,583
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 15,444
	Roadway Drainage	Standard Internal System	30%	\$ 115,833
	Illumination		11%	\$ 43,479
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 23,167
	Sewer	Minor Adjustments	4%	\$ 15,444
	Establish Turf / Erosion Control		3%	\$ 11,583
	Basic Landscaping		3%	\$ 11,583
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:		\$0	\$ -
		Allowa	nce Subtotal:	\$ 248,116
		Paving and Allowa	nce Subtotal:	\$ 634,225
		Construction Contingency:	15%	\$ 95,134
		Construction C	ost TOTAL:	\$ 730,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 730,000
Engineering/Survey/Testing:		20%	\$ 146,000
Mobilization		5%	\$ 36,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 146,000
	Impact Fee Proj	ject Cost TOTAL:	\$ 1,059,000

**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.

Service Area(s):

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Χ

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	X-13
Name:	Oak Grove Rd. (2)	This project consists o	f the widening o	f an existing
Limits:	Altamesa Blvd. to RR tracks	two-lane undivided cor	ncrete facility into	o a four-lane
Impact Fee Class:	MA4D-B (1/2)	divided major arterial.	•	
Ultimate Class:	Major Arterial			
Length (If):	1,015			

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
111	Unclassified Street Excavation	2,368	су	\$	10.50	\$ 24,868
211	6" Lime Stabilization (with Lime @ 32#/sy)	3,496	sy	\$	3.00	\$ 10,488
311	11" Concrete Pavement	3,271	sy	\$	44.00	\$ 143,904
411	6" Curb & Gutter	3,045	lf	\$	6.50	\$ 19,793
511	4" Topsoil	3,665	sy	\$	5.00	\$ 18,326
611	4' Concrete Sidewalk	4,060	sf	\$	5.00	\$ 20,300
701	Turn Lanes and Median Openings	734	sy	\$	44.00	\$ 32,285

	Paving Construction (	Cost Subtotal:	\$	269,965
--	-----------------------	----------------	----	---------

Major	r Construction Component Allow	ances:	_	
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 8,099
$\sqrt{}$	Traffic Control	Construction Phase Traffic Control	3%	\$ 8,099
$\checkmark$	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 10,799
$\checkmark$	Roadway Drainage	Standard Internal System	30%	\$ 80,989
$\checkmark$	Illumination		11%	\$ 30,400
	Special Drainage Structures	None Anticipated	\$ -	\$ -
$\sqrt{}$	Water	Minor Adjustments	6%	\$ 16,198
$\sqrt{}$	Sewer	Minor Adjustments	4%	\$ 10,799
$\checkmark$	Establish Turf / Erosion Control		3%	\$ 8,099
$\checkmark$	Basic Landscaping		3%	\$ 8,099
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
$\sqrt{}$	Other:	Railroad Crossing (1/2)	\$125,000	\$ 125,000
		Allowa	nce Subtotal:	\$ 306,580
		Paving and Allowa		\$ 576,545
		Construction Contingency:	15%	\$ 67,732
		Construction C	ost TOTAL:	\$ 645,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 645,000
Engineering/Survey/Testing:		20%	\$ 129,000
Mobilization		5%	\$ 32,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 64,500
	Impact Fee Project	t Cost TOTAL:	\$ 871,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. X-14 Description: Name: Oak Grove Rd. (3) This project consists of the reconstruction of a two-Limits: RR tracks to Everman Pkwy.

Impact Fee Class: MA4D-B **Ultimate Class:** Major Arterial

Intersections (Signal, Roundabout, etc.)

Other:

Length (If): 8,360 Service Area(s): Χ

lane undivided asphalt facility into a four-lane divided major arterial.

\$150,000

\$125,000

\$

Allowance Subtotal:

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

450,000

125.000

3,488,911

7,449,484

1,098,673

8,549,000

Roa	dway Construction Cost Pro	ection						
No.	Item Description		Quantity	Unit	U	nit Price		Item Cost
109	Unclassified Street Excavation		38,084	су	\$	10.50	\$	399,887
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	57,591	sy	\$	3.00	\$	172,773
309	11" Concrete Pavement		53,876	sy	\$	44.00	\$	2,370,524
409	6" Curb & Gutter		33,440	lf	\$	6.50	\$	217,360
509	4" Topsoil		39,942	sy	\$	5.00	\$	199,711
609	4' Concrete Sidewalk		66,880	sf	\$	5.00	\$	334,400
701	Turn Lanes and Median Openings		6,044	sy	\$	44.00	\$	265,918
		Pa	aving Constr	uction (	Cost	Subtotal:	\$	3,960,573
Maid	or Construction Component Allowa							
Majo	or construction component Anowa	ances:						
Majo	Item Description	Notes			Al	lowance		Item Cost
wajo					Al	lowance 3%	\$	Item Cost 118,817
Wajo	Item Description		Traffic Control		Al			
<b>V</b>	Item Description Prep ROW	Notes			Al	3%	\$	118,817
√ √ √	Item Description Prep ROW Traffic Control	Notes  Construction Phase	with Bike Lanes		Al	3% 3%	\$ \$	118,817 118,817
√ √ √	Item Description  Prep ROW  Traffic Control  Pavement Markings/Markers	Notes  Construction Phase Pavement Markings	with Bike Lanes		Al	3% 3% 4%	\$ \$ \$	118,817 118,817 158,423
\ \ \ \ \	Item Description Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage	Notes  Construction Phase Pavement Markings	with Bike Lanes stem		AI	3% 3% 4% 30%	\$ \$ \$	118,817 118,817 158,423 1,188,172
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Item Description Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination	Notes  Construction Phase Pavement Markings Standard Internal Sy	with Bike Lanes stem			3% 3% 4% 30% 11%	\$ \$ \$ \$ \$ \$	118,817 118,817 158,423 1,188,172 445,989
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Item Description Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures	Construction Phase Pavement Markings Standard Internal Sy Minor Stream Crossi	with Bike Lanes stem			3% 3% 4% 30% 11% 250,000	\$ \$ \$ \$ \$ \$ \$	118,817 118,817 158,423 1,188,172 445,989 250,000
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Item Description Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water	Construction Phase Pavement Markings Standard Internal Sy Minor Stream Crossi Minor Adjustments	with Bike Lanes stem			3% 4% 30% 11% 250,000 6%	\$ \$ \$ \$ \$ \$ \$ \$ \$	118,817 118,817 158,423 1,188,172 445,989 250,000 237,634

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 8,549,000
Engineering/Survey/Testing:		20%	\$ 1,709,800
Mobilization		5%	\$ 427,450
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 854,900

Assume Improvement per Half Mile

Railroad Crossing (1/2)

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: X-15 Project No. Name: Wichita St. (1) This project consists of the Limits: 340' N of Altamesa Blvd. to Joel East Rd. reconstruction of a two-lane undivided Impact Fee Class: MA4D asphalt facility into a four-lane divided **Ultimate Class:** Major Arterial major arterial. Length (If): 1,050 Service Area(s): Χ

No.	Item Description	•	Quantity	Unit	Un	it Price	Item Cost
108	Unclassified Street Excavation		4,667	су	\$	10.50	\$ 49,000
208	08 6" Lime Stabilization (with Lime @ 32#/sy) 7,000 sy			\$	3.00	\$ 21,000	
308	08 11" Concrete Pavement 6,533 sy				\$	44.00	\$ 287,467
408	6" Curb & Gutter		4,200	lf	\$	6.50	\$ 27,300
508	4" Topsoil		5,250	sy	\$	5.00	\$ 26,250
608	4' Concrete Sidewalk		8,400	sf	\$	5.00	\$ 42,000
701	Turn Lanes and Median Openings		759	sy	\$	44.00	\$ 33,399
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$ 486,415
Maio	or Construction Component Allowa	ancas:					
Maje	Item Description	Notes			ΔΙΙα	owance	Item Cost
	Prep ROW	110100			7111	3%	\$ 14,592
V	Traffic Control	Construction Phase	Traffic Control			3%	\$ 14,592
Ì	Pavement Markings/Markers	Conditaction i nacc				2%	10,442
V	Roadway Drainage	Standard Internal Sys	stem			30%	 145,925
V	Illumination					11%	 54,774
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments			*	6%	\$ 29,185
	Sewer	Minor Adjustments				4%	\$ 19,457
	Establish Turf / Erosion Control	,				3%	\$ 14,592
	Basic Landscaping					3%	\$ 14,592
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:	·				\$0	\$ -
				Allowa	nce S	Subtotal:	\$ 318,152
			Paving an				804,567
Construction Contingency: 15%					\$ 120,685		

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 926,000
Engineering/Survey/Testing:		20%	\$ 185,200
Mobilization		5%	\$ 46,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 92,600
	Impact Fee Project C	ost TOTAL:	\$ 1,250,000

**Construction Cost TOTAL:** 

**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.

926,000

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. X-16 Description: Name: Wichita St. (2) This project consists of the reconstruction of a two-Limits: Joel East Rd. to 130' N of Buie Dr. lane undivided asphalt facility into a four-lane divided major arterial.

Impact Fee Class: MA4D **Ultimate Class:** Major Arterial

Length (If): 925 Service Area(s): Χ

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Uni	it Price	Item Cost
108	Unclassified Street Excavation	4,111	су	\$	10.50	\$ 43,167
208	6" Lime Stabilization (with Lime @ 32#/sy)	6,167	sy	\$	3.00	\$ 18,500
308	11" Concrete Pavement	5,756	sy	\$	44.00	\$ 253,244
408	6" Curb & Gutter	3,700	lf	\$	6.50	\$ 24,050
508	4" Topsoil	4,625	sy	\$	5.00	\$ 23,125
608	4' Concrete Sidewalk	7,400	sf	\$	5.00	\$ 37,000
701	Turn Lanes and Median Openings	669	sy	\$	44.00	\$ 29,423

Paving Construction Cost Subtotal: \$ 428,509

Majo	or Construction Component Allow	ances:		
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 12,855
	Traffic Control	Construction Phase Traffic Control	3%	\$ 12,855
	Pavement Markings/Markers	Pavement Markings and Bike Route	3%	\$ 12,855
	Roadway Drainage	Standard Internal System	30%	\$ 128,553
	Illumination		11%	\$ 48,253
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 25,711
	Sewer	Minor Adjustments	4%	\$ 17,140
	Establish Turf / Erosion Control		3%	\$ 12,855
	Basic Landscaping		3%	\$ 12,855
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:		\$0	\$ -
		Allowa	ance Subtotal:	\$ 283,933
		Paving and Allowa	ance Subtotal:	\$ 712,442
		Construction Contingency:	15%	\$ 106,866
		Construction C	ost TOTAL:	\$ 820,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 820,000
Engineering/Survey/Testing:		20%	\$ 164,000
Mobilization		5%	\$ 41,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 82,000
	Impact Fee Projec	t Cost TOTAL:	\$ 1,107,000

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. 10/2/2012 updated:

**Project Information:** Project No. Description: Forest Hill Dr. (1) This project consists of the reconstruction of a two-

Name: Limits: Lon Stevenson Rd. to S City Limits lane undivided asphalt facility into a four-lane

Impact Fee Class: MA4D-B divided major arterial. **Ultimate Class:** 

Major Arterial Length (If): 3,790 Service Area(s): Χ

No. Item Description			Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		17,266	су	\$	10.50	\$	181,288
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	26,109	sy	\$	3.00	\$	78,327
309	11" Concrete Pavement		24,424	sy	\$	44.00	\$	1,074,676
409	6" Curb & Gutter		15,160	lf	\$	6.50	\$	98,540
509	4" Topsoil		18,108	sy	\$	5.00	\$	90,539
609	4' Concrete Sidewalk		30,320	sf	\$	5.00	\$	151,600
701	Turn Lanes and Median Openings		2,740	sy	\$	44.00	\$	120,554
		Pa	aving Constr	ruction (	Cost S	Subtotal:	\$	1,795,523
Majo	or Construction Component Allow							
	Item Description	Notes			Alle	owance		Item Cost
$\sqrt{}$	Prep ROW					3%		53,866
√.	Traffic Control	Construction Phase	Traffic Control			3%	\$	53,866
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	71,821
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem			30%	\$	538,657
	Illumination					11%	\$	202,189
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	107,731
٧								
V	Sewer	Minor Adjustments				4%	\$	71,821
',	Sewer Establish Turf / Erosion Control	Minor Adjustments				4% 3%	-	71,821 53,866
Ž		Minor Adjustments					\$	

Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,627,000
Engineering/Survey/Testing:		20%	\$ 725,400
Mobilization		5%	\$ 181,350
Previous City contribution			\$ -
Other	CFA# 2004148		\$ (173,636
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 362,700

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.

Other:

\$

1,357,682

3,153,205

3,627,000

472,981

Allowance Subtotal:

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Anglin Dr.
Limits:
Description:
Project No.

X-18
This project consists of the reconstruction of a two-lane undivided asphalt facility into a four-lane

undivided minor arterial.

Impact Fee Class: M4U

Ultimate Class: Minor Arterial

Length (If): 5,295 Service Area(s): X

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	17,062	су	\$	10.50	\$ 179,148
206	6" Lime Stabilization (with Lime @ 32#/sy)	33,535	sy	\$	3.00	\$ 100,605
306	9" Concrete Pavement	32,358	sy	\$	36.00	\$ 1,164,900
406	6" Curb & Gutter	10,590	lf	\$	6.50	\$ 68,835
506	4" Topsoil	8,825	sy	\$	5.00	\$ 44,125
606	4' Concrete Sidewalk	42,360	sf	\$	5.00	\$ 211,800
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 1,769,413

Major Construction Component Allov Item Description	vances: Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 53,082
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 53,082
√ Pavement Markings/Markers		2%	\$ 37,984
√ Roadway Drainage	Standard Internal System	30%	\$ 530,824
√ Illumination		11%	\$ 199,249
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$ 250,000
√ Water	Minor Adjustments	6%	\$ 106,165
√ Sewer	Minor Adjustments	4%	\$ 70,777
√ Establish Turf / Erosion Control		3%	\$ 53,082
√ Basic Landscaping		3%	\$ 53,082
$\sqrt{}$ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 300,000
Other:		\$0	\$ -
	Allow	ance Subtotal:	\$ 1,707,327
	Paving and Allow		\$ 3,476,740
	Construction Contingency	<b>/</b> : 15%	\$ 521,511
	Construction (	Cost TOTAL:	\$ 3,999,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 3,999,000
Engineering/Survey/Testing:		20%	\$ 799,800
Mobilization		5%	\$ 199,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 399,900
	Impact Fee Project	Cost TOTAL:	\$ 5,399,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. X-19 Description: Name: Dick Price Rd. This project consists of the reconstruction of a two-Limits: N City Limits to S City Limits lane undivided asphalt facility into a four-lane undivided minor arterial.

Impact Fee Class: M4U **Ultimate Class:** Minor Arterial

Length (If): 2,555 Service Area(s): Χ

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	8,233	су	\$	10.50	\$ 86,444
206	6" Lime Stabilization (with Lime @ 32#/sy)	16,182	sy	\$	3.00	\$ 48,545
306	9" Concrete Pavement	15,614	sy	\$	36.00	\$ 562,100
406	6" Curb & Gutter	5,110	lf	\$	6.50	\$ 33,215
506	4" Topsoil	4,258	sy	\$	5.00	\$ 21,292
606	4' Concrete Sidewalk	20,440	sf	\$	5.00	\$ 102,200
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 853,796

Major Construction Component Allow Item Description	vances: Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 25,614
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 25,614
√ Pavement Markings/Markers		2%	\$ 18,328
√ Roadway Drainage	Standard Internal System	30%	\$ 256,139
√ Illumination		11%	\$ 96,144
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 51,228
√ Sewer	Minor Adjustments	4%	\$ 34,152
√ Establish Turf / Erosion Control		3%	\$ 25,614
√ Basic Landscaping		3%	\$ 25,614
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allov	vance Subtotal:	\$ 558,446
	Paving and Allov	vance Subtotal:	\$ 1,412,242
	Construction Contingency	y: 15%	\$ 211,836
	Construction (	Cost TOTAL:	\$ 1,625,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,625,000
Engineering/Survey/Testing:		20%	\$ 325,000
Mobilization		5%	\$ 81,250
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 162,500
	Impact Fee Project	ct 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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 X-20

 Name:
 Enon Rd.
 This project consists of the reconstruction of a two-lame

 Limits:
 W. City Limits to Anglin Dr.
 lane undivided asphalt facility into a four-lane

undivided minor arterial.

Impact Fee Class: M4U

Ultimate Class: Minor Arterial

Length (If): 2,635 Service Area(s): X

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	8,491	су	\$	10.50	\$ 89,151
206	6" Lime Stabilization (with Lime @ 32#/sy)	16,688	sy	\$	3.00	\$ 50,065
306	9" Concrete Pavement	16,103	sy	\$	36.00	\$ 579,700
406	6" Curb & Gutter	5,270	lf	\$	6.50	\$ 34,255
506	4" Topsoil	4,392	sy	\$	5.00	\$ 21,958
606	4' Concrete Sidewalk	21,080	sf	\$	5.00	\$ 105,400
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$880,529

	·		
Major Construction Component Allov Item Description	vances: Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 26,416
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 26,416
√ Pavement Markings/Markers		2%	\$ 18,902
√ Roadway Drainage	Standard Internal System	30%	\$ 264,159
√ Illumination		11%	\$ 99,154
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 52,832
√ Sewer	Minor Adjustments	4%	\$ 35,221
√ Establish Turf / Erosion Control		3%	\$ 26,416
√ Basic Landscaping		3%	\$ 26,416
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allov	vance Subtotal:	\$ 575,931
	\$ 1,456,461		
	\$ 218,469		
	Construction	Cost TOTAL:	\$ 1,675,000

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	1,675,000		
Engineering/Survey/Testing:		20%	\$	335,000		
Mobilization		5%	\$	83,750		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	167,500		
Impact Fee Project Cost TOTAL:				2,261,000		

**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.

### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### **Service Area Y**

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>	Cost
W-5, Y-1	P6D	Dirks Rd. (1)	Bryant Irvin Rd. to Harris Pkwy.	\$ 1,797,748.00
W-6, Y-2	P6D	Dirks Rd. (2)	Harris Pkwy. to South Orient RR	\$ 2,479,747
Y-3	MA4D-B	Columbus Trl. (1)	Future Bryant Irvin to South Orient RR	\$ 1,331,000
Y-4	MA4D-B	Columbus Trl. (2)	South Orient RR to future Brewer Blvd.	\$ 1,234,000
Y-5	MA4D-B	Sycamore School Rd. (1)	Future Brewer Blvd. to future SH 121	\$ 1,262,000
Y-6	P6D (1/3)	Sycamore School Rd. (2)	Future SH 121 to Summer Creek Dr.	\$ 653,000
Y-7	MA4D	Sycamore School Rd. (3)	Summer Creek Dr. to Creek Meadow Dr.	\$ 130,679
Y-8	MA4D-B (1/2)	Risinger Rd. (1)	760' E of McCart Ave. to Poynter St.	\$ 1,033,000
Y-9	MA4D-B	Risinger Rd. (2)	Poynter St. to existing Risinger Rd. Dead End	\$ 2,534,000
Y-10	MA4D-B	Risinger Rd. (3)	Existing Risinger Rd. Dead End to FM 731	\$ 3,260,000
Y-11	MA4D	McPherson Blvd. (1)	FM 1902 to future SH 121	\$ 1,134,475
Y-12	MA4D-B (1/2)	McPherson Blvd. (2)	Summer Creek Dr. to Willow Branch Way	\$ 1,887,880
Y-13	MA4D-B	McPherson Blvd. (3)	Cleburne Rd. to E City Limits	\$ 4,392,000
Y-14	M4U	Stewart Feltz Rd. (1)	Future Brewer Blvd. to Stewart Feltz Rd. SB Bend	\$ 1,808,000
Y-15	M4U	Stewart Feltz Rd. (2)	Stewart Feltz Rd. SB Bend to Sunflower Ridge Rd.	\$ 1,286,000
Y-16	M4U (1/2)	Sunflower Ridge Rd.	Existing Sunflower Ridge Rd. Dead End to future Summer Creek Dr.	\$ 617,000
Y-17	MA4D-B	Cleburne Crowley Rd. (1)	W City Limits to Stewart Feltz Rd. EB Curve	\$ 6,583,000
Y-18	MA4D-B	Cleburne Crowley Rd. (2)	Stewart Feltz Rd. EB Curve to 460' W. of Rancho Viejo	\$ 3,494,000
Y-19	M4U	Cleburne Rd.	Cleburne Crowley Rd. to Summer Creek Dr.	\$ 1,901,000
Y-20	MA4D-B	Bryant Irvin (1)	Dirks Rd. to 2,755' S. of Dirks Rd.	\$ 3,786,000
Y-21	MA4D-B	Bryant Irvin (2)	2,755' S. of Dirks Rd. to future Columbus Trl.	\$ 5,414,000
Y-22	MA4D	Bryant Irvin (3)	Future Columbus Trl. to S City Limits	\$ 13,717,000
Y-23	MA4D-B	Brewer Blvd. (1)	Columbus Trl. to 155' N. of Bindweed St.	\$ 4,565,000
Y-24	M4U-B	Brewer Blvd. (2)	125' S. of Risinger Rd. to McPherson Blvd.	\$ 3,270,000
Y-25	M4U	Brewer Blvd. (3)	McPherson Blvd. to SW City Limits	\$ 8,599,000
Y-26	MA4D	Granbury Rd. (2)	350' S. of Alta Mesa Blvd. to 630' N. of Appalachian Way	\$ 1,648,291
Y-27	MA4D	Granbury/Summer Creek Dr.	Summer Meadows to Columbus Trail	\$ 595,316
Y-28	MA4D-B (1/2)	Summer Creek Dr. (1)	Summer Park to Risinger Rd.	\$ 1,458,000
Y-29	MA4D-B	Summer Creek Dr. (2)	Risinger Rd. to McPherson Blvd.	\$ 2,952,839
Y-30	MA4D-B (1/2)	Summer Creek Dr. (3)	McPherson Blvd. to Sunflower Ridge Rd.	\$ 1,624,000
Y-31	MA4D-B	Summer Creek Dr. (4)	Sunflower Ridge Rd. to 640' N. of Cleburne Crowley Rd.	\$ 6,254,000
Y-32	MA4D-B	Summer Creek Dr. (5)	Cleburne Crowley Rd. to future Cleburne Rd. Alignment	\$ 474,000
Y-33	MA4D	Summer Creek Dr. (6)	Existing Cleburne Rd. to SW City Limits	\$ 10,176,000
Y-34	M4U-B	Cleburne Rd. (1)	Future Summer Creek Dr. to existing Cleburne Rd.	\$ 724,000
Y-35	M4U-B	Cleburne Rd. (2)	Existing Cleburne Rd. to future Cleburne Rd. Alignment	\$ 1,207,000
Y-36	M4U-B	Cleburne Rd. (3)	Existing Cleburne Rd. to S City Limits	\$ 1,743,000
Y-37	MA4D-B (1/2)	Hulen St. (1)	McPherson Blvd. to Carriage Crossing Dr.	\$ 689,000
Y-38	MA4D-B	Hulen St. (2)	Carriage Crossing Dr. to S City Limits	\$ 480,000
Y-39	MA4D-B	Hulen St. (3)	325' N. of Rancho Verde Pkwy. To S. City Limits	\$ 3,236,000
Y-40	MA4D (1/2)	McCart Ave. (1)	585' S. of Risinger Rd. to 135' S. of Cayman Dr.	\$ 1,474,000
Y-41	MA4D	McCart Ave. (2)	135' S of Cayman Dr. to future McPherson Blvd.	\$ 4,053,000
Y-42	M4U	McCart Ave. (3)	McPherson Blvd. to 145' N of Twinleaf Dr.	\$ 3,730,000
Y-43	M4U (1/2)	McCart Ave. (4)	300' S of Twinleaf Dr. to S City Limits	\$ 987,000

TOTAL \$121,674,975

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

# City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	ion:	Description:	Project No.	W-5, Y-1			
Name:	Dirks Rd. (1)	This completed project consisted of the					
Limits:	Bryant Irvin Rd. to Harris Pkwy.	construction of a s	six-lane divided pr	rincipal arterial.			
Impact Fee Class:	P6D	The total construc	tion contribution	from the City of			
Ultimate Class:	Principal Arterial	Fort Worth was \$1	,041,761. The City	y contributed			
Length (If):	2,735	\$1,608,484 for the					
Service Area(s):		Granbury Rd. \$75	•				
		section. Note, the	re was a \$2,407,44	44 contribution			
	W, Y	from Tarrant Coun	ty that was not in	cluded in this			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 1,041,761 \$755,987
	\$1,797,748		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	ion:	Description:	Project No.	W-6, Y-2			
Name:	Dirks Rd. (2)	This project consists of	of the reconstr	uction of an			
Limits:	Harris Pkwy. to Granbury Rd.	existing two-lane asph	alt facility into	a six-lane			
Impact Fee Class:	P6D	divided principal arter	ial. The City c	ontributed			
Ultimate Class:	Principal Arterial	\$1,608,484 for the desi	ign from Bryar	nt Irvin Rd. to			
Length (If):	3,085	Granbury Rd. \$852,49	7 (53%) was in	cluded in this			
Service Area(s):	W, Y	section. The City's anticipated contribution to the construction of this project is \$1,627,250. I there is a \$6,899,540 Federal contribution that not included in this cost.					

Impact Fee Project Cost Summar	у				
Item Description	Notes:	Allowance		Item Cost	
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$	1,627,250 852,497	
	Impact Fee Project Cost TOTAL:				

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Y-3

Name: Columbus Trl. (1) This project consists of the

Limits: Future Bryant Irvin to South Orient RR construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 885 Service Area(s): Y

Roa	dway Construction Cost Proje	ction					
No.	Item Description		Quantity	Unit	Ur	nit Price	Item Cost
109	Unclassified Street Excavation		4,032	су	\$	10.50	\$ 42,333
209	6" Lime Stabilization (with Lime @ 32#	<sup>t</sup> /sy)	6,097	sy	\$	3.00	\$ 18,290
309	11" Concrete Pavement		5,703	sy	\$	44.00	\$ 250,947
409	6" Curb & Gutter		3,540	lf	\$	6.50	\$ 23,010
509	4" Topsoil		4,228	sy	\$	5.00	\$ 21,142
609	4' Concrete Sidewalk		7,080	sf	\$	5.00	\$ 35,400
701	Turn Lanes and Median Openings		640	sy	\$	44.00	\$ 28,150
		Pa	ving Consti	ruction (	Cost	Subtotal:	\$ 419,271
Majo	r Construction Component Allowand	ces:			_		
	Item Description	Notes			All	owance	Item Cost

Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	12,578		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	16,771		
$\checkmark$	Roadway Drainage	Standard Internal System	30%	\$	125,781		
$\checkmark$	Illumination		11%	\$	47,213		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	25,156		
$\checkmark$	Sewer	Minor Adjustments	4%	\$	16,771		
	Establish Turf / Erosion Control		3%	\$	12,578		
$\checkmark$	Basic Landscaping		3%	\$	12,578		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
$\checkmark$	Other:	Railroad Crossing (1/2)	\$125,000	\$	125,000		
		Allowa	ince Subtotal:	\$	394,427		
	Paving and Allowance Subtotal:						
	Construction Contingency: 15%						
		Construction C	ost TOTAL:	\$	918,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	918,000			
Engineering/Survey/Testing:		20%	\$	183,600			
Mobilization		5%	\$	45,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	183,600			
	\$	1,331,000					

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:		Description:	Project No. Y-4
Name:	Columbus Trl. (2)		This project consists of the
Limits:	South Orient RR to future Brewer Blvd	l <b>.</b>	reconstruction of an existing two-lane
Impact Fee Class:	MA4D-B		undivided asphalt facility into a new
Ultimate Class:	Major Arterial		four-lane divided major arterial.
Length (If):	865		.,
Service Area(s):	Υ		

	Item Description	,	Quantity	Unit	Uni	it Price		Item Cost
109	Unclassified Street Excavation		3,941	су	\$	10.50	\$	41,376
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	5,959	sy	\$	3.00	\$	17,877
309	11" Concrete Pavement		5,574	sy	\$	44.00	\$	245,276
409	6" Curb & Gutter		3,460	lf	\$	6.50	\$	22,490
509	4" Topsoil		4,133	sy	\$	5.00	\$	20,664
609	4' Concrete Sidewalk		6,920	sf	\$	5.00	\$	34,600
701	Turn Lanes and Median Openings		625	sy	\$	44.00	\$	27,514
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	409,796
Maio	or Construction Component Allowa	inces:						
waje	Item Description	Notes			Allo	wance		Item Cost
	Prep ROW					3%	\$	12,294
	Traffic Control	Construction Phase	Traffic Control			3%	\$	12,294
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	16,392
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	122,939
	Illumination					11%	\$	46,146
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	24,588
	Sewer	Minor Adjustments				4%	\$	16,392
	Establish Turf / Erosion Control					3%	\$	12,294
	Basic Landscaping					3%	\$	12,294
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other: Railroad Crossing (1/2) \$12				\$125,000	\$	125,000	
Allowance Subtotal:							\$	400,632
								040.400
Paving and Allowance Subtotal: Construction Contingency: 15%							<b>810,428</b> 102,814	
		Constru						•
Construction Cost TOTAL:						\$	914,000	

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	914,000		
Engineering/Survey/Testing:		20%	\$	182,800		
Mobilization		5%	\$	45,700		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	91,400		
Impact Fee Project Cost TOTAL:				1,234,000		

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Sycamore School Rd. (1)
Limits:
Impact Fee Class:
Ultimate Class:

Description:
Project No.
This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Project No.
This project No.
This project No.
This project No.
This project No.

Out-lane divided major arterial.

Length (If): 1,025 Service Area(s): Y

Special Drainage Structures

Roa	adway Construction Cost Pr	ojection					
No.	No. Item Description		Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation		4,669	су	\$	10.50	\$ 49,029
209	6" Lime Stabilization (with Lime @	32#/sy)	7,061	sy	\$	3.00	\$ 21,183
309	11" Concrete Pavement		6,606	sy	\$	44.00	\$ 290,644
409	6" Curb & Gutter		4,100	lf	\$	6.50	\$ 26,650
509	4" Topsoil		4,897	sy	\$	5.00	\$ 24,486
609	4' Concrete Sidewalk		8,200	sf	\$	5.00	\$ 41,000
701	01 Turn Lanes and Median Openings		741	sy	\$	44.00	\$ 32,604
		P	aving Consti	ruction (	Cost S	Subtotal:	\$ 485,597
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			Alle	owance	Item Cost
	Prep ROW					3%	\$ 14,568
	Traffic Control	Construction Phase Traffic Control			3%	\$ 14,568	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes				4%	\$ 19,424
	Roadway Drainage	Standard Internal Sy				30%	\$ 145,679
	Illumination					11%	\$ 54,682

$\checkmark$	Water	Minor Adjustments	6%	\$ 29,136
$\checkmark$	Sewer	Minor Adjustments	4%	\$ 19,424
$\checkmark$	Establish Turf / Erosion Control		3%	\$ 14,568
$\checkmark$	Basic Landscaping		3%	\$ 14,568
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:		\$0	\$ -
		Allowa	nce Subtotal:	\$ 326,616
İ				
		Paving and Allowa	nce Subtotal:	\$ 812,212
		Construction Contingency:	15%	\$ 121,832
		Construction C	ost TOTAL:	\$ 935.000

None Anticipated

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	935,000		
Engineering/Survey/Testing:		20%	\$	187,000		
Mobilization		5%	\$	46,750		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	93,500		
Impact Fee Project Cost TOTAL:				1,262,000		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Y-6

Name: Sycamore School Rd. (2) This project consists of the

Limits: Future SH 121 to Summer Creek Dr. construction of two additional through Impact Fee Class: P6D (1/3) Ianes within the existing median.

Ultimate Class: Principal Arterial

Length (If): 1,760 Service Area(s): Y

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
114	Unclassified Street Excavation	5,476	су	\$	10.50	\$	57,493
214	6" Lime Stabilization (with Lime @ 32#/sy)	5,280	sy	\$	3.00	\$	15,840
314	11" Concrete Pavement	4,889	sy	\$	44.00	\$	215,111
414	6" Curb & Gutter	3,520	lf	\$	6.50	\$	22,880
514	4" Topsoil	5,476	sy	\$	5.00	\$	27,378
614	4' Concrete Sidewalk	0	sf	\$	5.00	\$	-
701	Turn Lanes and Median Openings	1,272	sy	\$	44.00	\$	55,983
	Paying Construction Cost Subtotal: \$						394 685

Paving Construction Cost Subtotal: \$ 394,685

Majo	or Construction Component Allow	ances:	_				
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	11,841		
	Traffic Control	Construction Phase Traffic Control	3%	\$	11,841		
	Pavement Markings/Markers		3%	\$	11,841		
	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		3%	\$	11,841		
	Basic Landscaping		3%	\$	11,841		
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
	Other:		\$0	\$	-		
		Allowa	nce Subtotal:	\$	59,203		
	Paving and Allowance Subtotal:						
	Construction Contingency: 15%						
		Construction C	ost TOTAL:	\$	522,000		

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	522,000		
Engineering/Survey/Testing:		20%	\$	104,400		
Mobilization		5%	\$	26,100		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	No ROW Acquisition Costs included	0%	\$	-		
	\$	653,000				

**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.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Ass	sociates, Inc.
updated:	10/2/2012

<b>Project Informat</b>	ion:	Description:	Project No.	Y-7		
Name:	Sycamore School Rd. (3)	This completed project consisted of the				
Limits:	Summer Creek Dr. to Creek Meadow Dr.	Or. construction of a four-lane divided major arteria				
Impact Fee Class:	MA4D	This City contribution to this project was a				
Ultimate Class:	Major Arterial	combination of Y-7 a	nd Y-27. The tota	al City		
Length (If):	640	contribution was \$72	25.995. \$130.679	(18%) was		
Service Area(s):	Υ	included for this project.				

Impact Fee Project Cost Summary				
Item Description	Notes:	Allowance		Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$	130,679
	Impact Fee Project Cost TOTAL:			

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	Y-8			
Name:	Risinger Rd. (1)	This project consists of the widening of an existing					
Limits:	ncrete facility int	to a four-lane					
Impact Fee Class:	MA4D-B (1/2)	divided major arterial.	•				
Ultimate Class:	Major Arterial	•					
Length (If):	1,495						
Service Area(s):	Υ						

No.	No.   Item Description   Quantity   Unit   Unit Pric			it Price		Item Cost		
111	Unclassified Street Excavation		3,488	су	\$	10.50	\$	36,628
211	6" Lime Stabilization (with Lime @ 3	2#/sy)	5,149	sy	\$	3.00	\$	15,448
311	11" Concrete Pavement		4,817	sy	\$	44.00	\$	211,958
411	6" Curb & Gutter		4,485	lf	\$	6.50	\$	29,153
511	4" Topsoil		5,399	sy	\$	5.00	\$	26,993
611	4' Concrete Sidewalk		5,980	sf	\$	5.00	\$	29,900
701	Turn Lanes and Median Openings		1,081	sy	\$	44.00	\$	47,553
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$	397,633
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	11,929
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%	\$	11,929
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	15,905
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%		119,290
	Illumination					11%	\$	44,776
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		23,858
	Sewer	Minor Adjustments				4%		15,905
	Establish Turf / Erosion Control					3%		11,929
	Basic Landscaping					3%	\$	11,929
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
	Allowance Subtotal:						\$	267,451
			Paving and					665,083
		Constru	uction Conti			15%	-	99,762
	Construction Cost TOTAL:						\$	765,000

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	765,000					
Engineering/Survey/Testing:		20%	\$	153,000					
Mobilization		5%	\$	38,250					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	76,500					
	\$	1,033,000							

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Y-9
Name: Risinger Rd. (2) This project consists of the

Limits: Poynter St. to existing Risinger Rd. Dead End cons

construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 2,055 Service Area(s): Y

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation	9,362	су	\$	10.50	\$	98,298
209	6" Lime Stabilization (with Lime @ 32#/sy)	14,157	sy	\$	3.00	\$	42,470
309	11" Concrete Pavement	13,243	sy	\$	44.00	\$	582,707
409	6" Curb & Gutter	8,220	lf	\$	6.50	\$	53,430
509	4" Topsoil	9,818	sy	\$	5.00	\$	49,092
609	4' Concrete Sidewalk	16,440	sf	\$	5.00	\$	82,200
701	Turn Lanes and Median Openings	1,486	sy	\$	44.00	\$	65,366
	Paving Construction Cost Subtotal:						973,562

Major Construction Component Allowances:									
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	29,207				
	Traffic Control	None Anticipated	0%	\$	-				
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	38,942				
	Roadway Drainage	Standard Internal System	30%	\$	292,069				
	Illumination		11%	\$	109,630				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
	Water	Minor Adjustments	6%	\$	58,414				
	Sewer	Minor Adjustments	4%	\$	38,942				
	Establish Turf / Erosion Control		3%	\$	29,207				
	Basic Landscaping		3%	\$	29,207				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:								
		Allowa	ınce Subtotal:	\$	625,618				
	Paving and Allowance Subtotal:								
		Construction Contingency:	15%	\$	239,877				
		Construction C	ost TOTAL:	\$	1,840,000				

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	1,840,000					
Engineering/Survey/Testing:		20%	\$	368,000					
Mobilization		5%	\$	92,000					
Previous City contribution			\$	-					
Other	CFA# 2003043		\$	(134,295)					
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	368,000					
	\$	2,534,000							

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Risinger Rd. (3)

Limits:

Existinger Rd. Dead End to FM 731

Description:

Project No. Y-10

This project consists of the reconstruction of an existing two-lane

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial

Length (If): 2,375 Service Area(s): Y reconstruction of an existing two-lane undivided asphalt facility into a four-

lane divided major arterial.

No.	No. Item Description Quantity Unit			Un	it Price		Item Cost	
109	Unclassified Street Excavation		10,819	су	\$	10.50	\$	113,604
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	16,361	sy	\$	3.00	\$	49,083
309	11" Concrete Pavement		15,306	sy	\$	44.00	\$	673,444
409	6" Curb & Gutter		9,500	lf	\$	6.50	\$	61,750
509	4" Topsoil		11,347	sy	\$	5.00	\$	56,736
609	4' Concrete Sidewalk		19,000	sf	\$	5.00	\$	95,000
701	Turn Lanes and Median Openings		1,717	sy	\$	44.00	\$	75,545
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	1,125,163
Majo	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
√.	Prep ROW					3%		33,755
√,	Traffic Control	Construction Phase	Traffic Control			3%		33,755
√,	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		45,007
√,	Roadway Drainage	Standard Internal Sys	stem			30%	-	337,549
	Illumination					11%	\$	126,702
l .	Special Drainage Structures	None Anticipated			\$	-	\$	-
√.	Water	Minor Adjustments				6%		67,510
√.	Sewer	Minor Adjustments				4%		45,007
√,	Establish Turf / Erosion Control					3%		33,755
√	Basic Landscaping					3%		33,755
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
√	√ Other: Railroad Crossing \$250,000				_	250,000		
Allowance Subtotal:							\$	1,006,793
		_	Paving an					2,131,956
		Constru	uction Conti			15%	-	282,293
		Construction Cost TOTAL:						2,415,000

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	2,415,000					
Engineering/Survey/Testing:		20%	\$	483,000					
Mobilization		5%	\$	120,750					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	241,500					
	\$	3,260,000							

**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.

# City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	ion:	Description:	Project No.	Y-11			
Name:	McPherson Blvd. (1)	This project consisted of the construction of a for lane divided major arterial. This City's anticipated					
Limits:	FM 1902 to future SH 121						
Impact Fee Class:	MA4D	contribution to this project is \$1,134,475.					
Ultimate Class:	Major Arterial						
Length (If):	5,700						
Service Area(s):	Υ						

Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 1,134,475
	\$ 1,134,475		

**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.

# City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	Y-12			
Name:	McPherson Blvd. (2) This completed project consisted of the						
Limits:	Summer Creek Dr. to Willow Branch Wa	Summer Creek Dr. to Willow Branch Way construction of a four-lane divided major arter					
Impact Fee Class:	MA4D-B (1/2)	This City contribution to this project was a					
Ultimate Class:	Major Arterial	combination of Y-29 and Y-12. The total City					
Length (If):	2,250	contribution was \$4	I.840.719. \$1.887.8	880 (39%) was			
Service Area(s):	Υ	included for this pr		, ,			

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 1,887,880
	\$ 1,887,880		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10/2/2012 updated:

**Item Cost** 

**Project Information:** Y-13 Description: Project No.

Name: McPherson Blvd. (3) This project consists of the construction of a new

Quantity

Unit

Limits: Cleburne Rd. to E City Limits four-lane divided major arterial.

Impact Fee Class: MA4D-B **Ultimate Class:** Major Arterial Length (If): 2,870 Service Area(s):

No. Item Description

109	Unclassified Street Excavation		13,074	су	\$	10.50	\$	137,282
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	19,771	sy	\$	3.00	\$	59,313
309	11" Concrete Pavement		18,496	sy	\$	44.00	\$	813,804
409	6" Curb & Gutter		11,480	lf	\$	6.50	\$	74,620
509	4" Topsoil		13,712	sy	\$	5.00	\$	68,561
609	4' Concrete Sidewalk		22,960	sf	\$	5.00	\$	114,800
701	Turn Lanes and Median Openings		2,075	sy	\$	44.00	\$	91,290
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	1,359,670
Majo	or Construction Component Allowa							
	Item Description	Notes			Al	lowance		Item Cost
	Prep ROW					3%		40,790
١,	Traffic Control	None Anticipated				0%	-	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		54,387
√,	Roadway Drainage	Standard Internal Sy	stem			30%	-	407,901
$\sqrt{}$	Illumination					11%	\$	153,109
V	Special Drainage Structures	Minor Stream Crossi	ing		\$	250,000	\$	250,000
√,	Water	Minor Adjustments				6%	\$	81,580
√,	Sewer	Minor Adjustments				4%		54,387
√,	Establish Turf / Erosion Control					3%	\$	40,790
√,	Basic Landscaping					3%	\$	40,790
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					\$0	\$	-
Allowance Subtotal:								1,273,734
Paving and Allowance Subtotal:								2,633,405
	Construction Contingency: 15%							395,011 <b>3,029,000</b>
	Construction Cost TOTAL:							

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	3,029,000					
Engineering/Survey/Testing:		20%	\$	605,800					
Mobilization		5%	\$	151,450					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	605,800					
	\$	4,392,000							

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. Y-14	
Name:	Stewart Feltz Rd. (1)		This project consists of the	
Limits:	Future Brewer Blvd. to Stewart Feltz Ro	d. SB Bend	reconstruction of an existing two-lane	е
Impact Fee Class:	M4U		undivided asphalt facility into a four-	
Ultimate Class:	Minor Arterial		lane undivided minor arterial.	
Length (If):	2,105			
Service Area(s):	V			

	Item Description	•	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation		6,783	су	\$	10.50	\$ 71,219
206	6" Lime Stabilization (with Lime @ 32#/sy) 13,332 sy			\$	3.00	\$ 39,995	
306	9" Concrete Pavement		12,864	sy	\$	36.00	\$ 463,100
406	6" Curb & Gutter		4,210	lf	\$	6.50	\$ 27,365
506	4" Topsoil		3,508	sy	\$	5.00	\$ 17,542
606	4' Concrete Sidewalk		16,840	sf	\$	5.00	\$ 84,200
701	Turn Lanes and Median Openings		0				
		Pa	ving Consti	ruction (	Cost S	Subtotal:	\$ 703,421
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			Allo	owance	Item Cost
	Prep ROW					3%	\$ 21,103
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 21,103
	Pavement Markings/Markers					2%	\$ 15,100
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 211,026
	Illumination					11%	\$ 79,210
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 42,205
	Sewer	Minor Adjustments				4%	28,137
	Establish Turf / Erosion Control					3%	21,103
	Basic Landscaping					3%	\$ 21,103
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	-
				Allowa	ince S	Subtotal:	\$ 460,089
			Paving and	d Allows	nce S	Subtotal	\$ 1,163,510
		Constru	action Conti			15%	174,527

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,339,000				
Engineering/Survey/Testing:		20%	\$	267,800				
Mobilization		5%	\$	66,950				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	133,900				
	Impact Fee Project C	ost TOTAL:	\$	1,808,000				

**Construction Cost TOTAL:** 

**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.

1,339,000

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Y-15
Name: Stewart Feltz Rd. (2) This project consists of the

Name: Stewart Feltz Rd. (2) This project consists of the Limits: Stewart Feltz Rd. SB Bend to Sunflower Ridge Rd. construction of a new four-lane

Impact Fee Class: M4U undivided minor arterial.

Ultimate Class: Minor Arterial Length (If): 1,420 Service Area(s): Y

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	4,576	су	\$	10.50	\$ 48,043
206	6" Lime Stabilization (with Lime @ 32#/sy)	8,993	sy	\$	3.00	\$ 26,980
306	9" Concrete Pavement	8,678	sy	\$	36.00	\$ 312,400
406	6" Curb & Gutter	2,840	lf	\$	6.50	\$ 18,460
506	4" Topsoil	2,367	sy	\$	5.00	\$ 11,833
606	4' Concrete Sidewalk	11,360	sf	\$	5.00	\$ 56,800
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 474,517

Majo	or Construction Component Allow	ances:	_		
	Item Description	Notes	Allowance		Item Cost
	Prep ROW		3%	\$	14,236
	Traffic Control	None Anticipated	0%	\$	-
$\checkmark$	Pavement Markings/Markers		2%	\$	10,186
	Roadway Drainage	Standard Internal System	30%	\$	142,355
	Illumination		11%	\$	53,434
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	Minor Adjustments	6%	\$	28,471
	Sewer	Minor Adjustments	4%	\$	18,981
	Establish Turf / Erosion Control		3%	\$	14,236
$\checkmark$	Basic Landscaping		3%	\$	14,236
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
	Other:				
		Allowa	nce Subtotal:	\$	296,134
		Paving and Allowa		-	770,650
		Construction Contingency:			115,598
		Construction C	ost TOTAL:	\$	887,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	887,000				
Engineering/Survey/Testing:		20%	\$	177,400				
Mobilization		5%	\$	44,350				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	177,400				
	Impact Fee Proje	ct Cost TOTAL:	\$	1,286,000				

**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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Y-16
Name: Sunflower Ridge Rd.

Limits: Existing Sunflower Ridge Rd. Dead End to future Summer Creek Dr.

Impact Fee Class: M4U (1/2)

This project consists of the widening of a two-lane
Ultimate Class: Minor Arterial

Concrete facility into a four-lane undivided minor

Length (If): 1,435 arterial.

Service Area(s): Y

Intersections (Signal, Roundabout, etc.)

Other:

1706	dway Construction Cost Pro	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
104	Unclassified Street Excavation		2,312	су	\$	10.50	\$	24,275
204	6" Lime Stabilization (with Lime @ 3	32#/sy)	4,544	sy	\$	3.00	\$	13,633
304	9" Concrete Pavement		4,385	sy	\$	36.00	\$	157,850
404	6" Curb & Gutter		1,435	lf	\$	6.50	\$	9,328
504	4" Topsoil		1,196	sy	\$	5.00	\$	5,979
604	4' Concrete Sidewalk		5,740	sf	\$	5.00	\$	28,700
701	Turn Lanes and Median Openings		0					
		Pa	aving Constr	uction (	Cost S	Subtotal:	\$	239,765
Majo	Major Construction Component Allowances:							
							_	
	Item Description	Notes			Allo	owance		Item Cost
1	Item Description Prep ROW				Allo	owance 3%	\$	Item Cost 7,193
√ √	· · · · · · · · · · · · · · · · · · ·		Traffic Control		Allo		-	
√ √ √	Prep ROW	Notes	Traffic Control		Allo	3%	\$	7,193
√ √ √ √	Prep ROW Traffic Control	Notes			Allo	3% 3%	\$	7,193 7,193
Į,	Prep ROW Traffic Control Pavement Markings/Markers	Notes  Construction Phase			Allo	3% 3% 2%	\$ \$ \$	7,193 7,193 5,147
√ √ √	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage	Notes  Construction Phase			Allo	3% 3% 2% 30%	\$ \$ \$	7,193 7,193 5,147 71,929
√ √ √	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination	Notes  Construction Phase  Standard Internal Sy				3% 3% 2% 30% 11%	\$ \$ \$ \$ \$	7,193 7,193 5,147 71,929
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures	Notes  Construction Phase  Standard Internal Sy  None Anticipated				3% 3% 2% 30% 11%	\$ \$ \$ \$ \$ \$ \$	7,193 7,193 5,147 71,929 26,999
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination Special Drainage Structures Water	Notes  Construction Phase  Standard Internal Sy  None Anticipated Minor Adjustments				3% 3% 2% 30% 11% - 6%	\$ \$ \$ \$ \$ \$ \$ \$	7,193 7,193 5,147 71,929 26,999 - 14,386

				~	000,000
	Co	nstruction Contingency:	15%	\$	59,488
		Construction C	ost TOTAL:	\$	457,000
Impact Fee Project Cost S	ummary				
Item Description	Notes:		Allowance		Item Cost

None Anticipated

itelli bescription	110163.	Allowance	item cost
Construction:		-	\$ 457,000
Engineering/Survey/Testing:		20%	\$ 91,400
Mobilization		5%	\$ 22,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 45,700
	Impact Fee Proj	ect Cost TOTAL:	\$ 617,000

**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.

\$

156,824

396.588

\$0

\$0

Allowance Subtotal:

Paying and Allowance Subtotal: \$

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Item Cost

Project Information: Description: Project No. Y-17
Name: Cleburne Crowley Rd. (1) This project consists of the

Limits: W City Limits to Stewart Feltz Rd. EB Curve constr

construction of a new four-lane divided

Quantity Unit Unit Price

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial Length (If): 4,880

Service Area(s): Y

No. Item Description

NO.	item Description		Quantity	Ullit	5	IL FIICE		item Cost
109	Unclassified Street Excavation		22,231	су	\$	10.50	\$	233,427
209	6" Lime Stabilization (with Lime @ 32	2#/sy)	33,618	sy	\$	3.00	\$	100,853
309	11" Concrete Pavement	31,449	sy	\$	44.00	\$	1,383,751	
409	6" Curb & Gutter		19,520	lf	\$	6.50	\$	126,880
509	4" Topsoil		23,316	sy	\$	5.00	\$	116,578
609	4' Concrete Sidewalk		39,040	sf	\$	5.00	\$	195,200
701	Turn Lanes and Median Openings		3,528	sy	\$	44.00	\$	155,225
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$	2,311,914
Maj	or Construction Component Allowa							
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%	\$	69,357
	Traffic Control	None Anticipated				0%	-	-
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		92,477
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem			30%	-	693,574
	Illumination					11%	\$	260,338
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		138,715
$\sqrt{}$	Sewer	Minor Adjustments				4%		92,477
$\sqrt{}$	Establish Turf / Erosion Control					3%	-	69,357
$\sqrt{}$	Basic Landscaping					3%	\$	69,357
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					\$0	\$	-
				Allowa	nce S	Subtotal:	\$	1,635,653
			Paving an					3,947,566
		Constru	uction Conti			15%		592,135
			Construc	ction C	ost 7	ΓΟΤAL:	\$	4,540,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	4,540,000				
Engineering/Survey/Testing:		20%	\$	908,000				
Mobilization		5%	\$	227,000				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	908,000				
	Impact Fee Project Cost TOTAL:							

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Project Information:** Description: Project No. Y-18 Name: Cleburne Crowley Rd. (2) This project consists of the Limits: Stewart Feltz Rd. EB Curve to 460' W. of Rancho Viejo reconstruction of an existing Impact Fee Class: MA4D-B two-lane undivided asphalt **Ultimate Class:** Major Arterial facility into a new four-lane Length (If): 2,650 divided major arterial. Service Area(s):

	dway Construction Cost Pro	gection					
No.	Item Description		Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation		12,072	су	\$	10.50	\$ 126,758
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	18,256	sy	\$	3.00	\$ 54,767
309	11" Concrete Pavement		17,078	sy	\$	44.00	\$ 751,422
409	6" Curb & Gutter		10,600	lf	\$	6.50	\$ 68,900
509	4" Topsoil		12,661	sy	\$	5.00	\$ 63,306
609	4' Concrete Sidewalk		21,200	sf	\$	5.00	\$ 106,000
701	Turn Lanes and Median Openings		1,916	sy	\$	44.00	\$ 84,292
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$ 1,255,445
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			Alle	owance	Item Cost
<b>V</b>	Prep ROW					3%	\$ 37,663
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 37,663
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 50,218
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 376,633
	Illumination					11%	\$ 141,372
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	75,327
	Sewer	Minor Adjustments				4%	50,218
	Establish Turf / Erosion Control					3%	\$ 37,663
	Basic Landscaping					3%	\$ 37,663
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile		:	\$150,000	\$ 150,000
	Other:	\$0			\$ -		
				Allowa	nce S	Subtotal:	\$ 994,421
			Paving and			Subtotal:	\$ 2,249,866
		Constru	uction Conti	ngency:		15%	\$ 337,480
I			Construc	ction C	ost 7	ΓΟΤΑL:	\$ 2,588,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,588,000			
Engineering/Survey/Testing:		20%	\$	517,600			
Mobilization		5%	\$	129,400			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	258,800			
	\$	3,494,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Cleburne Rd.

Description:

Project No.

Y-19

This project consists of the

Name: Cleburne Rd. This project consists of the Cleburne Crowley Rd. to Summer Creek Dr. Construction of a new four-lane

Impact Fee Class: M4U
Ultimate Class: Minor Arterial
Length (If): 2,100
Service Area(s): Y

undivided minor arterial.

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	6,767	су	\$	10.50	\$ 71,050
206	6" Lime Stabilization (with Lime @ 32#/sy)	13,300	sy	\$	3.00	\$ 39,900
306	9" Concrete Pavement	12,833	sy	\$	36.00	\$ 462,000
406	6" Curb & Gutter	4,200	lf	\$	6.50	\$ 27,300
506	4" Topsoil	3,500	sy	\$	5.00	\$ 17,500
606	4' Concrete Sidewalk	16,800	sf	\$	5.00	\$ 84,000
701	Turn Lanes and Median Openings	0				
		Paving Constr	ruction (	`net	Subtotal	\$ 701 750

Paving Construction Cost Subtotal: \$ 701,750

Majo	or Construction Component Allow	ances:	_			
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	21,053	
	Traffic Control	None Anticipated	0%	\$	-	
	Pavement Markings/Markers		2%	\$	15,064	
	Roadway Drainage	Standard Internal System	30%	\$	210,525	
$\checkmark$	Illumination		11%	\$	79,022	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	42,105	
	Sewer	Minor Adjustments	4%	\$	28,070	
	Establish Turf / Erosion Control		3%	\$	21,053	
	Basic Landscaping		3%	\$	21,053	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:		\$0	\$	-	
		Allowa	nce Subtotal:	\$	437,944	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	170,954	
		Construction C	ost TOTAL:	\$	1,311,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,311,000			
Engineering/Survey/Testing:		20%	\$	262,200			
Mobilization		5%	\$	65,550			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	262,200			
	\$	1,901,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

2,611,000

Project Information: Description: Project No. Y-20

Name: Bryant Irvin (1) This project consists of the

Limits: Dirks Rd. to 2,755' S. of Dirks Rd. construction of a new four-lane divided

Quantity

Unit

Construction Cost TOTAL: \$

**Unit Price** 

Impact Fee Class: MA4D-B major arterial.
Ultimate Class: Major Arterial

Length (If): 2,755 Service Area(s): Y, ETJ

No. Item Description

109	Unclassified Street Excavation		12,551	су	\$	10.50	\$ 131,781
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	18,979	sy	\$	3.00	\$ 56,937
309	11" Concrete Pavement		17,754	sy	\$	44.00	\$ 781,196
409	6" Curb & Gutter		11,020	lf	\$	6.50	\$ 71,630
509	4" Topsoil		13,163	sy	\$	5.00	\$ 65,814
609	4' Concrete Sidewalk		22,040	sf	\$	5.00	\$ 110,200
701	Turn Lanes and Median Openings		1,992	sy	\$	44.00	\$ 87,632
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 1,305,189
Majo	or Construction Component Allowa						
	Item Description	Notes			Allo	owance	Item Cost
	Prep ROW					3%	\$ 39,156
l ,	Traffic Control	None Anticipated				0%	\$ -
$\sqrt{}$	Pavement Markings/Markers					2%	\$ 28,018
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 391,557
	Illumination					11%	\$ 146,974
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 78,311
	Sewer	Minor Adjustments				4%	\$ 52,208
	Establish Turf / Erosion Control					3%	\$ 39,156
	Basic Landscaping					3%	\$ 39,156
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile		:	\$150,000	\$ 150,000
	Other:					\$0	\$ -
	Allowance Subtotal:					\$ 964,535	
			Paving an				2,269,724
		Constru	action Conti	ngency:		15%	\$ 340,459

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,611,000			
Engineering/Survey/Testing:		20%	\$	522,200			
Mobilization		5%	\$	130,550			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	522,200			
	\$	3,786,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. Y-21
Name: Bryant Irvin (2) This project consists of the

Limits: 2,755' S. of Dirks Rd. to future Columbus Trl. constru

construction of a new four-lane divided

**Unit Price** 

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 4,025 Service Area(s): Y

No. Item Description

109	Unclassified Street Excavation		18,336	су	\$	10.50	\$ 192,529
209	6" Lime Stabilization (with Lime @ 3	2#/sy)	27,728	sy	\$	3.00	\$ 83,183
309	11" Concrete Pavement		25,939	sy	\$	44.00	\$ 1,141,311
409	6" Curb & Gutter		16,100	lf	\$	6.50	\$ 104,650
509	4" Topsoil		19,231	sy	\$	5.00	\$ 96,153
	4' Concrete Sidewalk		32,200	sf	\$	5.00	\$ 161,000
701	Turn Lanes and Median Openings		2,910	sy	\$	44.00	\$ 128,029
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 1,906,855
Majo	or Construction Component Allowa	ınces:					
	Item Description	Notes			Alle	owance	Item Cost
	Prep ROW					3%	\$ 57,206
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers					2%	40,934
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 572,056
	Illumination					11%	\$ 214,726
	Special Drainage Structures	None Anticipated			\$	-	\$ -
$\checkmark$	Water	Minor Adjustments				6%	\$ 114,411
$\checkmark$	Sewer	Minor Adjustments				4%	\$ 76,274
$\checkmark$	Establish Turf / Erosion Control					3%	\$ 57,206
$\checkmark$	Basic Landscaping					3%	\$ 57,206
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$ 150,000
	Other:					\$0	\$ -
Allowance Subtotal:						\$ 1,340,019	
			Paving an				3,246,874
		Constru	uction Conti			15%	487,031
			Constru	ction C	ost 7	TOTAL:	\$ 3,734,000

Quantity

Unit

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,734,000			
Engineering/Survey/Testing:		20%	\$	746,800			
Mobilization		5%	\$	186,700			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	746,800			
	Impact Fee Project Cost TOTAL:						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

179,186

134,390

134,390

450,000

Project Information:

Description: Project No. Y-22

Name: Bryant Irvin (3)

This project consists of the

Name: Bryant Irvin (3) This project consists of the Limits: Future Columbus Trl. to S City Limits construction of a new four-lane divided

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial
Length (If): 9,670
Service Area(s): Y

Ro	adway Construction Cost Pr							
No.	Item Description		Quantity	Unit	Uı	nit Price		Item Cost
108	Unclassified Street Excavation		42,978	су	\$	10.50	\$	451,267
208	6" Lime Stabilization (with Lime @	32#/sy)	64,467	sy	\$	3.00	\$	193,400
308	11" Concrete Pavement		60,169	sy	\$	44.00	\$	2,647,431
408	6" Curb & Gutter		38,680	lf	\$	6.50	\$	251,420
508	4" Topsoil		48,350	sy	\$	5.00	\$	241,750
608	4' Concrete Sidewalk		77,360	sf	\$	5.00	\$	386,800
701	Turn Lanes and Median Openings		6,991	sy	\$	44.00	\$	307,587
	Paving Construction (							
		Pa	aving Constr	uction (	Cost	Subtotal:	\$	4,479,654
		Pa	aving Constr	uction (	Cost	Subtotal:	\$	4,479,654
Majo	or Construction Component Allow		aving Constr	ruction (	Cost	Subtotal:	\$	4,479,654
Majo	or Construction Component Allow Item Description		aving Constr	uction (		Subtotal:	\$	4,479,654 Item Cost
Majo	·	vances:	aving Constr	ruction (				, ,
	Item Description	vances:	aving Constr	ruction (		lowance	\$	Item Cost
	Item Description Prep ROW	vances: Notes	aving Constr	ruction (		lowance	\$	Item Cost
1	Item Description Prep ROW Traffic Control	vances: Notes		ruction (		lowance 3% 0%	\$ \$	Item Cost 134,390
√ √	Prep ROW Traffic Control Pavement Markings/Markers	Notes  None Anticipated		ruction (		3% 0% 2%	\$ \$ \$	Item Cost 134,390 - 96,164
\ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage	Vances: Notes  None Anticipated	stem	ruction (		3% 0% 2% 30%	\$ \$ \$	134,390 - 96,164 1,343,896
\ \ \ \	Item Description  Prep ROW  Traffic Control  Pavement Markings/Markers  Roadway Drainage  Illumination	Notes  None Anticipated  Standard Internal Sy	stem	ruction (	All	lowance 3% 0% 2% 30% 11%	\$ \$ \$ \$ \$	134,390 - 96,164 1,343,896 504,442

Other:		\$0	\$ -
	Allowa	nce Subtotal:	\$ 3,745,637
	Paving and Allowa	nce Subtotal:	\$ 8,225,291
	Construction Contingency:	15%	\$ 1,233,794
	Construction C	ost TOTAL:	\$ 9,460,000

Assume Improvement per Half Mile

Minor Adjustments

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	9,460,000			
Engineering/Survey/Testing:		20%	\$	1,892,000			
Mobilization		5%	\$	473,000			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,892,000			
	\$	13,717,000					

**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.

Sewer

Establish Turf / Erosion Control

Intersections (Signal, Roundabout, etc.)

Basic Landscaping

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. Y-23
Name: Brewer Blvd. (1) This project consists of the

Limits: Columbus Trl. to 155' N. of Bindweed St. construction of a new four-lane divided

Quantity

Unit

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial 2,740 Service Area(s): Y

No. Item Description

109	09 Unclassified Street Excavation 12,482 cy			\$	10.50	\$	131,063	
209	6" Lime Stabilization (with Lime @ 32	2#/sy)	18,876	sy	\$	3.00	\$	56,627
309	11" Concrete Pavement		17,658	sy	\$	44.00	\$	776,942
409	6" Curb & Gutter		10,960	lf	\$	6.50	\$	71,240
509	4" Topsoil		13,091	sy	\$	5.00	\$	65,456
609	4' Concrete Sidewalk		21,920	sf	\$	5.00	\$	109,600
701	Turn Lanes and Median Openings		1,981	sy	\$	44.00	\$	87,155
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	1,298,083
Majo	or Construction Component Allowa	nces:						
	Item Description	Notes			A	lowance		Item Cost
V	Prep ROW					3%	\$	38,942
1 .	Traffic Control	None Anticipated				0%		-
√.	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%		51,923
V	Roadway Drainage	Standard Internal Sys	stem			30%	-	389,425
√.	Illumination					11%	\$	146,174
√.	Special Drainage Structures	Two Minor Stream C	rossings		\$	500,000	\$	500,000
√.	Water	Minor Adjustments				6%		77,885
	Sewer	Minor Adjustments				4%		51,923
	Establish Turf / Erosion Control					3%	-	38,942
V	Basic Landscaping					3%		38,942
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					\$0	\$	-
Allowance Subtotal:							\$	1,484,157
Paving and Allowance Subtotal:								2,782,240
Construction Contingency: 15%								417,336
			Constru	ction C	ost	TOTAL:	\$	3,200,000

Impact Fee Project Cost Summary						
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	3,200,000		
Engineering/Survey/Testing:		20%	\$	640,000		
Mobilization		5%	\$	160,000		
Previous City contribution			\$	-		
Other	CFA# 2007017		\$	(75,252)		
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	640,000		
Impact Fee Project Cost TOTAL:				4,565,000		

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Y-24

Name: Brewer Blvd. (2) This project consists of the

Name: Brewer Blvd. (2) This project consists of the Limits: 125' S. of Risinger Rd. to McPherson Blvd. construction of a new four-lane

Impact Fee Class: M4U-B undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 3,215 Service Area(s): Y

Roa	Roadway Construction Cost Projection								
No.	Item Description	Quantity	Unit	Unit Price			Item Cost		
107	Unclassified Street Excavation	10,717	су	\$	10.50	\$	112,525		
207	6" Lime Stabilization (with Lime @ 32#/sy)	21,076	sy	\$	3.00	\$	63,228		
307	9" Concrete Pavement	20,362	sy	\$	36.00	\$	733,020		
407	6" Curb & Gutter	6,430	lf	\$	6.50	\$	41,795		
507	4" Topsoil	4,644	sy	\$	5.00	\$	23,219		
607	4' Concrete Sidewalk	25,720	sf	\$	5.00	\$	128,600		
701	Turn Lanes and Median Openings	0							

Paving Construction Cost Subtotal: \$ 1,102,388

Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	33,072		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	44,096		
	Roadway Drainage	Standard Internal System	30%	\$	330,716		
	Illumination		11%	\$	124,137		
	Special Drainage Structures	None Anticipated	\$ -	\$	-		
	Water	Minor Adjustments	6%	\$	66,143		
	Sewer	Minor Adjustments	4%	\$	44,096		
	Establish Turf / Erosion Control		3%	\$	33,072		
	Basic Landscaping		3%	\$	33,072		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:		\$0	\$	-		
		Allowa	nce Subtotal:	\$	858,402		
	Paving and Allowance Subtotal:						
	Construction Contingency: 15%						
		Construction C	ost TOTAL:	\$	2,255,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,255,000			
Engineering/Survey/Testing:		20%	\$	451,000			
Mobilization		5%	\$	112,750			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	451,000			
Impact Fee Project Cost TOTAL:				3,270,000			

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Y-25

Name: Brewer Blvd. (3) This project consists of the construction of a new

Limits: McPherson Blvd. to SW City Limits four-lane undivided minor arterial.

Impact Fee Class: M4U
Ultimate Class: Minor Arterial
Length (If): 8,210
Service Area(s): Y

Roa	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Unit Price		Unit Price Ite	
106	Unclassified Street Excavation	26,454	су	\$	10.50	\$	277,772
206	6" Lime Stabilization (with Lime @ 32#/sy)	51,997	sy	\$	3.00	\$	155,990
306	9" Concrete Pavement	50,172	sy	\$	36.00	\$	1,806,200
406	6" Curb & Gutter	16,420	lf	\$	6.50	\$	106,730
506	4" Topsoil	13,683	sy	\$	5.00	\$	68,417
606	4' Concrete Sidewalk	65,680	sf	\$	5.00	\$	328,400
701	Turn Lanes and Median Openings	0					

Paving Construction Cost Subtotal: \$ 2,743,508

Major Construction Component Allow	vances:		
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 82,305
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers		2%	\$ 58,895
√ Roadway Drainage	Standard Internal System	30%	\$ 823,053
√ Illumination		11%	\$ 308,939
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$ 250,000
√ Water	Minor Adjustments	6%	\$ 164,611
√ Sewer	Minor Adjustments	4%	\$ 109,740
√ Establish Turf / Erosion Control		3%	\$ 82,305
√ Basic Landscaping		3%	\$ 82,305
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 450,000
Other:		\$0	\$ -
	Allow	ance Subtotal:	\$ 2,412,153
	\$ 5,155,661		
	\$ 773,349		
	Construction C	ost TOTAL:	\$ 5,930,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	5,930,000			
Engineering/Survey/Testing:		20%	\$	1,186,000			
Mobilization		5%	\$	296,500			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,186,000			
Impact Fee Project Cost TOTAL:				8,599,000			

**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.

# City of Fort Worth 2013 Transportation Impact Fee Study

Conceptual Level Project Cost Projection

Kimley-Horn and Ass	sociates, Inc.
updated:	10/2/2012

<b>Project Informat</b>	ion:	Description:	Project No.	Y-26			
Name:	Granbury Rd. (2)		This completed project				
Limits:	350' S. of Alta Mesa Blvd. to 630' N. of Ap	palachian Way	consisted of the construction of				
Impact Fee Class:	MA4D		a four-lane divided major				
Ultimate Class:	Major Arterial		arterial. This City	contribution			
Length (If):	1,215		to this project wa				
Service Area(s):	Υ			, , , , , , , , , , , , , , , , , , , ,			

Impact Fee Project Cost Summary Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 1,648,291
	\$ 1,648,291		

**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.

## City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	ion:	Description:	Project No.	Y-27			
Name: Limits: Impact Fee Class: Ultimate Class: Length (If):	Granbury/Summer Creek Dr. Summer Meadows to Columbus Trail MA4D Major Arterial 2,830	This completed proconstruction of a f This City contribut combination of Y-7	oject consisted of to our-lane divided milion to this project vorant	the ajor arterial. was a al City			
Service Area(s):	Y Y	contribution was \$725,995. \$595,316 (82%) was included for this project. The total City contributes \$725,995					

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 595,316
	Impact Fee Project C	ost TOTAL:	\$ 595,316

**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.

Service Area(s):

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Project No. Y-28 Description: Name: Summer Creek Dr. (1) This project consists of the widening of an existing Limits: Summer Park to Risinger Rd. two-lane undivided concrete facility into a four-lane Impact Fee Class: MA4D-B (1/2) divided major arterial. **Ultimate Class:** Major Arterial Length (If): 2,110

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation	4,923	су	\$	10.50	\$	51,695
211	6" Lime Stabilization (with Lime @ 32#/sy)	7,268	sy	\$	3.00	\$	21,803
311	11" Concrete Pavement	6,799	sy	\$	44.00	\$	299,151
411	6" Curb & Gutter	6,330	lf	\$	6.50	\$	41,145
511	4" Topsoil	7,619	sy	\$	5.00	\$	38,097
611	4' Concrete Sidewalk	8,440	sf	\$	5.00	\$	42,200
701	Turn Lanes and Median Openings	1,525	sy	\$	44.00	\$	67,116
						•	504.007

Paving Construction Cost Subtotal: \$ 561,207

Major Construction Component Allov	vances:		
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 16,836
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 16,836
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 22,448
√ Roadway Drainage	Standard Internal System	30%	\$ 168,362
$\sqrt{}$ Illumination		11%	\$ 63,196
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 33,672
√ Sewer	Minor Adjustments	4%	\$ 22,448
√ Establish Turf / Erosion Control		3%	\$ 16,836
√ Basic Landscaping		3%	\$ 16,836
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
Other:		\$0	\$ -
	Allowa	nce Subtotal:	\$ 377,472
	Paving and Allowa	nce Subtotal:	\$ 938,679
	Construction Contingency:	15%	\$ 140,802
	Construction C	ost TOTAL:	\$ 1,080,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,080,000
Engineering/Survey/Testing:		20%	\$ 216,000
Mobilization		5%	\$ 54,000
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 108,000
	Impact Fee Projec	t Cost TOTAL:	\$ 1,458,000

**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.

## City of Fort Worth 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information:		Description:	Project No.	Y-29				
Name:	Summer Creek Dr. (2)	This completed project consisted of the						
Limits:	Risinger Rd. to McPherson Blvd.	construction of a f	our-lane divided ma	ajor arterial.				
Impact Fee Class:	MA4D-B	The total City contribution was \$4,840,719.						
<b>Ultimate Class:</b>	Major Arterial	\$2,952,839 (61%) was included for this project.						
Length (If):	3,495	, , , (,						
Service Area(s):	Υ							

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing		-	\$ 2,952,839
	Impact Fee Project C	ost TOTAL:	\$ 2,952,839

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Item Cost** 

Project Information:

Name:

Limits:
Impact Fee Class:
Ultimate Class:

Name:

Description:

Description:

Project No.

This project consists of the widening of a two-lane undivided concrete facility into a four-lane divided major arterial.

Quantity

Unit

**Unit Price** 

Length (If): 2,350
Service Area(s): Y

No. Item Description

111	Unclassified Street Excavation		5,483	су	\$	10.50	\$	57,575
211	6" Lime Stabilization (with Lime @ 3	ilization (with Lime @ 32#/sy) 8,094 sy			\$	3.00	\$	24,283
311	11" Concrete Pavement		7,572	sy	\$	44.00	\$	333,178
411	6" Curb & Gutter		7,050	lf	\$	6.50	\$	45,825
511	4" Topsoil		8,486	sy	\$	5.00	\$	42,431
611	4' Concrete Sidewalk		9,400	sf	\$	5.00	\$	47,000
701	Turn Lanes and Median Openings		1,699	sy	\$	44.00	\$	74,750
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	625,041
Majo	or Construction Component Allow							
	Item Description	Notes			Alle	owance		Item Cost
1	Prep ROW					3%		18,751
$\sqrt{}$	Traffic Control	Construction Phase	Traffic Control			3%		18,751
$\sqrt{}$	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%		25,002
$\sqrt{}$	Roadway Drainage	Standard Internal Sy	stem			30%		187,512
	Illumination					11%	\$	70,384
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	37,502
	Sewer	Minor Adjustments				4%	\$	25,002
	Establish Turf / Erosion Control					3%		18,751
	Basic Landscaping					3%	\$	18,751
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
	Allowance Subtotal:							420,407
							\$	
	Paving and Allowance Subtotal:							1,045,449
		Constru	uction Conti	-		15%		156,817
			Constru	ction C	ost 7	ΓΟTAL:	\$	1,203,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,203,000
Engineering/Survey/Testing:		20%	\$ 240,600
Mobilization		5%	\$ 60,150
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 120,300
	Impact Fee Project (	Cost TOTAL:	\$ 1,624,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Description: Y-31 Project No. Name: Summer Creek Dr. (4) This project consists of the Limits: Sunflower Ridge Rd. to 640' N. of Cleburne Crowley Rd. construction of a new four-lane Impact Fee Class: MA4D-B divided major arterial. **Ultimate Class:** Major Arterial

Length (If): 4,305 Service Area(s):

	Item Description	,	Quantity	Unit	Ur	nit Price	Item Cost
109	Unclassified Street Excavation		19,612	су	\$	10.50	\$ 205,923
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	29,657	sy	\$	3.00	\$ 88,970
309	11" Concrete Pavement		27,743	sy	\$	44.00	\$ 1,220,707
409	6" Curb & Gutter		17,220	lf	\$	6.50	\$ 111,930
509	4" Topsoil		20,568	sy	\$	5.00	\$ 102,842
609	4' Concrete Sidewalk		34,440	sf	\$	5.00	\$ 172,200
701	Turn Lanes and Median Openings		3,112	sy	\$	44.00	\$ 136,935
		Pa	aving Const	ruction (	Cost	Subtotal:	\$ 2,039,506
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			All	lowance	Item Cost
	Prep ROW					3%	\$ 61,185
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 81,580
	Roadway Drainage	Standard Internal Sy	stem			30%	\$ 611,852
√.	Illumination					11%	\$ 229,663
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$ 250,000
	Water	Minor Adjustments				6%	\$ 122,370
	Sewer	Minor Adjustments				4%	81,580
	Establish Turf / Erosion Control					3%	61,185
	Basic Landscaping					3%	61,185
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$ 150,000
	Other:						
Allowance Subtotal:						\$ 1,710,601	
			Paving an	d Allowa	nce	Subtotal:	\$ 3,750,107
		Constru	uction Conti	ngency:		15%	\$ 562,516
			Construc	ction C	ost	TOTAL:	\$ 4,313,000

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,313,000
Engineering/Survey/Testing:		20%	\$ 862,600
Mobilization		5%	\$ 215,650
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 862,600
	\$ 6,254,000		

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informa</b>	tion:	Description:	Project No.	Y-32
Name:	Summer Creek Dr. (5)		This project cons	ists of the
Limits:	Cleburne Crowley Rd. to future Clebur	ne Rd. Alignment	reconstruction of	an existing
Impact Fee Class:	MA4D-B		two-lane undivide	d asphalt
Ultimate Class:	Major Arterial		facility into a new	four-lane
Length (If):	385		divided major arte	
Service Area(s):	Υ			

	dway Construction Cost Pro	jection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		1,754	су	\$	10.50	\$	18,416
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	2,652	sy	\$	3.00	\$	7,957
309	11" Concrete Pavement		2,481	sy	\$	44.00	\$	109,169
409	6" Curb & Gutter		1,540	lf	\$	6.50	\$	10,010
509	4" Topsoil		1,839	sy	\$	5.00	\$	9,197
609	4' Concrete Sidewalk		3,080	sf	\$	5.00	\$	15,400
701	Turn Lanes and Median Openings		278	sy	\$	44.00	\$	12,246
		Pa	aving Constr	uction (	Cost	Subtotal:	\$	182,395
Mais					_		_	
Majo	or Construction Component Allows							lt O t
-	Item Description	Notes			All	owance	•	Item Cost
٧,	Prep ROW					3%		5,472
٧,	Traffic Control	Construction Phase				3%		5,472
٧,	Pavement Markings/Markers	Pavement Markings				4%	\$	7,296
٧,	Roadway Drainage	Standard Internal Sy	stem			30%	\$	54,718
√	Illumination				_	11%	\$	20,539
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
√,	Water	Minor Adjustments				6%		10,944
√,	Sewer	Minor Adjustments				4%	\$	7,296
√,	Establish Turf / Erosion Control					3%		5,472
	Basic Landscaping					3%	\$	5,472
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other: \$0					_	-	
	Allowance Subtotal:							122,680
			Paving and	d Allowa	nce	Subtotal:	\$	305,075
		Constru	uction Conti			15%	\$	45,761
	Construction Cost TOTAL:							351,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 351,000
Engineering/Survey/Testing:		20%	\$ 70,200
Mobilization		5%	\$ 17,550
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 35,100
	Impact Fee Project (	Cost TOTAL:	\$ 474,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

6,102,394

7,018,000

915,359

Project Information: Description: Project No. Y-33

Name: Summer Creek Dr. (6) This project consists of the

Name: Summer Creek Dr. (6) This project consists of the Limits: Existing Cleburne Rd. to SW City Limits construction of a new four-lane divided

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial
Length (If): 7,380
Service Area(s): Y

No. Item Description

	Rom Docompaion		quaritity	•				110111 0001
108	Unclassified Street Excavation		32,800	су	\$	10.50	\$	344,400
208	6" Lime Stabilization (with Lime @ 32	2#/sy)	49,200	sy	\$	3.00	\$	147,600
308	11" Concrete Pavement		45,920	sy	\$	44.00	\$	2,020,480
408	6" Curb & Gutter		29,520	lf	\$	6.50	\$	191,880
508	4" Topsoil		36,900	sy	\$	5.00	\$	184,500
608	4' Concrete Sidewalk		59,040	sf	\$	5.00	\$	295,200
701	Turn Lanes and Median Openings		5,335	sy	\$	44.00	\$	234,746
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	3,418,806
Majo	or Construction Component Allowa	nces:						
	Item Description	Notes			Al	lowance		Item Cost
1	Prep ROW					3%	\$	102,564
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers					2%	\$	73,391
$\sqrt{}$	Roadway Drainage	Standard Internal Sys	stem			30%	\$	1,025,642
	Illumination					11%	\$	384,982
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	205,128
	Sewer	Minor Adjustments				4%	\$	136,752
	Establish Turf / Erosion Control					3%	\$	102,564
	Basic Landscaping					3%		102,564
	Intersections (Signal, Roundabout, etc.)	Assume Improvemer	nt per Half Mile			\$150,000	\$	300,000
	Other:					\$0	_	-
	· ·						\$	2,683,588

Quantity Unit Unit Price

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 7,018,000
Engineering/Survey/Testing:		20%	\$ 1,403,600
Mobilization		5%	\$ 350,900
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,403,600
	Impact Fee Proj	ect Cost TOTAL:	\$ 10,176,000

**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.

\$

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10/2/2012 updated:

**Item Cost** 

499,000

65,053

**Project Information:** Project No. Y-34 Description: Name: Cleburne Rd. (1)

This project consists of the Limits: Future Summer Creek Dr. to existing Cleburne Rd. construction of a new four-lane

Impact Fee Class: M4U-B undivided minor arterial.

**Ultimate Class:** Minor Arterial

Length (If): 770 Service Area(s): Υ

No. Item Description

	·				_		_	
107	Unclassified Street Excavation		2,567	су	\$	10.50	\$	26,950
207	6" Lime Stabilization (with Lime @ 3	32#/sy)	5,048	sy	\$	3.00	\$	15,143
307	7 9" Concrete Pavement 4,877 sy				\$	36.00	\$	175,560
407	6" Curb & Gutter		1,540	lf	\$	6.50	\$	10,010
507	4" Topsoil		1,112	sy	\$	5.00	\$	5,561
607	4' Concrete Sidewalk		6,160	sf	\$	5.00	\$	30,800
701	Turn Lanes and Median Openings		0					
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	264,024
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			All	owance		Item Cost
V	Prep ROW					3%	\$	7,921
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	10,561
	Roadway Drainage	Standard Internal Sy	rstem			30%	\$	79,207
	Illumination					11%	\$	29,731
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	15,841
	Sewer	Minor Adjustments				4%	\$	10,561
	Establish Turf / Erosion Control					3%	\$	7,921
	Basic Landscaping					3%	\$	7,921
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0	\$	-
				Allowa	ınce :	Subtotal:	\$	169,664
			Paving an	d Allowa	nce :	Subtotal:	\$	433,688

Quantity

Unit

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 499,000
Engineering/Survey/Testing:		20%	\$ 99,800
Mobilization		5%	\$ 24,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 99,800
	Impact Fee Proje	ect Cost TOTAL:	\$ 724,000

Construction Contingency:

**Construction Cost TOTAL:** 

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\$

15%

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Informa	tion:	Description:	Project No.	Y-35
Name:	Cleburne Rd. (2)		This project cons	ists of the
Limits:	Existing Cleburne Rd. to future Cleburn	ne Rd. Alignment	reconstruction of	an existing
Impact Fee Class:	M4U-B		two-lane undivide	ed asphalt
Ultimate Class:	Minor Arterial		facility into a new	four-lane
Length (If):	1,355		undivided minor a	
Service Area(s):	Υ			

No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation		4,517	су	\$	10.50	\$	47,425
207	6" Lime Stabilization (with Lime @ 32	!#/sy)	8,883	sy	\$	3.00	\$	26,648
307	9" Concrete Pavement	8,582 sy				36.00	\$	308,940
407	6" Curb & Gutter		2,710	lf	\$	6.50	\$	17,615
507	4" Topsoil		1,957	sy	\$	5.00	\$	9,786
607	4' Concrete Sidewalk		10,840	sf	\$	5.00	\$	54,200
701	Turn Lanes and Median Openings		0					
		Pa	ving Const	ruction (	Cost S	Subtotal:	\$	464,614
							_	
Majo	or Construction Component Allowar							
	Item Description	Notes			Alle	owance		Item Cost
٧,	Prep ROW					3%		13,938
٧,	Traffic Control	Construction Phase				3%	-	13,938
1	Pavement Markings/Markers	Pavement Markings				4%	-	18,585
√,	Roadway Drainage	Standard Internal Sys	stem			30%		139,384
V	Illumination					11%	\$	52,319
,	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		27,877
	Sewer	Minor Adjustments				4%		18,585
$\sqrt{}$	Establish Turf / Erosion Control					3%		13,938
	Basic Landscaping					3%		13,938
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0		-
				Allowa	nce S	Subtotal:	\$	312,503
			D	.I AII		D l. 1 . 1 . 1	<u></u>	777 / / 0
		0 1	Paving and					777,118
		Constru	ection Conti			15%		116,568
	Construction Cost TOTAL:					\$	894,000	

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 894,000
Engineering/Survey/Testing:		20%	\$ 178,800
Mobilization		5%	\$ 44,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 89,400
	Impact Fee Project C	ost TOTAL:	\$ 1,207,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

 Project Information:
 Description:
 Project No.
 Y-36

 Name:
 Cleburne Rd. (3)
 This project consists of the construction of a new four-lane undivided minor arterial.

 Limits:
 Existing Cleburne Rd. to S City Limits

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial
Length (If): 1,855

Service Area(s):

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	6,183	су	\$	10.50	\$ 64,925
207	6" Lime Stabilization (with Lime @ 32#/sy)	12,161	sy	\$	3.00	\$ 36,482
307	9" Concrete Pavement	11,748	sy	\$	36.00	\$ 422,940
407	6" Curb & Gutter	3,710	lf	\$	6.50	\$ 24,115
507	4" Topsoil	2,679	sy	\$	5.00	\$ 13,397
607	4' Concrete Sidewalk	14,840	sf	\$	5.00	\$ 74,200
701	Turn Lanes and Median Openings	0				
	Pa	ving Constr	uction (	Cost	Subtotal:	\$ 636,059

Maio	or Construction Component Allow	ances:			
maj	Item Description	Notes	Allowance	П	Item Cost
V	Prep ROW		3%	\$	19,082
	Traffic Control	None Anticipated	0%	\$	-
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	25,442
	Roadway Drainage	Standard Internal System	30%	\$	190,818
	Illumination		11%	\$	71,625
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	Minor Adjustments	6%	\$	38,164
	Sewer	Minor Adjustments	4%	\$	25,442
	Establish Turf / Erosion Control		3%	\$	19,082
	Basic Landscaping		3%	\$	19,082
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
	Other:		\$0	\$	-
	·	Allowa	nce Subtotal:	\$	408,736
		Paving and Allowa			1,044,795
		Construction Contingency:			156,719
		Construction C	ost TOTAL:	\$	1,202,000

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,202,000
Engineering/Survey/Testing:		20%	\$ 240,400
Mobilization		5%	\$ 60,100
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 240,400
	Impact Fee Proje	ect Cost TOTAL:	\$ 1,743,000

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	Y-37
Name:	Hulen St. (1)		This project consists of the	widening of
Limits:	McPherson Blvd. to Carriage Crossing	Dr.	an existing two-lane undivid	led concrete
Impact Fee Class:	MA4D-B (1/2)		facility into a four-lane divide	ed major
Ultimate Class:	Major Arterial		arterial.	•
Length (If):	995			
Service Area(s)	V			

No.	p. Item Description Quantity   Unit   Unit Price					Item Cost		
111	Unclassified Street Excavation		2,322	су	\$	10.50	\$	24,378
211	6" Lime Stabilization (with Lime @ 3	2#/sy) 3,427 sy			\$	3.00	\$	10,282
311	11" Concrete Pavement	3,206 sy			\$	44.00	\$	141,069
411	6" Curb & Gutter		2,985	lf	\$	6.50	\$	19,403
511	4" Topsoil		3,593	sy	\$	5.00	\$	17,965
	4' Concrete Sidewalk		3,980	sf	\$	5.00	\$	19,900
701	Turn Lanes and Median Openings		719	sy	\$	44.00	\$	31,649
	•	Pa	aving Const	ruction (	Cost	Subtotal:	\$	264,645
Majo	or Construction Component Allowa	ances:						
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	7,939
	Traffic Control	Construction Phase	Traffic Control			3%	\$	7,939
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	10,586
	Roadway Drainage	Standard Internal Sy	stem			30%	\$	79,394
	Illumination					11%	\$	29,801
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	15,879
	Sewer	Minor Adjustments				4%	\$	10,586
	Establish Turf / Erosion Control					3%	\$	7,939
	Basic Landscaping					3%	\$	7,939
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:					\$0		-
Allowance Subtotal:							\$	178,002
Paving and Allowance Subtotal:								442,647
		Constru	uction Conti	-		15%	*	66,397
			Construc	ction C	ost <sup>-</sup>	TOTAL:	\$	510,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	510,000				
Engineering/Survey/Testing:		20%	\$	102,000				
Mobilization		5%	\$	25,500				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	51,000				
	\$	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.

No. Item Description

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. Y-38

Name: Hulen St. (2) This project consists of the construction of a new

Quantity

Unit

**Unit Price** 

Limits: Carriage Crossing Dr. to S City Limits four-lane major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 1,910
Service Area(s): Y

109	Unclassified Street Excavation		8,701	су	\$	10.50	\$	91,362
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	13,158	sy	\$	3.00	\$	39,473
309	11" Concrete Pavement		12,309	sy	\$	44.00	\$	541,591
409	09 6" Curb & Gutter 7,640			lf	\$	6.50	\$	49,660
509	4" Topsoil		9,126	sy	\$	5.00	\$	45,628
609	4' Concrete Sidewalk		15,280	sf	\$	5.00	\$	76,400
701	Turn Lanes and Median Openings		1,381	sy	\$	44.00	\$	60,754
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	904,868
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Allo	owance		Item Cost
	Prep ROW					3%	\$	27,146
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$	36,195
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	271,460
	Illumination					11%	\$	101,895
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		54,292
	Sewer	Minor Adjustments				4%		36,195
	Establish Turf / Erosion Control					3%		27,146
	Basic Landscaping					3%		27,146
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
					\$0		-	
Allowance Subtotal:							\$	581,475
Paving and Allowance Subtotal:								1,486,342
		Constru	uction Conti			15%	-	222,951 <b>1,710,000</b>
		Construction Cost TOTAL:						

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,710,000				
Engineering/Survey/Testing:		20%	\$	342,000				
Mobilization		5%	\$	85,500				
Previous City contribution			\$	-				
Other	Gas Royalties		\$	(2,000,000)				
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	342,000				
	Impact Fee Project C	ost TOTAL:	\$	480,000				

**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.

**Project Information:** 

Name:

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. 10/2/2012 updated:

Description: Project No. Y-39

Hulen St. (3) Limits: 325' N. of Rancho Verde Pkwy. To S. City Limits

Impact Fee Class: MA4D-B

**Ultimate Class:** Major Arterial

Length (If): 2,630 Service Area(s):

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-

lane divided major arterial.

	adway Construction Cost Pro		Quantity	Unit	Un	it Price		Item Cost
			,				4	
	Unclassified Street Excavation		11,981	су	\$	10.50	\$	125,802
209	6" Lime Stabilization (with Lime @ :	32#/sy)	18,118	sy	\$	3.00	\$	54,353
309	11" Concrete Pavement		16,949	sy	\$	44.00	\$	745,751
409	6" Curb & Gutter		10,520	lf	\$	6.50	\$	68,380
509	4" Topsoil		12,566	sy	\$	5.00	\$	62,828
609	4' Concrete Sidewalk		21,040	sf	\$	5.00	\$	105,200
701	Turn Lanes and Median Openings		1,901	sy	\$	44.00	\$	83,656
		Pa	aving Consti	ruction (	Cost	Subtotal:	\$	1,245,970
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			All	owance		Item Cost
	Prep ROW					3%	\$	37,379
	Traffic Control	Construction Phase	Traffic Control			3%	\$	37,379
1							<u> </u>	

	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 37,379
	Traffic Control	Construction Phase Traffic Control	3%	\$ 37,379
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 49,839
	Roadway Drainage	Standard Internal System	30%	\$ 373,791
	Illumination		11%	\$ 140,305
	Special Drainage Structures	None Anticipated	\$ -	\$ -
	Water	Minor Adjustments	6%	\$ 74,758
	Sewer	Minor Adjustments	4%	\$ 49,839
	Establish Turf / Erosion Control		3%	\$ 37,379
	Basic Landscaping		3%	\$ 37,379
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:			
		Allowa	nce Subtotal:	\$ 838,048
	\$ 2,084,018			
	\$ 312,603			
		Construction Contingency: Construction C		\$ 2,397,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	2,397,000				
Engineering/Survey/Testing:		20%	\$	479,400				
Mobilization		5%	\$	119,850				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	239,700				
	\$	3,236,000						

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No. Y-40
Name:	McCart Ave. (1)		This project consists of the widening of
Limits:	585' S. of Risinger Rd. to 135' S. of Ca	yman Dr.	an existing two-lane undivided concrete
Impact Fee Class: MA4D (1/2)			facility into a four-lane divided major
Ultimate Class:	Major Arterial		arterial.
Length (If):	1,615		
Service Area(s):	Υ		

	No.   Item Description   Quantity   Unit   Unit Price					Item Cost		
110	Unclassified Street Excavation		3,768	су	\$	10.50	\$	39,568
210	6" Lime Stabilization (with Lime @ 3	ne @ 32#/sy) 5,383 sy			\$	3.00	\$	16,150
310	11" Concrete Pavement		5,024	sy	\$	44.00	\$	221,076
410	6" Curb & Gutter		4,845	lf	\$	6.50	\$	31,493
	4" Topsoil		6,191	sy	\$	5.00	\$	30,954
610	4' Concrete Sidewalk		6,460	sf	\$	5.00	\$	32,300
701	Turn Lanes and Median Openings		1,168	sy	\$	44.00	\$	51,370
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	422,910
Majo	or Construction Component Allows							
	Item Description	Notes			All	owance		Item Cost
$\sqrt{}$	Prep ROW					3%		12,687
√,	Traffic Control	Construction Phase	Traffic Control			3%	-	12,687
√,	Pavement Markings/Markers					2%		9,079
√,	Roadway Drainage	Standard Internal Sys	stem			30%		126,873
√,	Illumination					11%	-	47,623
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%		25,375
	Sewer	Minor Adjustments				4%	\$	16,916
	Establish Turf / Erosion Control					3%	\$	12,687
	Basic Landscaping					3%		12,687
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0		-
Allowance Subtotal:							\$	526,615
		_	Paving an					949,525
		Constru	uction Conti			15%	-	142,429
	Construction Cost TOTAL:						\$	1,092,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	1,092,000				
Engineering/Survey/Testing:		20%	\$	218,400				
Mobilization		5%	\$	54,600				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	Existing Alignment	10%	\$	109,200				
	\$	1,474,000						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Item Cost** 

Project Information: Description: Project No. Y-41
Name: McCart Ave. (2) This project consists of the

Limits: 135' S of Cayman Dr. to future McPherson Blvd. construction of a new four-lane divided

Quantity

Unit

**Unit Price** 

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial
Length (If): 3,030
Service Area(s): Y

No. Item Description

108	Unclassified Street Excavation		13,467	су	\$	10.50	\$	141,400
208	6" Lime Stabilization (with Lime @ 3	2#/sy)	20,200	sy	\$	3.00	\$	60,600
	11" Concrete Pavement		18,853	sy	\$	44.00	\$	829,547
408	6" Curb & Gutter		12,120	lf	\$	6.50	\$	78,780
508	4" Topsoil		15,150	sy	\$	5.00	\$	75,750
608	4' Concrete Sidewalk		24,240	sf	\$	5.00	\$	121,200
701	Turn Lanes and Median Openings		2,190	sy	\$	44.00	\$	96,379
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$	1,403,656
Majo	or Construction Component Allowa	inces:						
	Item Description	Notes			Alle	owance		Item Cost
	Prep ROW					3%		42,110
	Traffic Control	None Anticipated				0%		-
	Pavement Markings/Markers					2%		30,132
	Roadway Drainage	Standard Internal Sys	stem			30%		421,097
	Illumination					11%	\$	158,062
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%		84,219
	Sewer	Minor Adjustments				4%		56,146
	Establish Turf / Erosion Control					3%	\$	42,110
	Basic Landscaping					3%	\$	42,110
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:						\$ <b>\$</b>	-
Allowance Subtotal:								1,025,985
Paving and Allowance Subtotal:								2,429,641
Construction Contingency: 15%								364,446
			Constru	ction C	ost T	TOTAL:	\$	2,795,000

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	2,795,000				
Engineering/Survey/Testing:		20%	\$	559,000				
Mobilization		5%	\$	139,750				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	559,000				
	\$	4,053,000						

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Y-42

Name: McCart Ave. (3)

Limits: McPherson Blvd. to 145' N of Twinleaf Dr.

Impact Fee Class: M4U

This project consists of the construction of a new four-lane undivided minor arterial.

Impact Fee Class: M4U
Ultimate Class: Minor Arterial
Length (If): 3,160

Length (If): 3,1 Service Area(s): Y

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
106	Unclassified Street Excavation	10,182	су	\$	10.50	\$ 106,913
206	6" Lime Stabilization (with Lime @ 32#/sy)	20,013	sy	\$	3.00	\$ 60,040
306	9" Concrete Pavement	19,311	sy	\$	36.00	\$ 695,200
406	6" Curb & Gutter	6,320	lf	\$	6.50	\$ 41,080
506	4" Topsoil	5,267	sy	\$	5.00	\$ 26,333
606	4' Concrete Sidewalk	25,280	sf	\$	5.00	\$ 126,400
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 1,055,967

Majo	Major Construction Component Allowances:									
	Item Description	Notes	Allowance		Item Cost					
	Prep ROW		3%	\$	31,679					
	Traffic Control	None Anticipated	0%	\$	-					
	Pavement Markings/Markers		2%	\$	22,668					
	Roadway Drainage	Standard Internal System	30%	\$	316,790					
	Illumination		11%	\$	118,910					
	Special Drainage Structures	Two Minor Stream Crossings	\$ 500,000	\$	500,000					
	Water	Minor Adjustments	6%	\$	63,358					
	Sewer	Minor Adjustments	4%	\$	42,239					
	Establish Turf / Erosion Control		3%	\$	31,679					
	Basic Landscaping		3%	\$	31,679					
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000					
	Other:		\$0	\$	-					
		Allowa	nce Subtotal:	\$	1,309,002					
		Paving and Allowa		\$	2,364,968					
		Construction Contingency:	15%	\$	354,745					
		Construction C	ost TOTAL:	\$	2,720,000					

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	2,720,000					
Engineering/Survey/Testing:		20%	\$	544,000					
Mobilization		6%	\$	163,200					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	New Roadway Alignment	30%	\$	302,400					
	\$	3,730,000							

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information:

Name:

McCart Ave. (4)

Limits:

MoCart Ave. (4)

Name:

MoCart Ave. (4)

This project consists of the widening of an existing two-lane undivided concrete facility into a four-lane divided minor arterial.

Ultimate Class: Minor Arterial
Length (If): 2,300
Service Area(s): Y

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
104	Unclassified Street Excavation	3,706	су	\$	10.50	\$ 38,908
204	6" Lime Stabilization (with Lime @ 32#/sy)	7,283	sy	\$	3.00	\$ 21,850
304	9" Concrete Pavement	7,028	sy	\$	36.00	\$ 253,000
404	6" Curb & Gutter	2,300	lf	\$	6.50	\$ 14,950
504	4" Topsoil	1,917	sy	\$	5.00	\$ 9,583
604	4' Concrete Sidewalk	9,200	sf	\$	5.00	\$ 46,000
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 384,292

Major Construction Component Allow	vances.					
Item Description	Notes	Allowance	П	Item Cost		
√ Prep ROW		3%	\$	11,529		
√ Traffic Control	Construction Phase Traffic Control	3%	\$	11,529		
√ Pavement Markings/Markers		2%	\$	8,250		
√ Roadway Drainage	Standard Internal System	30%	\$	115,288		
√ Illumination		11%	\$	43,274		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
√ Water	Minor Adjustments	6%	\$	23,058		
√ Sewer	Minor Adjustments	4%	\$	15,372		
√ Establish Turf / Erosion Control		3%		11,529		
√ Basic Landscaping		3%	\$	11,529		
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
Other:		\$0	\$	-		
	Allowa	ance Subtotal:	\$	251,355		
	\$	635,647				
	Construction Contingency: 15%					
	Construction C	ost TOTAL:	\$	731,000		

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	731,000					
Engineering/Survey/Testing:		20%	\$	146,200					
Mobilization		5%	\$	36,550					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	73,100					
	\$	987,000							

**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.

#### City of Fort Worth - 2013 Transportation Impact Fee Study

Transportation Improvements Plan for Transportation Impact Fees Appendix A - Summary of Conceptual Level Project Cost Projections

#### Service Area Z

<u>#</u>	<u>Class</u>	<u>Project</u>	<u>Limits</u>		Cost
Z-1, X-7	MA4D	Everman Pkwy. (1)	Butterwick St. to Cameron Hill	\$	4,769,000
Z-2, X-8	MA4D (1/2)	Everman Pkwy. (2)	Cameron Hill to 320' E. of Sheridan Rd.	\$	1,026,000
Z-3	MA4D	Shelby Rd.	Race St. to Rendon / Forest Hill Dr.	\$	6,747,000
Z-4	MA4D-B	Risinger Rd. (4)	FM 731 to IH-35W SBFR	\$	11,925,000
Z-5	MA4D-B	Risinger Rd. (5)	IH-35W SBFR to Old Burleson Rd.	\$	1,821,000
Z-6	MA4D-B	Risinger Rd. (6)	Old Burleson Rd. to Oak Grove Rd.	\$	6,047,000
Z-7	MA4D-B	Oak Grove Shelby Rd.	Oak Grove Rd. to Race St.	\$	7,005,000
Z-8	MA4D-B	Oak Grove Shelby Rd./Risinger Rd.	Race St. to Rendon / Forest Hill Dr.	\$	7,076,000
Z-9	MA4D-B	McPherson Blvd. (4)	FM 731 to UP RR	\$	9,779,000
Z-10	MA4D-B (1/2)	McPherson Blvd. (5)	Bilsky Bay Dr. to IH-35W SBFR	\$	336,000
Z-11	MA4D-B (1/2)	McPherson Blvd. (6)	IH-35W SBFR to IH-35W NBFR	\$	3,591,000
Z-12	MA4D-B	McPherson Blvd. (7)	IH-35W NBFR to Stone (Oak Grove)	\$	5,255,000
Z-13	MA4D	McPherson Blvd. (8)	Stone (Oak Grove) to Forest Hill - Everman Rd.	\$	9,501,000
Z-14	M3U-B	McAlister Rd. (1)	50' W of UP RR to IH-35W SBFR	\$	921,761
Z-15	M4U-B	McAlister Rd. (2)	IH-35W SBFR to IH-35W NBFR	\$	2,716,000
Z-16	M4U-B	McAlister Rd. (3)	IH-35W NBFR to Stone Rd.	\$	1,198,000
Z-17	MA4D	Alsbury Blvd.	70' E of IH-35W NBFR to Stone Rd.	\$	1,256,000
Z-18	MA4D-B	Hemphill St. (5)	Future Everman Pkwy. to Risinger Rd.	\$	6,540,000
Z-19	MA4D-B	Hemphill St. (6)	1670' S of Risinger Rd. to 580' N of Brasenose St.	\$	12,541,000
Z-20	MA4D-B (1/2)	Hemphill St. (7)	580' N of Brasenose St. to Nuffield Ln.	\$	822,000
Z-21	M4U-B (1/2)	Hemphill St. (8)	FM 1187 EB to McAlister Rd.	\$	593,000
Z-22	M4U-B	Hemphill St. (9)	McAlister Rd. to S. City Limits	\$	1,006,000
Z-23	MA4D-B	Oak Grove Rd. (4)	Forum Way to Future Risinger Rd./Oak Grove Shelby	\$	2,369,000
Z-24	MA4D-B	Oak Grove Rd. (5)	Oak Grove Shelby to Oak Grove Rd. (Realigned)	\$	1,607,000
Z-25	MA4D-B	Oak Grove Rd. (6)	Oak Grove Rd. (Realigned) to Buffalo Springs Dr.	\$	4,514,000
Z-26	MA4D-B	Oak Grove Rd. (7)	Buffalo Springs Dr. to McPherson Blvd.	\$	844,000
Z-27	MA4D-B	Oak Grove Rd. (8)	McPherson Blvd. to Oak Grove E.	\$	3,212,000
Z-28	MA4D-B	Stone Rd. (1)	Oak Grove E. to Nelson Pl.	\$	3,641,000
Z-29	MA4D-B	Stone Rd. (2)	Nelson Pl. to FM 1187	\$	6,844,000
Z-30	M4U-B	Stone Rd. (3)	FM 1187 to Alsbury Dr.	\$	5,799,000
Z-31	M4U-B	Stone Rd. (4)	Alsbury Blvd. to Abner Lee Dr.	\$	3,146,000
Z-32	M4U-B	Stone Rd. (5)	Abner Lee Dr. to S City Limits	\$	560,000
Z-33	MA4D	Wichita St. (3)	Shelby Rd. to Risinger Rd.	\$	3,727,000
Z-34	MA4D (1/2)	Wichita St. (4)	Race St. to 790' W. of Race St.	\$	532,000
Z-35	MA4D	Wichita St. (5)	790' W of Race St. to McPherson Blvd.	\$	6,057,000
Z-36	MA4D	Oak Grove Rd. (9)	McPherson Blvd. to Nicole Way	\$	7,041,000
Z-37	MA4D-B	Oak Grove Rd. (10)	Nelson Pl. to 115' N. of Doe Meadow Dr.	\$	1,403,000
Z-38	M4U-B	Oak Grove Rd. (11)	FM 1187 to Burleson Retta Rd.	\$	8,836,000
Z-39	M4U-B	Wildcat Way	Burleson Retta Rd. to S. City Limits	\$	3,416,000
Z-40	MA4D	Rendon / Forest-Hill (1)	640' N of Chambers Creek Dr. to Shelby Rd.	\$	3,270,000
Z-41	MA4D	Rendon / Forest-Hill (2)	Shelby Rd. to 80' S of future Risinger Rd.	\$	3,409,000
			· ·	TOTAL \$	172,698,761

**NOTE:** 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.

<sup>\*</sup>Total may be higher than presented in Table 4 (10-Year Transportation Improvements Plan with Conceptual Level Cost Projections) because the cost of some projects are shared between service areas.

No. Item Description

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. updated: 10/2/2012

**Item Cost** 

<b>Project Informat</b>	tion:	Description:	Project No.	Z-1, X-7				
Name:	Everman Pkwy. (1)	This project consists of the construction of a new						
Limits:	Butterwick St. to Cameron Hill	six-lane divided principal arterial. This will provide						
Impact Fee Class:	MA4D	a connection between the two existing segments of Everman Pkwy.						
Ultimate Class:	Major Arterial							
Length (If):	2,980	,						
Service Area(s):	Z, X							

Quantity Unit Unit Price

Qualitity	Oilit					
13,244	су	\$	10.50	\$	139,067	
19,867	sy	\$	3.00	\$	59,600	
18,542	sy	\$	44.00	\$	815,858	
11,920	lf	\$	6.50	\$	77,480	
14,900	sy	\$	5.00	\$	74,500	
23,840	sf	\$	5.00	\$	119,200	
2,154	sy	\$	44.00	\$	94,789	
aving Const	ruction (	Cost	Subtotal:	\$	1,380,493	
	-					
		All	owance		Item Cost	
			3%	\$	41,415	
			0%	\$	-	
			2%	\$	29,635	
ystem			30%	\$	414,148	
			11%	\$	155,454	
Creek		\$	250,000	\$	250,000	
			6%	\$	82,830	
			4%	\$	55,220	
				\$	41,415	
				\$	41,415	
ent per Half Mile					150,000	
					250,000 <b>1,511,530</b>	
Allowance Subtotal:						
Construction Cost TOTAL:						
	13,244 19,867 18,542 11,920 14,900 23,840 2,154  aving Constr	13,244 cy 19,867 sy 18,542 sy 11,920 lf 14,900 sy 23,840 sf 2,154 sy  aving Construction C	13,244	13,244   Cy   \$ 10.50     19,867   Sy   \$ 3.00     18,542   Sy   \$ 44.00     11,920   If   \$ 6.50     14,900   Sy   \$ 5.00     23,840   Sf   \$ 5.00     2,154   Sy   \$ 44.00     aving Construction Cost Subtotal:    Allowance	13,244   cy   \$ 10.50   \$ 19,867   sy   \$ 3.00   \$ 18,542   sy   \$ 44.00   \$ 11,920   If   \$ 6.50   \$ 14,900   sy   \$ 5.00   \$ 23,840   sf   \$ 5.00   \$ 2,154   sy   \$ 44.00   \$   \$ aving Construction Cost Subtotal: \$	

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	3,289,000				
Engineering/Survey/Testing:		20%	\$	657,800				
Mobilization		5%	\$	164,450				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	657,800				
	\$	4,769,000						

**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.

**Project Information:** 

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc. 10/2/2012 updated:

**Item Cost** 

Description: Project No. Z-2, X-8

Quantity Unit Unit Price

Name: Everman Pkwy. (2) This project consists of the widening of

Limits: Cameron Hill to 320' E. of Sheridan Rd. an existing two-lane undivided concrete

Impact Fee Class: MA4D (1/2) facility to a six-lane divided principal **Ultimate Class:** 

Major Arterial arterial.

Length (If): 1,525 Service Area(s): Z, X

No. Item Description

140.	item bescription		Quantity	Oill	5	IL I IICC		item cost
110	Unclassified Street Excavation		3,558	су	\$	10.50	\$	37,363
	0 6" Lime Stabilization (with Lime @ 32#/sy) 5,083 sy			\$	3.00	\$	15,250	
310	11" Concrete Pavement		4,744	sy	\$	44.00	\$	208,756
410	6" Curb & Gutter		4,575	lf	\$	6.50	\$	29,738
510	4" Topsoil		5,846	sy	\$	5.00	\$	29,229
610	4' Concrete Sidewalk		6,100	sf	\$	5.00	\$	30,500
701	Turn Lanes and Median Openings		1,102	sy	\$	44.00	\$	48,508
		Pa	aving Consti	ruction (	Cost S	Subtotal:	\$	399,342
Majo	or Construction Component Allowa	nces:						
	Item Description	Notes			Allo	owance		Item Cost
1	Prep ROW					3%	\$	11,980
	Traffic Control	Construction Phase	Traffic Control			3%	\$	11,980
	Pavement Markings/Markers					2%	\$	8,573
	Roadway Drainage	Standard Internal Sy	stem			30%		119,803
	Illumination					11%	\$	44,969
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	23,961
	Sewer	Minor Adjustments				4%		15,974
	Establish Turf / Erosion Control					3%		11,980
	Basic Landscaping					3%		11,980
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0		-
	Other:					\$0	\$ <b>\$</b>	-
Allowance Subtotal:								261,200
Paving and Allowance Subtotal:								660,542
		Constru	uction Conti			15%		99,081
	Construction Cost TOTAL:							760,000

Impact Fee Project Cost Summary									
Item Description	Notes:	Allowance		Item Cost					
Construction:		-	\$	760,000					
Engineering/Survey/Testing:		20%	\$	152,000					
Mobilization		5%	\$	38,000					
Previous City contribution			\$	-					
Other									
ROW/Easement Acquisition:	Existing Alignment	10%	\$	76,000					
	\$	1,026,000							

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

updated: 10/2/2012

**Item Cost** 

Project Information:

Name:
Limits:
Impact Fee Class:
Ultimate Class:
Ultimate Class:

Project No.

Description:
Project No.

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Quantity

Unit

Length (If): 5,280 Service Area(s): Z

No. Item Description

108	Unclassified Street Excavation		23,467	су	\$	10.50	\$ 246,400
208	6" Lime Stabilization (with Lime @ 3	32#/sy)	35,200	sy	\$	3.00	\$ 105,600
308	11" Concrete Pavement		32,853	sy	\$	44.00	\$ 1,445,547
408	6" Curb & Gutter		21,120	lf	\$	6.50	\$ 137,280
508	4" Topsoil		26,400	sy	\$	5.00	\$ 132,000
608	4' Concrete Sidewalk		42,240	sf	\$	5.00	\$ 211,200
701	Turn Lanes and Median Openings		3,817	sy	\$	44.00	\$ 167,948
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 2,445,975
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			Allo	owance	Item Cost
	Prep ROW					3%	\$ 73,379
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 73,379
	Pavement Markings/Markers					2%	\$ 52,507
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 733,792
	Illumination					11%	\$ 275,435
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 146,758
	Sewer	Minor Adjustments				4%	\$ 97,839
	Establish Turf / Erosion Control					3%	\$ 73,379
	Basic Landscaping					3%	\$ 73,379
	Intersections (Signal, Roundabout, etc.)	Assume Improvemer	nt per Half Mile			\$150,000	\$ 300,000
	Other:					\$0	\$ -
	Allowance Subtotal:					\$ 1,899,849	
Paving and Allowance Subtotal:						4,345,824	
		Constru	uction Conti			15%	 651,874
			Constru	ction C	ost 1	TOTAL:	\$ 4,998,000

Impact Fee Project Cost Sun	nmary					
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	4,998,000		
Engineering/Survey/Testing:		20%	\$	999,600		
Mobilization		5%	\$	249,900		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	499,800		
	Impact Fee Project Cost TOTAL:					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:Description:Project No.Z-4Name:Risinger Rd. (4)This project consists of the reconstruction of an Eximits:Limits:FM 731 to IH-35W SBFRexisting two-lane undivided asphalt facility into a four-lane divided major arterial.

Ultimate Class: Major Arterial Rength (If): 8,535
Service Area(s): Z

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	38,882	су	\$	10.50	\$ 408,258
209	6" Lime Stabilization (with Lime @ 32#/sy)	58,797	sy	\$	3.00	\$ 176,390
309	11" Concrete Pavement	55,003	sy	\$	44.00	\$ 2,420,147
409	6" Curb & Gutter	34,140	lf	\$	6.50	\$ 221,910
509	4" Topsoil	40,778	sy	\$	5.00	\$ 203,892
609	4' Concrete Sidewalk	68,280	sf	\$	5.00	\$ 341,400
701	Turn Lanes and Median Openings	6,170	sy	\$	44.00	\$ 271,484
	Pr	aving Constr	ruction (	Cost S	Subtotal:	\$ 4.043.480

Major Construction Component Allo	wances.		
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 121,304
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 121,304
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 161,739
√ Roadway Drainage	Standard Internal System	30%	\$ 1,213,044
$\sqrt{}$ Illumination		11%	\$ 455,325
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$ 250,000
√ Water	Minor Adjustments	6%	\$ 242,609
√ Sewer	Minor Adjustments	4%	\$ 161,739
√ Establish Turf / Erosion Control		3%	\$ 121,304
√ Basic Landscaping		3%	\$ 121,304
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 450,000
√ Other:	Railroad Crossing	\$250,000	\$ 250,000
	Allow	ance Subtotal:	\$ 3,669,674
	Paving and Allow		
	\$ 7,713,154		
	\$ 1,119,473		
	Construction C	Cost TOTAL:	\$ 8,833,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	8,833,000			
Engineering/Survey/Testing:		20%	\$	1,766,600			
Mobilization		5%	\$	441,650			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	883,300			
	Impact Fee Project	et Cost TOTAL:	\$	11,925,000			

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Risinger Rd. (5)

Limits:

IH-35W SBFR to Old Burleson Rd.

Impact Fee Class:
Ultimate Class:

Wayper Arterial

Description:

Project No.

Z-5

This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Length (If): 1,480 Service Area(s): Z

	Item Description	•	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation		6,742	су	\$	10.50	\$	70,793
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	10,196	sy	\$	3.00	\$	30,587
309	11" Concrete Pavement		9,538	sy	\$	44.00	\$	419,662
409	6" Curb & Gutter		5,920	lf	\$	6.50	\$	38,480
509	4" Topsoil		7,071	sy	\$	5.00	\$	35,356
609	4' Concrete Sidewalk		11,840	sf	\$	5.00	\$	59,200
701	Turn Lanes and Median Openings		1,070	sy	\$	44.00	\$	47,076
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	701,154
Maio	or Construction Component Allowa	ances:	_	_	-	_		
maje	Item Description	Notes			Alle	owance	П	Item Cost
<b>√</b>	Prep ROW					3%	\$	21,035
	Traffic Control	Construction Phase	Traffic Control			3%	\$	21,035
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$	28,046
	Roadway Drainage	Standard Internal Sy				30%	\$	210,346
	Illumination					11%	\$	78,955
	Special Drainage Structures	None Anticipated			\$	-	\$	-
	Water	Minor Adjustments				6%	\$	42,069
$\checkmark$	Sewer	Minor Adjustments				4%	\$	28,046
	Establish Turf / Erosion Control					3%	\$	21,035
	Basic Landscaping					3%	\$	21,035
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$	-
	Other:							
				Allowa	nce \$	Subtotal:	\$	471,601
	Paving and Allowance Subtotal:						\$	1,172,755
Construction Contingency: 15%						175,913		
	Construction Contingency. 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 C	ost 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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50 | \$

updated: 10/2/2012

**Item Cost** 

198,269

Project Information: Description: Project No. Z-6

Name: Risinger Rd. (6) This project consists of the construction of a new

Quantity

18,883

Unit

су

Limits: Old Burleson Rd. to Oak Grove Rd. four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 4,145

109 Unclassified Street Excavation

Service Area(s): Z

No. Item Description

209	6" Lime Stabilization (with Lime @ 3	32#/sy)	28,554	sy	\$	3.00	\$ 85,663
309	11" Concrete Pavement		26,712	sy	\$	44.00	\$ 1,175,338
409	6" Curb & Gutter		16,580	lf	\$	6.50	\$ 107,770
509	4" Topsoil		19,804	sy	\$	5.00	\$ 99,019
609	4' Concrete Sidewalk		33,160	sf	\$	5.00	\$ 165,800
701	Turn Lanes and Median Openings		2,996	sy	\$	44.00	\$ 131,846
		Pa	ving Const	ruction (	Cost	Subtotal:	\$ 1,963,705
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			Al	lowance	Item Cost
V	Prep ROW					3%	\$ 58,911
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%	\$ 78,548
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 589,112
	Illumination					11%	\$ 221,128
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$ 250,000
	Water	Minor Adjustments				6%	\$ 117,822
	Sewer	Minor Adjustments				4%	\$ 78,548
	Establish Turf / Erosion Control					3%	\$ 58,911
	Basic Landscaping					3%	58,911
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$ 150,000
	Other:					\$0	\$ -
				Allowa	nce	Subtotal:	\$ 1,661,891
	Paving and Allowance Subtotal:						3,625,597
		Constru	ıction Conti			15%	543,839
	Construction Cost TOTAL:						\$ 4,170,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	4,170,000			
Engineering/Survey/Testing:		20%	\$	834,000			
Mobilization		5%	\$	208,500			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	834,000			
	Impact Fee Proj	ect Cost TOTAL:	\$	6,047,000			

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:Description:Project No.Z-7Name:Oak Grove Shelby Rd.This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Ultimate Class: Major Arterial

Length (If): 5,315 Service Area(s): Z

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	24,213	су	\$	10.50	\$ 254,234
209	6" Lime Stabilization (with Lime @ 32#/sy)	36,614	sy	\$	3.00	\$ 109,843
309	11" Concrete Pavement	34,252	sy	\$	44.00	\$ 1,507,098
409	6" Curb & Gutter	21,260	lf	\$	6.50	\$ 138,190
509	4" Topsoil	25,394	sy	\$	5.00	\$ 126,969
609	4' Concrete Sidewalk	42,520	sf	\$	5.00	\$ 212,600
701	Turn Lanes and Median Openings	3,842	sy	\$	44.00	\$ 169,061

Paving Construction Cost Subtotal: \$ 2,517,996

Mai	or Construction Component Allow	ances:	_			
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	75,540	
$\checkmark$	Traffic Control	Construction Phase Traffic Control	3%	\$	75,540	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	100,720	
	Roadway Drainage	Standard Internal System	30%	\$	755,399	
	Illumination		11%	\$	283,545	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	151,080	
	Sewer	Minor Adjustments	4%	\$	100,720	
	Establish Turf / Erosion Control		3%	\$	75,540	
	Basic Landscaping		3%	\$	75,540	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000	
	Other:		\$0	\$	-	
		Allowa	ance Subtotal:	\$	1,993,623	
		Paving and Allowa		\$	4,511,619	
	Construction Contingency: 15%					
		Construction C	ost TOTAL:	\$	5,189,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	5,189,000			
Engineering/Survey/Testing:		20%	\$	1,037,800			
Mobilization		5%	\$	259,450			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	518,900			
	Impact Fee Project	t Cost TOTAL:	\$	7,005,000			

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

**Unit Price** 

10.50

updated: 10/2/2012

**Item Cost** 

251,603

Project Information: Description: Project No. Z-8

Name: Oak Grove Shelby Rd./Risinger Rd. This project consists of the construction of a new

Quantity

23,962

Unit

су

Limits: Race St. to Rendon / Forest Hill Dr. four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 5,260

109 Unclassified Street Excavation

Length (If): 5,2 Service Area(s): Z

No. Item Description

209	6" Lime Stabilization (with Lime @ 3	2#/sy)	36,236	sy	\$	3.00	\$ 108,707
309	11" Concrete Pavement		33,898	sy	\$	44.00	\$ 1,491,502
409	6" Curb & Gutter		21,040	lf	\$	6.50	\$ 136,760
509	4" Topsoil		25,131	sy	\$	5.00	\$ 125,656
609	4' Concrete Sidewalk		42,080	sf	\$	5.00	\$ 210,400
701	Turn Lanes and Median Openings		3,803	sy	\$	44.00	\$ 167,312
	Paving Construction Cost Subtotal:					\$ 2,491,940	
			•				
Majo	or Construction Component Allowa	ances:					
	Item Description	Notes			All	owance	Item Cost
	Prep ROW					3%	\$ 74,758
	Traffic Control	None Anticipated				0%	\$ -
	Pavement Markings/Markers	Pavement Markings with Bike Lanes				4%	\$ 99,678
	Roadway Drainage	Standard Internal System				30%	\$ 747,582
	Illumination					11%	\$ 280,611
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 149,516
	Sewer	Minor Adjustments				4%	\$ 99,678
	Establish Turf / Erosion Control					3%	\$ 74,758
	Basic Landscaping					3%	\$ 74,758
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$ 150,000
	Other:					\$0	\$ -
Allowance Subtotal:					\$ 1,751,339		
Paving and Allowance Subtotal:					\$ 4,243,278		
Construction Contingency: 15%					\$ 636,492		
Construction Cost TOTAL:						\$ 4,880,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	4,880,000			
Engineering/Survey/Testing:		20%	\$	976,000			
Mobilization		5%	\$	244,000			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	976,000			
	\$	7,076,000					

**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.

### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-9

Name: McPherson Blvd. (4) This project consists of the construction of a new

Limits: FM 731 to UP RR four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 6,870

Service Area(s): Z

Roadway Construction Cost Projection							
No.	Item Description	Quantity	Unit	Unit Price		Item Cost	
109	Unclassified Street Excavation	31,297	су	\$	10.50	\$	328,615
209	6" Lime Stabilization (with Lime @ 32#/sy)	47,327	sy	\$	3.00	\$	141,980
309	11" Concrete Pavement	44,273	sy	\$	44.00	\$	1,948,027
409	6" Curb & Gutter	27,480	lf	\$	6.50	\$	178,620
509	4" Topsoil	32,823	sy	\$	5.00	\$	164,117
609	4' Concrete Sidewalk	54,960	sf	\$	5.00	\$	274,800
701	Turn Lanes and Median Openings	4,966	sy	\$	44.00	\$	218,523
Paving Construction Cost Subtotal: \$						3,254,682	

Major Construction Component Allowances:							
Item Description	Notes	Allowance		Item Cost			
√ Prep ROW		3%	\$	97,640			
Traffic Control	None Anticipated	0%	\$	-			
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	130,187			
√ Roadway Drainage	Standard Internal System	30%	\$	976,404			
$\sqrt{}$ Illumination		11%	\$	366,501			
Special Drainage Structures	None Anticipated	\$ -	\$	-			
√ Water	Minor Adjustments	6%	\$	195,281			
√ Sewer	Minor Adjustments	4%	\$	130,187			
√ Establish Turf / Erosion Control		3%	\$	97,640			
√ Basic Landscaping		3%	\$	97,640			
$\sqrt{}$ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000			
√ Other:	Railroad Crossing	\$250,000	\$	250,000			
	\$	2,641,482					
	\$	5,896,164					
	\$	846,925					
	\$	6,744,000					

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	6,744,000			
Engineering/Survey/Testing:		20%	\$	1,348,800			
Mobilization		5%	\$	337,200			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,348,800			
	\$	9,779,000					

**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.

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. **Z-10** Description: Name: McPherson Blvd. (5) This project consists of the widening of a three-Limits: Bilsky Bay Dr. to IH-35W SBFR lane undivided concrete facility into a four-lane Impact Fee Class: MA4D-B (1/2) divided major arterial.

Major Arterial Length (If): 485 Service Area(s): Ζ

**Ultimate Class:** 

Ro	adway Construction Cost P	rojection						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
111	Unclassified Street Excavation		1,132	су	\$	10.50	\$	11,883
211	6" Lime Stabilization (with Lime @	2 32#/sy)	1,671	sy	\$	3.00	\$	5,012
311	11" Concrete Pavement		1,563	sy	\$	44.00	\$	68,762
411	6" Curb & Gutter		1,455	lf	\$	6.50	\$	9,458
511	4" Topsoil		1,751	sy	\$	5.00	\$	8,757
611	4' Concrete Sidewalk		1,940	sf	\$	5.00	\$	9,700
701	Turn Lanes and Median Openings	3	351	sy	\$	44.00	\$	15,427
	Paving Construction				nst :	Subtotal:	\$	128,998
		• •	aving Const	uotion (	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	oubtotai.	_	. 20,000
			aving Const	i dolloll (		oubtotai.	_	120,000
Maj	or Construction Component Allo		aving const					•
Maj	or Construction Component Allo Item Description		aving Const	- Collon (		owance		Item Cost
Maj	·	wances:	aving const					Item Cost
	Item Description	wances:				owance		, 
√ ,	Item Description Prep ROW	wances: Notes	Traffic Control			owance 3%	\$	Item Cost
√ √	Item Description Prep ROW Traffic Control	wances: Notes  Construction Phase	Traffic Control with Bike Lanes			owance 3% 3%	\$ \$ \$	Item Cost 3,870 3,870
√ √ √	Prep ROW Traffic Control Pavement Markings/Markers	wances: Notes  Construction Phase Pavement Markings	Traffic Control with Bike Lanes			owance 3% 3% 4%	\$ \$ \$	3,870 3,870 5,160
\ \ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage	wances: Notes  Construction Phase Pavement Markings	Traffic Control with Bike Lanes			owance 3% 3% 4% 30%	\$ \$ \$	3,870 3,870 5,160 38,699
\ \ \ \ \	Prep ROW Traffic Control Pavement Markings/Markers Roadway Drainage Illumination	Wances: Notes  Construction Phase Pavement Markings Standard Internal Sy	Traffic Control with Bike Lanes		All	owance 3% 3% 4% 30%	\$ \$ \$ \$	3,870 3,870 5,160 38,699

٧	Sewei	winor Adjustments	4 /0	φ	5,160
	Establish Turf / Erosion Control		3%	\$	3,870
	Basic Landscaping		3%	\$	3,870
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
	Other:		\$0	\$	-
		Allowa	nce Subtotal:	\$	86,765
		Paving and Allowa	nce Subtotal:	\$	215,763
		Construction Contingency:	15%	\$	32,364
		Construction C	ost TOTAL:	\$	249,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	249,000			
Engineering/Survey/Testing:		20%	\$	49,800			
Mobilization		5%	\$	12,450			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	24,900			
Impact Fee Project Cost TOTAL:				336,000			

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.

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	Z-11		
Name:	McPherson Blvd. (6)	This project consists of the construction of an				
Limits:	IH-35W SBFR to IH-35W NBFR	additional two-lan	e McPherson Blvd.	Bridge over IH-		
Impact Fee Class:	MA4D-B (1/2)	35W. This project	t estimates the cost	of the bridge		
<b>Ultimate Class:</b>	Major Arterial	to be \$3,591,000.				
Length (If):	665	, , , , , , , , , , , , , , , , , , , ,				
Service Area(s):	Z					

Impact Fee Project Cost Summary Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing Other		-	\$ 3,591,000
	Impact Fee Project C	ost TOTAL:	\$ 3,591,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50 | \$

updated: 10/2/2012

**Item Cost** 

169.091

3,150,901

3,624,000

472,635

\$

15%

Project Information:Description:Project No.Z-12Name:McPherson Blvd. (7)This project consists of the construction of a new

Quantity

16,104

Unit

CV

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

\$

Limits: IH-35W NBFR to Stone (Oak Grove) four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial
Length (If): 3,535
Service Area(s): Z

109 Unclassified Street Excavation

No. Item Description

			,	- ,	-		-	,
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	24,352	sy	\$	3.00	\$	73,057
309	11" Concrete Pavement 22,781 sy		\$	44.00	\$	1,002,369		
409	6" Curb & Gutter		14,140	lf	\$	6.50	\$	91,910
509	4" Topsoil		16,889	sy	\$	5.00	\$	84,447
609	4' Concrete Sidewalk		28,280	sf	\$	5.00	\$	141,400
701	Turn Lanes and Median Openings		2,556	sy	\$	44.00	\$	112,442
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	1,674,716
Majo	or Construction Component Allow	ances:						
	Item Description	Notes			Al	lowance		Item Cost
<b>V</b>	Prep ROW					3%	\$	50,241
	Traffic Control	None Anticipated				0%	\$	-
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	;		4%	\$	66,989
	Roadway Drainage	Standard Internal Sys	stem			30%	\$	502,415
	Illumination					11%	\$	188,585
	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
	Water	Minor Adjustments				6%	\$	100,483
√.	Sewer	Minor Adjustments				4%		66,989
√.	Establish Turf / Erosion Control					3%		50,241
√.	Basic Landscaping				3%	\$	50,241	
$\checkmark$	Intersections (Signal, Roundabout, etc.)  Assume Improvement per Half Mile			\$150,000		150,000		
	Other:			\$0		-		
	Allowance Subtotal:				\$	1,476,185		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,624,000			
Engineering/Survey/Testing:		20%	\$	724,800			
Mobilization		5%	\$	181,200			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	724,800			
	\$	5,255,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Project Information: Description: Project No. Z-13
Name: McPherson Blvd. (8)
This project consists of the

Limits: Stone (Oak Grove) to Forest Hill - Everman Rd.

Impact Fee Class: MA4D
Ultimate Class: Major Arterial

Length (If): 7,595 Service Area(s): Z reconstruction of a two-lane asphalt facility into a six-lane divided principal

arterial.

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
108	Unclassified Street Excavation	33,756	су	\$	10.50	\$ 354,433
208	6" Lime Stabilization (with Lime @ 32#/sy)	50,633	sy	\$	3.00	\$ 151,900
308	11" Concrete Pavement	47,258	sy	\$	44.00	\$ 2,079,342
408	6" Curb & Gutter	30,380	lf	\$	6.50	\$ 197,470
508	4" Topsoil	37,975	sy	\$	5.00	\$ 189,875
608	4' Concrete Sidewalk	60,760	sf	\$	5.00	\$ 303,800
701	Turn Lanes and Median Openings	5,491	sy	\$	44.00	\$ 241,584
	Pa	aving Consti	uction (	Cost	Subtotal:	\$ 3,518,405

Maj	Major Construction Component Allowances:					
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	105,552	
	Traffic Control	Construction Phase Traffic Control	3%	\$	105,552	
	Pavement Markings/Markers		2%	\$	75,529	
	Roadway Drainage	Standard Internal System	30%	\$	1,055,521	
	Illumination		11%	\$	396,198	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	211,104	
	Sewer	Minor Adjustments	4%	\$	140,736	
	Establish Turf / Erosion Control		3%	\$	105,552	
	Basic Landscaping		3%	\$	105,552	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000	
	Other:					
		Allowa	ince Subtotal:	\$	2,601,298	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	917,955	
		Construction C	ost TOTAL:	\$	7,038,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	7,038,000			
Engineering/Survey/Testing:		20%	\$	1,407,600			
Mobilization		5%	\$	351,900			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	703,800			
Impact Fee Project Cost TOTAL:				9,501,000			

**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.

# City of Fort Worth 2013 Transportation Impact Fee Study

2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	Z-14		
Name:	McAlister Rd. (1)	This completed project consists of the				
Limits:	50' W of UP RR to IH-35W SBFR	SBFR reconstruction of the existing two-lane facility in				
Impact Fee Class:	M3U-B	three-lane minor ar	terial. The actual of	cost of this		
Ultimate Class:	Minor Arterial	project was \$1,217,561.				
Length (If):	1,430	P - 2	,			
Service Area(s):	Z					

Impact Fee Project Cost Summary			
Item Description	Notes:	Allowance	Item Cost
City Contribution to Construction Cost: Engineering/Survey/Testing		-	\$ 1,217,561
Other	CFA# 2005105 & 2007083		\$ (295,800)
	Impact Fee Project C	ost TOTAL:	\$ 921,761

**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.

# City of Fort Worth 2013 Transportation Impact

# 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

<b>Project Informat</b>	tion:	Description:	Project No.	Z-15			
Name:	McAlister Rd. (2)	This project consists of the reconstruction of the					
Limits:	IH-35W SBFR to IH-35W NBFR	existing two-lane	McAlister Rd. Bridg	e over IH-35W.			
Impact Fee Class:	M4U-B	This project estimates the cost of the bridge to be					
Ultimate Class:	Minor Arterial	\$2,716,000.		ŭ			
Length (If):	485	, , .,					
Service Area(s):	Z						

Item Description	Notes:	Allowance	Item Cost
Estimated Construction Cost: Engineering/Survey/Testing Other		-	\$ 2,716,000
	Impact F	ee Project Cost TOTAL:	\$ 2,716,00

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-16

Name: McAlister Rd. (3) This project consists of the construction of a new

Limits: IH-35W NBFR to Stone Rd. four-lane minor undivided minor arterial.

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial

Length (If): 1,275 Service Area(s): Z

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	4,250	су	\$	10.50	\$ 44,625
207	6" Lime Stabilization (with Lime @ 32#/sy)	8,358	sy	\$	3.00	\$ 25,075
307	9" Concrete Pavement	8,075	sy	\$	36.00	\$ 290,700
407	6" Curb & Gutter	2,550	lf	\$	6.50	\$ 16,575
507	4" Topsoil	1,842	sy	\$	5.00	\$ 9,208
607	4' Concrete Sidewalk	10,200	sf	\$	5.00	\$ 51,000
701	Turn Lanes and Median Openings	0				
		Paving Constr	uction (	Cost	Subtotal:	\$ 437,183

		- aviling demonstration of	- Cabiolan	_	407,100				
Maj	Major Construction Component Allowances:								
	Item Description	Notes	Allowance		Item Cost				
	Prep ROW		3%	\$	13,116				
	Traffic Control	None Anticipated	0%	\$	-				
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	17,487				
	Roadway Drainage	Standard Internal System	30%	\$	131,155				
	Illumination		11%	\$	49,230				
	Special Drainage Structures	None Anticipated	\$ -	\$	-				
	Water	Minor Adjustments	6%	\$	26,231				
	Sewer	Minor Adjustments	4%	\$	17,487				
	Establish Turf / Erosion Control		3%	\$	13,116				
	Basic Landscaping		3%	\$	13,116				
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-				
	Other:		\$0	\$	-				
		Allowa	ance Subtotal:	\$	280,937				
		Paving and Allowa	ance Subtotal:	\$	718,121				
		Construction Contingency:	15%	\$	107,718				
		Construction C	ost TOTAL:	\$	826,000				

Impact Fee Project Cost Sum	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 826,000
Engineering/Survey/Testing:		20%	\$ 165,200
Mobilization		5%	\$ 41,300
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 165,200
	Impact Fee Project	ct Cost TOTAL:	\$ 1,198,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Alsbury Blvd.
Limits:
This project consists of the reconstruction of an existing two-lane undivided asphalt facility into a four-lane divided major arterial.

Ultimate Class: Major Arterial

Length (If): 1,055 Service Area(s): Z

	dway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
108	Unclassified Street Excavation	4,689	су	\$	10.50	\$	49,233
208	6" Lime Stabilization (with Lime @ 32#/sy)	7,033	sy	\$	3.00	\$	21,100
308	11" Concrete Pavement	6,564	sy	\$	44.00	\$	288,836
408	6" Curb & Gutter	4,220	lf	\$	6.50	\$	27,430
508	4" Topsoil	5,275	sy	\$	5.00	\$	26,375
608	4' Concrete Sidewalk	8,440	sf	\$	5.00	\$	42,200
701	Turn Lanes and Median Openings	763	sy	\$	44.00	\$	33,558
Paving Construction Cost Subtotal: \$					488,732		

Maj	or Construction Component Allow	ances:	_			
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	14,662	
	Traffic Control	Construction Phase Traffic Control	3%	\$	14,662	
	Pavement Markings/Markers		2%	\$	10,492	
	Roadway Drainage	Standard Internal System	30%	\$	146,620	
	Illumination		11%	\$	55,035	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	29,324	
	Sewer	Minor Adjustments	4%	\$	19,549	
	Establish Turf / Erosion Control		3%	\$	14,662	
	Basic Landscaping		3%	\$	14,662	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:		\$0	\$	-	
		Allowa	nce Subtotal:	\$	319,667	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	121,260	
		Construction C	ost TOTAL:	\$	930,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 930,000
Engineering/Survey/Testing:		20%	\$ 186,000
Mobilization		5%	\$ 46,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 93,000
	Impact Fee Projec	t Cost TOTAL:	\$ 1,256,000

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

10.50

10/2/2012 updated:

**Item Cost** 

216,446

4,510,000

**Project Information: Z-18** Description: Project No. Name: Hemphill St. (5) This project consists of the construction of a new

Quantity

20,614

Unit

су

**Construction Cost TOTAL** 

Limits: Future Everman Pkwy. to Risinger Rd. four-lane divided major arterial.

Impact Fee Class: MA4D-B **Ultimate Class:** Major Arterial

109 Unclassified Street Excavation

Length (If): 4,525 Service Area(s): Ζ

No. Item Description

103	Officiassified Officer Excavation		20,017	Cy	Ψ	10.50	Ψ	210,770
209	6" Lime Stabilization (with Lime @ 3	32#/sy)	31,172	sy	\$	3.00	\$	93,517
309	11" Concrete Pavement		29,161	sy	\$	44.00	\$	1,283,089
409	6" Curb & Gutter		18,100	lf	\$	6.50	\$	117,650
509	4" Topsoil		21,619	sy	\$	5.00	\$	108,097
609	4' Concrete Sidewalk		36,200	sf	\$	5.00	\$	181,000
701	Turn Lanes and Median Openings		3,271	sy	\$	44.00	\$	143,933
		Pa	aving Const	ruction (	Cost	Subtotal:	\$	2,143,731
Majo	or Construction Component Allows	1						
	Item Description	Notes			Al	lowance		Item Cost
	Prep ROW					3%	-	64,312
	Traffic Control	None Anticipated				0%	-	-
√,	Pavement Markings/Markers	Pavement Markings	with Bike Lanes	i		4%		85,749
√,	Roadway Drainage	Standard Internal Sy	stem			30%		643,119
√.	Illumination					11%	\$	241,400
√.	Special Drainage Structures	Minor Stream Crossi	ng		\$	250,000	\$	250,000
√,	Water	Minor Adjustments				6%		128,624
	Sewer	Minor Adjustments				4%		85,749
	Establish Turf / Erosion Control					3%	-	64,312
	Basic Landscaping					3%		64,312
	Intersections (Signal, Roundabout, etc.)	Assume Improvemen	nt per Half Mile			\$150,000	\$	150,000
	Other:					\$0	\$	-
	Allowance Subtotal:					\$	1,777,577	
			Paving an					3,921,309
		Constru	uction Conti	ngency:		15%	\$	588,196

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 4,510,000
Engineering/Survey/Testing:		20%	\$ 902,000
Mobilization		5%	\$ 225,500
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 902,000
	Impact Fee Proj	ject Cost TOTAL:	\$ 6,540,000

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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-19
Name: Hemphill St. (6) This project consists of the

Limits: 1670' S of Risinger Rd. to 580' N of Brasenose St. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.

Ultimate Class: Major Arterial

Length (If): 8,765 Service Area(s): Z

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	39,929	су	\$	10.50	\$ 419,259
209	6" Lime Stabilization (with Lime @ 32#/sy)	60,381	sy	\$	3.00	\$ 181,143
309	11" Concrete Pavement	56,486	sy	\$	44.00	\$ 2,485,364
409	6" Curb & Gutter	35,060	lf	\$	6.50	\$ 227,890
509	4" Topsoil	41,877	sy	\$	5.00	\$ 209,386
609	4' Concrete Sidewalk	70,120	sf	\$	5.00	\$ 350,600
701	Turn Lanes and Median Openings	6,336	sy	\$	44.00	\$ 278,800
	·	Paving Constr	uction (	Cost	Subtotal:	\$ 4,152,443

Majo	or Construction Component Allow	ances:				
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	124,573	
	Traffic Control	None Anticipated	0%	\$	-	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	166,098	
	Roadway Drainage	Standard Internal System	30%	\$	1,245,733	
	Illumination		11%	\$	467,595	
	Special Drainage Structures	Crosses Deer Creek	\$ 250,000	\$	250,000	
	Water	Minor Adjustments	6%	\$	249,147	
	Sewer	Minor Adjustments	4%	\$	166,098	
	Establish Turf / Erosion Control		3%	\$	124,573	
	Basic Landscaping		3%	\$	124,573	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	450,000	
	Other:		\$0	\$	-	
		Allowa	nce Subtotal:	\$	3,368,390	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	1,128,125	
		Construction C	ost TOTAL:	\$	8,649,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	8,649,000			
Engineering/Survey/Testing:		20%	\$	1,729,800			
Mobilization		5%	\$	432,450			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	1,729,800			
	\$	12,541,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

**Roadway Construction Cost Projection** 

Kimley-Horn and Associates, Inc.

Unit Price

updated: 10/2/2012

**Item Cost** 

29,155

609,000

Project Information:

Description:

Project No.

Z-20

Name:
Hemphill St. (7)
This project consists of the widening of a two-lane
Limits:

580' N of Brasenose St. to Nuffield Ln. concrete facility into a four-lane divided major

Quantity

2,777

Unit

су

**Construction Cost TOTAL:** 

Impact Fee Class: MA4D-B (1/2) arterial.

Ultimate Class: Major Arterial

111 Unclassified Street Excavation

Length (If): 1,190 Service Area(s): Z

No. Item Description

211	6" Lime Stabilization (with Lime @ 3	32#/sy)	4,099	sy	\$	3.00	\$ 12,297
311	11" Concrete Pavement		3,834	sy	\$	44.00	\$ 168,716
411	6" Curb & Gutter		3,570	lf	\$	6.50	\$ 23,205
511	4" Topsoil		4,297	sy	\$	5.00	\$ 21,486
611	4' Concrete Sidewalk		4,760	sf	\$	5.00	\$ 23,800
701	Turn Lanes and Median Openings		860	sy	\$	44.00	\$ 37,852
		Pa	ving Const	ruction (	Cost	Subtotal:	\$ 316,510
			J				ŕ
Majo	or Construction Component Allow	ances:					
	Item Description	Notes			Alle	owance	Item Cost
	Prep ROW					3%	\$ 9,495
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 9,495
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 12,660
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 94,953
	Illumination					11%	\$ 35,641
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 18,991
	Sewer	Minor Adjustments				4%	\$ 12,660
	Establish Turf / Erosion Control					3%	\$ 9,495
	Basic Landscaping					3%	\$ 9,495
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$0	\$ -
	Allowance Subtotal:						\$ 212,887
			Paving an	d Allowa	nce S	Subtotal:	\$ 529,397
Construction Contingency: 15%						\$ 79,410	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	609,000			
Engineering/Survey/Testing:		20%	\$	121,800			
Mobilization		5%	\$	30,450			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	60,900			
	\$	822,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Hemphill St. (8)

Limits:

FM 1187 EB to McAlister Rd.

Impact Fee Class:

M4U-B (1/2)

Description:

Project No.

This project consists of the widening of a two-lane concrete facility into a four-lane undivided minor arterial.

Ultimate Class: Minor Arterial

Length (If): 1,330 Service Area(s): Z

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
105	Unclassified Street Excavation	2,217	су	\$	10.50	\$ 23,275
205	6" Lime Stabilization (with Lime @ 32#/sy)	4,359	sy	\$	3.00	\$ 13,078
305	9" Concrete Pavement	4,212	sy	\$	36.00	\$ 151,620
405	6" Curb & Gutter	1,330	lf	\$	6.50	\$ 8,645
505	4" Topsoil	961	sy	\$	5.00	\$ 4,803
605	4' Concrete Sidewalk	5,320	sf	\$	5.00	\$ 26,600
701	Turn Lanes and Median Openings	0				

Paving Construction Cost Subtotal: \$ 228,021

Major Construction Component Allov Item Description	Notes	Allowance	ŀ	tem Cost
√ Prep ROW		3%	\$	6,841
√ Traffic Control	Construction Phase Traffic Control	3%	\$	6,841
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	9,121
√ Roadway Drainage	Standard Internal System	30%	\$	68,406
√ Illumination		11%	\$	25,677
Special Drainage Structures	None Anticipated	\$ -	\$	-
Water	Minor Adjustments	6%	\$	13,681
√ Sewer	Minor Adjustments	4%	\$	9,121
√ Establish Turf / Erosion Control		3%	\$	6,841
√ Basic Landscaping		3%	\$	6,841
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
Other:		\$0	\$	-
	Allow	ance Subtotal:	\$	153,369
	\$	381,390		
	\$	57,208		
	\$	439,000		

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 439,000
Engineering/Survey/Testing:		20%	\$ 87,800
Mobilization		5%	\$ 21,950
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 43,900
	\$ 593,000		

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **Z-22** Name: Hemphill St. (9) This project consists of the construction of a new

Limits: McAlister Rd. to S. City Limits four-lane undivided minor arterial.

Impact Fee Class: M4U-B **Ultimate Class:** Minor Arterial Length (If): 1,070 Service Area(s): Ζ

No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation	3,567	су	\$	10.50	\$	37,450
207	6" Lime Stabilization (with Lime @ 32#/sy)	7,014	sy	\$	3.00	\$	21,043
307	9" Concrete Pavement	6,777	sy	\$	36.00	\$	243,960
407	6" Curb & Gutter	2,140	lf	\$	6.50	\$	13,910
507	4" Topsoil	1,546	sy	\$	5.00	\$	7,728
607	4' Concrete Sidewalk	8,560	sf	\$	5.00	\$	42,800
701	Turn Lanes and Median Openings	0					
Paving Construction Cost Subtotal: \$						366,891	

Major Construction Component Allov Item Description	Notes	Allowance		Item Cost		
√ Prep ROW		3%	\$	11,007		
Traffic Control	None Anticipated	0%	\$	-		
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	14,676		
√ Roadway Drainage	Standard Internal System	30%	\$	110,067		
√ Illumination		11%	\$	41,315		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
√ Water	Minor Adjustments	6%	\$	22,013		
√ Sewer	Minor Adjustments	4%	\$	14,676		
√ Establish Turf / Erosion Control		3%	\$	11,007		
√ Basic Landscaping		3%	\$	11,007		
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
Other:		\$0	\$	-		
	Allowance Subtotal:					
	Paving and Allow Construction Contingency		\$	602,658		
	\$	90,399				
	Construction C	ost 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			
	\$	1,006,000					

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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Roadway Construction Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

<b>Project Informat</b>	t <b>ion:</b>	escription:	Project No.	<b>Z-23</b>
Name:	Oak Grove Rd. (4)		This project cons	ists of the
Limits:	Forum Way to Future Risinger Rd./Oak	Grove Shelby	reconstruction of	a two-lane
Impact Fee Class:	MA4D-B		asphalt facility in	to a four-lane
Ultimate Class:	Major Arterial		divided major art	erial.
Length (If):	1,925			
Service Area(s):	Z			

	Item Description	,	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation		8,769	су	\$	10.50	\$ 92,079
209	9 6" Lime Stabilization (with Lime @ 32#/sy) 13,261 sy			\$	3.00	\$ 39,783	
309	11" Concrete Pavement		12,406	sy	\$	44.00	\$ 545,844
409	6" Curb & Gutter		7,700	lf	\$	6.50	\$ 50,050
509	4" Topsoil		9,197	sy	\$	5.00	\$ 45,986
609	4' Concrete Sidewalk		15,400	sf	\$	5.00	\$ 77,000
701	Turn Lanes and Median Openings		1,392	sy	\$	44.00	\$ 61,231
		Pa	aving Const	ruction (	Cost S	Subtotal:	\$ 911,974
Majo	or Construction Component Allowa	ances:					_
	Item Description	Notes			Alle	owance	Item Cost
$\checkmark$	Prep ROW					3%	\$ 27,359
	Traffic Control	Construction Phase	Traffic Control			3%	\$ 27,359
	Pavement Markings/Markers	Pavement Markings	with Bike Lanes			4%	\$ 36,479
	Roadway Drainage	Standard Internal Sys	stem			30%	\$ 273,592
	Illumination					11%	\$ 102,695
	Special Drainage Structures	None Anticipated			\$	-	\$ -
	Water	Minor Adjustments				6%	\$ 54,718
	Sewer	Minor Adjustments				4%	\$ 36,479
	Establish Turf / Erosion Control					3%	\$ 27,359
	Basic Landscaping					3%	\$ 27,359
	Intersections (Signal, Roundabout, etc.)	None Anticipated				\$0	\$ -
	Other:					\$ -	
Allowance Subtotal:						\$ 613,400	
Paving and Allowance Subtotal:						Subtotal:	\$ 1,525,375
		Constru	uction Conti			15%	\$ 228,806
Construction Cost TOTAL:						\$ 1,755,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 1,755,000
Engineering/Survey/Testing:		20%	\$ 351,000
Mobilization		5%	\$ 87,750
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 175,500
	\$ 2,369,000		

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-24

Name: Oak Grove Rd. (5) This project consists of the
Limits: Oak Grove Shelby to Oak Grove Rd. (Realigned) reconstruction of a two-lane asphalt

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial

facility into a four-lane divided major arterial.

Length (If): 990 Service Area(s): Z

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	4,510	су	\$	10.50	\$ 47,355
209	6" Lime Stabilization (with Lime @ 32#/sy)	6,820	sy	\$	3.00	\$ 20,460
309	11" Concrete Pavement	6,380	sy	\$	44.00	\$ 280,720
409	6" Curb & Gutter	3,960	lf	\$	6.50	\$ 25,740
509	4" Topsoil	4,730	sy	\$	5.00	\$ 23,650
609	4' Concrete Sidewalk	7,920	sf	\$	5.00	\$ 39,600
701	Turn Lanes and Median Openings	716	sy	\$	44.00	\$ 31,490
	Pa	aving Consti	uction (	Cost S	Subtotal:	\$ 469,015
		-				

Maj	or Construction Component Allowa					
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	14,070	
	Traffic Control	Construction Phase Traffic Control	3%	\$	14,070	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	18,761	
	Roadway Drainage	Standard Internal System	30%	\$	140,705	
	Illumination		11%	\$	52,815	
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000	
	Water	Minor Adjustments	6%	\$	28,141	
	Sewer	Minor Adjustments	4%	\$	18,761	
	Establish Turf / Erosion Control		3%	\$	14,070	
	Basic Landscaping		3%	\$	14,070	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:		\$0	\$	-	
		Allowa	nce Subtotal:	\$	565,463	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	155,172	
		Construction Const	ost TOTAL:	\$	1,190,000	

Impact Fee Project Cost Sum	mary					
Item Description	Notes:	Allowance		Item Cost		
Construction:		-	\$	1,190,000		
Engineering/Survey/Testing:		20%	\$	238,000		
Mobilization		5%	\$	59,500		
Previous City contribution			\$	-		
Other						
ROW/Easement Acquisition:	Existing Alignment	10%	\$	119,000		
	Impact Fee Project Cost TOTAL:					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-25

Name: Oak Grove Rd. (6) This project consists of the

Name: Oak Grove Rd. (6)

This project consists of the
Limits: Oak Grove Rd. (Realigned) to Buffalo Springs Dr. construction of a new four-lane divided

Impact Fee Class: MA4D-B major arterial.
Ultimate Class: Major Arterial

Ultimate Class: Major Length (If): 3,285
Service Area(s): Z

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	nit Price	Item Cost
109	Unclassified Street Excavation	14,965	су	\$	10.50	\$ 157,133
209	6" Lime Stabilization (with Lime @ 32#/sy)	22,630	sy	\$	3.00	\$ 67,890
309	11" Concrete Pavement	21,170	sy	\$	44.00	\$ 931,480
409	6" Curb & Gutter	13,140	lf	\$	6.50	\$ 85,410
509	4" Topsoil	15,695	sy	\$	5.00	\$ 78,475
609	4' Concrete Sidewalk	26,280	sf	\$	5.00	\$ 131,400
701	Turn Lanes and Median Openings	2,375	sy	\$	44.00	\$ 104,490
	Pa	aving Constr	ruction (	Cost	Subtotal:	\$ 1,556,278

Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 46,688
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 62,251
√ Roadway Drainage	Standard Internal System	30%	\$ 466,883
√ Illumination		11%	\$ 175,248
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 93,377
√ Sewer	Minor Adjustments	4%	\$ 62,251
√ Establish Turf / Erosion Control		3%	\$ 46,688
√ Basic Landscaping		3%	\$ 46,688
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:			
	Allo	wance Subtotal:	\$ 1,150,076
	\$ 2,706,353		
	Construction Contingend	wance Subtotal: cy: 15%	405,953
		Cost TOTAL:	\$ 3,113,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,113,000			
Engineering/Survey/Testing:		20%	\$	622,600			
Mobilization		5%	\$	155,650			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	622,600			
	\$	4,514,000					

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Coak Grove Rd. (7)

Description:

Oak Grove Rd. (7)

Description:

This project consists of the reconstruction of a two-lane asphalt facility into a four-lane divided major arterial.

Length (If): 685 Service Area(s): Z

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	3,121	су	\$	10.50	\$ 32,766
209	6" Lime Stabilization (with Lime @ 32#/sy)	4,719	sy	\$	3.00	\$ 14,157
309	11" Concrete Pavement	4,414	sy	\$	44.00	\$ 194,236
409	6" Curb & Gutter	2,740	lf	\$	6.50	\$ 17,810
509	4" Topsoil	3,273	sy	\$	5.00	\$ 16,364
609	4' Concrete Sidewalk	5,480	sf	\$	5.00	\$ 27,400
701	Turn Lanes and Median Openings	495	sy	\$	44.00	\$ 21,789
	P	aving Consti	uction (	Cost S	Subtotal:	\$ 324,521
		_				

Majo	or Construction Component Allow					
	Item Description	Notes	Allowance		Item Cost	
V	Prep ROW		3%	\$	9,736	
	Traffic Control	Construction Phase Traffic Control	3%	\$	9,736	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	12,981	
	Roadway Drainage	Standard Internal System	30%	\$	97,356	
	Illumination		11%	\$	36,543	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	19,471	
	Sewer	Minor Adjustments	4%	\$	12,981	
	Establish Turf / Erosion Control		3%	\$	9,736	
	Basic Landscaping		3%	\$	9,736	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:		\$0	\$	-	
		Allowa	ince Subtotal:	\$	218,275	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	81,419	
		Construction C	ost TOTAL:	\$	625,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	625,000			
Engineering/Survey/Testing:		20%	\$	125,000			
Mobilization		5%	\$	31,250			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	62,500			
	Impact Fee Project C	ost TOTAL:	\$	844,000			

**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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:
Oak Grove Rd. (8)
Limits:
McPherson Blvd. to Oak Grove E.
Impact Fee Class:
MA4D-B

Description:
Project No.
Z-27

This project consists of the reconstruction of a two-lane asphalt facility into a four-lane divided major arterial.

Ultimate Class: Major Arterial

Length (If): 2,295 Service Area(s): Z

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation	10,455	су	\$	10.50	\$	109,778
209	6" Lime Stabilization (with Lime @ 32#/sy)	15,810	sy	\$	3.00	\$	47,430
309	11" Concrete Pavement	14,790	sy	\$	44.00	\$	650,760
409	6" Curb & Gutter	9,180	lf	\$	6.50	\$	59,670
509	4" Topsoil	10,965	sy	\$	5.00	\$	54,825
609	4' Concrete Sidewalk	18,360	sf	\$	5.00	\$	91,800
701	Turn Lanes and Median Openings	1,659	sy	\$	44.00	\$	73,000
	D.	wing Const	ruction (	`aat 6	Subtotale	¢	1 097 262

Paving Construction Cost Subtotal: \$ 1,087,263

Major Construction Component Allow	vances:					
Item Description	Notes	Allowance		Item Cost		
√ Prep ROW		3%	\$	32,618		
√ Traffic Control	Construction Phase Traffic Control	3%	\$	32,618		
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	43,491		
√ Roadway Drainage	Standard Internal System	30%	\$	326,179		
$\sqrt{}$ Illumination		11%	\$	122,434		
√ Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000		
√ Water	Minor Adjustments	6%	\$	65,236		
√ Sewer	Minor Adjustments	4%	\$	43,491		
√ Establish Turf / Erosion Control		3%	\$	32,618		
√ Basic Landscaping		3%	\$	32,618		
Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-		
Other:		\$0	\$	-		
	Allowa	nce Subtotal:	\$	981,301		
	\$	2,068,563				
	\$	310,285				
	Construction C	ost TOTAL:	\$	2,379,000		

Impact Fee Project Cost Sun	nmary						
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,379,000			
Engineering/Survey/Testing:		20%	\$	475,800			
Mobilization		5%	\$	118,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	237,900			
	Impact Fee Project Cost TOTAL:						

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

10/2/2012 updated:

**Project Information:** Project No. **Z-28** Description: Name: Stone Rd. (1) This project consists of the reconstruction of a two-Limits: Oak Grove E. to Nelson Pl. lane asphalt facility into a four-lane divided major Impact Fee Class: MA4D-B arterial.

**Ultimate Class:** Major Arterial

Length (If): 2,770 Service Area(s): Ζ

	Idway Construction Cost Projection	Quantity	Unit	Hn	it Price		Item Cost
NO.		,	Offic	Oil	IL FIICE		item Cost
109	Unclassified Street Excavation	12,619	су	\$	10.50	\$	132,498
209	6" Lime Stabilization (with Lime @ 32#/sy)	19,082	sy	\$	3.00	\$	57,247
309	11" Concrete Pavement	17,851	sy	\$	44.00	\$	785,449
409	6" Curb & Gutter	11,080	lf	\$	6.50	\$	72,020
509	4" Topsoil	13,234	sy	\$	5.00	\$	66,172
609	4' Concrete Sidewalk	22,160	sf	\$	5.00	\$	110,800
701	Turn Lanes and Median Openings	2,002	sy	\$	44.00	\$	88,109
	Paving Construction Cost Subtotal: \$						1,312,295

Major Construction Component Allow	vances:	_			
Item Description	Notes	Allowance		Item Cost	
√ Prep ROW		3%	\$	39,369	
√ Traffic Control	Construction Phase Traffic Control	3%	\$	39,369	
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	52,492	
√ Roadway Drainage	Standard Internal System	30%	\$	393,689	
√ Illumination		11%	\$	147,774	
Special Drainage Structures	None Anticipated	\$ -	\$	-	
√ Water	Minor Adjustments	6%	\$	78,738	
√ Sewer	Minor Adjustments	4%	\$	52,492	
√ Establish Turf / Erosion Control		3%	\$	39,369	
√ Basic Landscaping		3%	\$	39,369	
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000	
Other:		\$0	\$	-	
	Allowa	ance Subtotal:	\$	1,032,659	
	Paving and Allowance Subtotal:				
	Construction Contingency:	15%	\$	351,743	
	Construction C	ost TOTAL:	\$	2,697,000	

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,697,000
Engineering/Survey/Testing:		20%	\$ 539,400
Mobilization		5%	\$ 134,850
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	Existing Alignment	10%	\$ 269,700
	\$ 3,641,000		

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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-29

Name: Stone Rd. (2) This project consists of the construction of a new

Limits: Nelson Pl. to FM 1187 four-lane divided major arterial.

Impact Fee Class: MA4D-B
Ultimate Class: Major Arterial

Length (If): 4,760 Service Area(s): Z

	dway Construction Cost Projection	Quantity	Unit	Un	it Price	Item Cost
109	Unclassified Street Excavation	21,684	CV	\$	10.50	\$ 227,687
209	6" Lime Stabilization (with Lime @ 32#/sy)	32,791	sy	\$	3.00	\$ 98,373
	11" Concrete Pavement	30,676	sy	\$	44.00	\$ 1,349,724
409	6" Curb & Gutter	19,040	lf	\$	6.50	\$ 123,760
509	4" Topsoil	22,742	sy	\$	5.00	\$ 113,711
609	4' Concrete Sidewalk	38,080	sf	\$	5.00	\$ 190,400
701	Turn Lanes and Median Openings	3,441	sy	\$	44.00	\$ 151,408
	· · · · · · · · · · · · · · · · · · ·	Paving Constr	uction (	Cost	Subtotal:	\$ 2,255,063
		-				

Maio	or Construction Component Allow	ances:		
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 67,652
	Traffic Control	None Anticipated	0%	\$ -
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 90,203
	Roadway Drainage	Standard Internal System	30%	\$ 676,519
	Illumination		11%	\$ 253,937
	Special Drainage Structures	Crosses Deer Creek	\$ 250,000	\$ 250,000
	Water	Minor Adjustments	6%	\$ 135,304
	Sewer	Minor Adjustments	4%	\$ 90,203
	Establish Turf / Erosion Control		3%	\$ 67,652
	Basic Landscaping		3%	\$ 67,652
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
	Other:		\$0	\$ -
		Allowa	nce Subtotal:	\$ 1,849,120
	_	Paving and Allowa	nce Subtotal:	\$ 4,104,183
		Construction Contingency:	15%	\$ 615,627
		Construction C	ost TOTAL:	\$ 4,720,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	4,720,000			
Engineering/Survey/Testing:		20%	\$	944,000			
Mobilization		5%	\$	236,000			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	944,000			
	\$	6,844,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-30

Name: Stone Rd. (3) This project consists of the construction of a new

Limits: FM 1187 to Alsbury Dr. four-lane undivided minor arterial.

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial
Length (If): 5,640
Service Area(s): Z

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Ur	nit Price	Item Cost
107	Unclassified Street Excavation	18,800	су	\$	10.50	\$ 197,400
207	6" Lime Stabilization (with Lime @ 32#/sy)	36,973	sy	\$	3.00	\$ 110,920
307	9" Concrete Pavement	35,720	sy	\$	36.00	\$ 1,285,920
407	6" Curb & Gutter	11,280	lf	\$	6.50	\$ 73,320
507	4" Topsoil	8,147	sy	\$	5.00	\$ 40,733
607	4' Concrete Sidewalk	45,120	sf	\$	5.00	\$ 225,600
701	Turn Lanes and Median Openings	0				
	Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 1,933,893

Maj	or Construction Component Allow	ances:				
	Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	58,017	
	Traffic Control	None Anticipated	0%	\$	-	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	77,356	
	Roadway Drainage	Standard Internal System	30%	\$	580,168	
	Illumination		11%	\$	217,771	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	116,034	
	Sewer	Minor Adjustments	4%	\$	77,356	
	Establish Turf / Erosion Control		3%	\$	58,017	
	Basic Landscaping		3%	\$	58,017	
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	300,000	
	Other:		\$0	\$	-	
		Allowa	nce Subtotal:	\$	1,542,734	
	Paving and Allowance Subtotal:					
	Construction Contingency: 15%					
		Construction C	ost TOTAL:	\$	3,999,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	3,999,000			
Engineering/Survey/Testing:		20%	\$	799,800			
Mobilization		5%	\$	199,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	799,800			
	\$	5,799,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Stone Rd. (4)

Limits:

Impact Fee Class:

Ultimate Class:

New Stone Rd. (4)

Stone Rd. (4)

Alsbury Blvd. to Abner Lee Dr.

Impact Fee Class:

M4U-B

Minor Arterial

Description:

Project No.

Z-31

This project consists of the reconstruction of a twolane asphalt facility into a four-lane undivided minor
arterial.

Length (If): 3,270 Service Area(s): Z

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
107	Unclassified Street Excavation	10,900	су	\$	10.50	\$	114,450
207	6" Lime Stabilization (with Lime @ 32#/sy)	21,437	sy	\$	3.00	\$	64,310
307	9" Concrete Pavement	20,710	sy	\$	36.00	\$	745,560
407	6" Curb & Gutter	6,540	lf	\$	6.50	\$	42,510
507	4" Topsoil	4,723	sy	\$	5.00	\$	23,617
607	4' Concrete Sidewalk	26,160	sf	\$	5.00	\$	130,800
701	Turn Lanes and Median Openings	0					
	Pa	aving Constr	uction (	Cost	Subtotal:	\$	1,121,247
İ		_					
Maid	Major Construction Component Allowances						

Major Construction Component Allov	wances:	_				
Item Description	Notes	Allowance		Item Cost		
√ Prep ROW		3%	\$	33,637		
√ Traffic Control	Construction Phase Traffic Control	3%	\$	33,637		
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	44,850		
√ Roadway Drainage	Standard Internal System	30%	\$	336,374		
√ Illumination		11%	\$	126,261		
Special Drainage Structures	None Anticipated	\$ -	\$	-		
√ Water	Minor Adjustments	6%	\$	67,275		
√ Sewer	Minor Adjustments	4%	\$	44,850		
√ Establish Turf / Erosion Control		3%	\$	33,637		
√ Basic Landscaping		3%	\$	33,637		
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
Other:		\$0	\$	-		
	Allov	vance Subtotal:	\$	904,159		
	Paving and Allowance Subtotal:					
	Construction Contingency	y: 15%	\$	303,811		
	Construction (	Cost TOTAL:	\$	2,330,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,330,000			
Engineering/Survey/Testing:		20%	\$	466,000			
Mobilization		5%	\$	116,500			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	233,000			
	\$	3,146,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-32

Name: Stone Rd. (5) This project consists of the construction of a new

Limits: Abner Lee Dr. to S City Limits four-lane undivided minor arterial.

Impact Fee Class: M4U-B

Ultimate Class: Minor Arterial

Length (If): 595 Service Area(s): Z

Roa	dway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	1,983	су	\$	10.50	\$ 20,825
207	6" Lime Stabilization (with Lime @ 32#/sy)	3,901	sy	\$	3.00	\$ 11,702
307	9" Concrete Pavement	3,768	sy	\$	36.00	\$ 135,660
407	6" Curb & Gutter	1,190	lf	\$	6.50	\$ 7,735
507	4" Topsoil	859	sy	\$	5.00	\$ 4,297
607	4' Concrete Sidewalk	4,760	sf	\$	5.00	\$ 23,800
701	Turn Lanes and Median Openings	0				
	Pa	aving Consti	ruction (	Cost	Subtotal:	\$ 204,019

D4 - 1						
Majo	or Construction Component Allow Item Description	Notes	Allowance		Item Cost	
	Prep ROW		3%	\$	6,121	
	Traffic Control	None Anticipated	0%	\$	-	
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	8,161	
	Roadway Drainage	Standard Internal System	30%	\$	61,206	
$\checkmark$	Illumination		11%	\$	22,974	
	Special Drainage Structures	None Anticipated	\$ -	\$	-	
	Water	Minor Adjustments	6%	\$	12,241	
	Sewer	Minor Adjustments	4%	\$	8,161	
	Establish Turf / Erosion Control		3%	\$	6,121	
	Basic Landscaping		3%	\$	6,121	
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-	
	Other:		\$0	\$	-	
		Allowa	ance Subtotal:	\$	131,104	
	Paving and Allowance Subtotal:					
		Construction Contingency:	15%	\$	50,268	
		Construction C	ost TOTAL:	\$	386,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	386,000			
Engineering/Survey/Testing:		20%	\$	77,200			
Mobilization		5%	\$	19,300			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	77,200			
	\$	560,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **Z-33** 

Name: Wichita St. (3) This project consists of the construction of a new

Limits: Shelby Rd. to Risinger Rd. four-lane divided major arterial.

Impact Fee Class: MA4D **Ultimate Class:** Major Arterial Length (If): 2,770 Service Area(s): Ζ

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
108	Unclassified Street Excavation	12,311	су	\$	10.50	\$	129,267
208	6" Lime Stabilization (with Lime @ 32#/sy)	18,467	sy	\$	3.00	\$	55,400
308	11" Concrete Pavement	17,236	sy	\$	44.00	\$	758,364
408	6" Curb & Gutter	11,080	lf	\$	6.50	\$	72,020
508	4" Topsoil	13,850	sy	\$	5.00	\$	69,250
608	4' Concrete Sidewalk	22,160	sf	\$	5.00	\$	110,800
701	Turn Lanes and Median Openings	2,002	sy	\$	44.00	\$	88,109
Paying Construction Cost Subtotal: \$							1.283.210

Major Construction Component Allow	vances:				
Item Description	Notes	Allowance	П	Item Cost	
√ Prep ROW		3%	\$	38,496	
Traffic Control	None Anticipated	0%	\$	-	
√ Pavement Markings/Markers		2%	\$	27,546	
√ Roadway Drainage	Standard Internal System	30%	\$	384,963	
√ Illumination		11%	\$	144,499	
Special Drainage Structures	None Anticipated	\$ -	\$	-	
√ Water	Minor Adjustments	6%	\$	76,993	
√ Sewer	Minor Adjustments	4%	\$	51,328	
√ Establish Turf / Erosion Control		3%	\$	38,496	
√ Basic Landscaping		3%	\$	38,496	
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000	
Other:		\$0	\$	-	
	Allow	ance Subtotal:	\$	950,818	
	Paving and Allowance Subtotal:				
	Construction Contingency: 15%				
	Construction (	Cost TOTAL:	\$	2,570,000	

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	2,570,000			
Engineering/Survey/Testing:		20%	\$	514,000			
Mobilization		5%	\$	128,500			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	514,000			
	\$	3,727,000					

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.

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:

Name:

Wichita St. (4)

Race St. to 790' W. of Race St.

Impact Fee Class:

MA4D (1/2)

Description:

Project No.

Z-34

This project consists of the widening of a two-lane undivided concrete facility into a four-lane divided major arterial.

Ultimate Class: Major Arterial

Length (If): 790 Service Area(s): Z

Roa	adway Construction Cost Projection					
No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
110	Unclassified Street Excavation	1,843	су	\$	10.50	\$ 19,355
210	6" Lime Stabilization (with Lime @ 32#/sy)	2,633	sy	\$	3.00	\$ 7,900
310	11" Concrete Pavement	2,458	sy	\$	44.00	\$ 108,142
410	6" Curb & Gutter	2,370	lf	\$	6.50	\$ 15,405
510	4" Topsoil	3,028	sy	\$	5.00	\$ 15,142
610	4' Concrete Sidewalk	3,160	sf	\$	5.00	\$ 15,800
701	Turn Lanes and Median Openings	571	sy	\$	44.00	\$ 25,129
	P	aving Constr	uction (	Cost S	Subtotal:	\$ 206,872

Major Construction Component Allowances: **Item Description** Allowance **Item Cost Notes** Prep ROW 3% \$ 6,206 Traffic Control 3% \$ 6,206 Construction Phase Traffic Control Pavement Markings/Markers 2% 4.441 \$ Roadway Drainage 30% \$ 62,062 Standard Internal System Illumination 11% \$ 23,295 \$ Special Drainage Structures \$ None Anticipated Water 6% 12,412 \$ Minor Adjustments Sewer 4% \$ 8,275 Minor Adjustments Establish Turf / Erosion Control 3% \$ 6,206 Basic Landscaping 3% \$ 6,206 \$ Intersections (Signal, Roundabout, etc.) None Anticipated \$0 Other: \$0 Allowance Subtotal: 135,310

Item Description	Notes:	Allowance	I	tem Cost
Construction:		-	\$	394,000
Engineering/Survey/Testing:		20%	\$	78,800
Mobilization		5%	\$	19,700
Previous City contribution			\$	-
Other				
ROW/Easement Acquisition:	Existing Alignment	10%	\$	39,400
	\$	532,000		

Paving and Allowance Subtotal:

**Construction Cost TOTAL:** 

Construction Contingency:

**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.

\$

342,182

51,327

394,000

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-35
Name: Wichita St. (5)
This project consists of the

Limits: 790' W of Race St. to McPherson Blvd. construction of a new four-lane divided

Impact Fee Class: MA4D major arterial.

Ultimate Class: Major Arterial 4,295
Service Area(s): Z

Roa	dway Construction Cost Proj	ection					
No.	Item Description		Quantity	Unit	Ur	it Price	Item Cost
108	Unclassified Street Excavation		19,089	су	\$	10.50	\$ 200,433
208	6" Lime Stabilization (with Lime @ 32	#/sy)	28,633	sy	\$	3.00	\$ 85,900
308	11" Concrete Pavement		26,724	sy	\$	44.00	\$ 1,175,876
408	6" Curb & Gutter		17,180	lf	\$	6.50	\$ 111,670
508	4" Topsoil		21,475	sy	\$	5.00	\$ 107,375
608	4' Concrete Sidewalk		34,360	sf	\$	5.00	\$ 171,800
701	Turn Lanes and Median Openings		3,105	sy	\$	44.00	\$ 136,617
		Pa	ving Consti	ruction (	Cost	Subtotal:	\$ 1,989,671
Majo	or Construction Component Allowar	nces:					
	Item Description	Notes			All	owance	Item Cost

Maj	Major Construction Component Allowances:						
	Item Description	Notes	Allowance		Item Cost		
	Prep ROW		3%	\$	59,690		
	Traffic Control	None Anticipated	0%	\$	-		
	Pavement Markings/Markers		2%	\$	42,712		
	Roadway Drainage	Standard Internal System	30%	\$	596,901		
	Illumination		11%	\$	224,051		
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000		
	Water	Minor Adjustments	6%	\$	119,380		
	Sewer	Minor Adjustments	4%	\$	79,587		
	Establish Turf / Erosion Control		3%	\$	59,690		
	Basic Landscaping		3%	\$	59,690		
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000		
	Other:		\$0	\$	-		
		Allowa	nce Subtotal:	\$	1,641,702		
	Paving and Allowance Subtotal:						
		Construction Contingency:	15%	\$	544,706		
		Construction C	ost TOTAL:	\$	4,177,000		

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	4,177,000			
Engineering/Survey/Testing:		20%	\$	835,400			
Mobilization		5%	\$	208,850			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	835,400			
	\$	6,057,000					

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-36

Name: Oak Grove Rd. (9) This project consists of the construction of a new

Limits: McPherson Blvd. to Nicole Way four-lane divided major arterial.

Impact Fee Class: MA4D
Ultimate Class: Major Arterial
Length (If): 5,080
Service Area(s): Z

Roa	dway Construction Cost Projection						
No.	Item Description		Quantity	Unit	Ur	it Price	Item Cost
108	Unclassified Street Excavation		22,578	су	\$	10.50	\$ 237,067
208	6" Lime Stabilization (with Lime @ 32#/sy)		33,867	sy	\$	3.00	\$ 101,600
308	11" Concrete Pavement		31,609	sy	\$	44.00	\$ 1,390,791
408	6" Curb & Gutter		20,320	lf	\$	6.50	\$ 132,080
508	4" Topsoil		25,400	sy	\$	5.00	\$ 127,000
608	4' Concrete Sidewalk		40,640	sf	\$	5.00	\$ 203,200
701	Turn Lanes and Median Openings		3,672	sy	\$	44.00	\$ 161,586
		Pa	ving Consti	ruction (	Cost	Subtotal:	\$ 2,353,324
Majo	or Construction Component Allowances:						
	Item Description Notes				All	owance	Item Cost
V	Pren ROW					3%	\$ 70 600

Maj	Major Construction Component Allowances:							
	Item Description	Notes	Allowance		Item Cost			
	Prep ROW		3%	\$	70,600			
	Traffic Control	None Anticipated	0%	\$	-			
	Pavement Markings/Markers		2%	\$	50,518			
	Roadway Drainage	Standard Internal System	30%	\$	705,997			
	Illumination		11%	\$	265,001			
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$	250,000			
	Water	Minor Adjustments	6%	\$	141,199			
	Sewer	Minor Adjustments	4%	\$	94,133			
	Establish Turf / Erosion Control		3%	\$	70,600			
	Basic Landscaping		3%	\$	70,600			
	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$	150,000			
	Other:		\$0	\$	-			
		Allowa	nce Subtotal:	\$	1,868,649			
	Paving and Allowance Subtotal: S							
		Construction Contingency:	15%	\$	633,296			
		Construction C	ost TOTAL:	\$	4,856,000			

Impact Fee Project Cost Summary								
Item Description	Notes:	Allowance		Item Cost				
Construction:		-	\$	4,856,000				
Engineering/Survey/Testing:		20%	\$	971,200				
Mobilization		5%	\$	242,800				
Previous City contribution			\$	-				
Other								
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$	971,200				
	Impact Fee Proje	ect Cost TOTAL:	\$	7,041,000				

**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.

**Project Information:** 

## 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Description: Project No. Z-37

Name: Oak Grove Rd. (10)

This project consists of the Limits: Nelson Pl. to 115' N. of Doe Meadow Dr.

reconstruction of an existing the construction of an existing the construction of an existing the construction of the cons

Limits: Nelson Pl. to 115' N. of Doe Meadow Dr. reconstruction of an existing two-lane undivided asphalt facility to a four-lane divided major arterial.

Length (If): 1,140 Service Area(s): Z

Roa	adway Construction Cost Projection						
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost
109	Unclassified Street Excavation	5,193	су	\$	10.50	\$	54,530
209	6" Lime Stabilization (with Lime @ 32#/sy)	7,853	sy	\$	3.00	\$	23,560
309	11" Concrete Pavement	7,347	sy	\$	44.00	\$	323,253
409	6" Curb & Gutter	4,560	lf	\$	6.50	\$	29,640
509	4" Topsoil	5,447	sy	\$	5.00	\$	27,233
609	4' Concrete Sidewalk	9,120	sf	\$	5.00	\$	45,600
701	Turn Lanes and Median Openings	824	sy	\$	44.00	\$	36,262
	D:	avina Constr	ruction (	'Act (	Subtotale	¢	540 078

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		Paving Construction (	Cost Subtotal:	\$	540,078
Maj	or Construction Component Allow	ances:			
	Item Description	Notes	Allowance		Item Cost
	Prep ROW		3%	\$	16,202
	Traffic Control	Construction Phase Traffic Control	3%	\$	16,202
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$	21,603
	Roadway Drainage	Standard Internal System	30%	\$	162,023
	Illumination		11%	\$	60,817
	Special Drainage Structures	None Anticipated	\$ -	\$	-
	Water	Minor Adjustments	6%	\$	32,405
	Sewer	Minor Adjustments	4%	\$	21,603
	Establish Turf / Erosion Control		3%	\$	16,202
	Basic Landscaping		3%	\$	16,202
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$	-
	Other:		\$0	\$	-
		Allowa	nce Subtotal:	\$	363,261
		Paving and Allowa	nce Subtotal:	\$	903,339
		Construction Contingency:	15%	\$	135,501
		Construction C	ost TOTAL:	\$	1,039,000

Impact Fee Project Cost Summary							
Item Description	Notes:	Allowance		Item Cost			
Construction:		-	\$	1,039,000			
Engineering/Survey/Testing:		20%	\$	207,800			
Mobilization		5%	\$	51,950			
Previous City contribution			\$	-			
Other							
ROW/Easement Acquisition:	Existing Alignment	10%	\$	103,900			
	Impact Fee Project C	ost TOTAL:	\$	1,403,000			

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information: Description: Project No. Z-38

Name: Oak Grove Rd. (11) This project consists of the construction of a new

Limits: FM 1187 to Burleson Retta Rd. four-lane undivided minor arterial.

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial
Length (If): 8,165

Service Area(s): Z

Roa	dway Construction Cost Projection						
No.	Item Description		Quantity	Unit	Ur	it Price	Item Cost
107	Unclassified Street Excavation		27,217	су	\$	10.50	\$ 285,775
207	6" Lime Stabilization (with Lime @ 32#/sy)		53,526	sy	\$	3.00	\$ 160,578
307	9" Concrete Pavement		51,712	sy	\$	36.00	\$ 1,861,620
407	6" Curb & Gutter		16,330	lf	\$	6.50	\$ 106,145
507	4" Topsoil		11,794	sy	\$	5.00	\$ 58,969
607	4' Concrete Sidewalk		65,320	sf	\$	5.00	\$ 326,600
701	Turn Lanes and Median Openings		0				
		Pa	aving Consti	uction (	Cost	Subtotal:	\$ 2,799,688
Majo	or Construction Component Allowances:						
	Item Description Notes				All	owance	Item Cost
	Prep ROW					3%	\$ 83,991

	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 83,991
	Traffic Control	None Anticipated	0%	\$ -
$\checkmark$	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 111,988
$\checkmark$	Roadway Drainage	Standard Internal System	30%	\$ 839,906
$\checkmark$	Illumination		11%	\$ 315,265
$\sqrt{}$	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$ 250,000
$\sqrt{}$	Water	Minor Adjustments	6%	\$ 167,981
$\sqrt{}$	Sewer	Minor Adjustments	4%	\$ 111,988
$\sqrt{}$	Establish Turf / Erosion Control		3%	\$ 83,991
$\sqrt{}$	Basic Landscaping		3%	\$ 83,991
$\sqrt{}$	Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 450,000
	Other:		\$0	\$ -
		Allowa	nce Subtotal:	\$ 2,499,100
		Paving and Allowa	nce Subtotal:	\$ 5,298,788
		Construction Contingency:	15%	\$ 794,818

Impact Fee Project Cost Sun	nmary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 6,094,000
Engineering/Survey/Testing:		20%	\$ 1,218,800
Mobilization		5%	\$ 304,700
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 1,218,800
	Impact Fee Pro	iect Cost TOTAL:	\$ 8.836.000

**Construction Cost TOTAL:** 

**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.

6,094,000

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

Project Information:Description:Project No.Z-39Name:Wildcat WayThis project consists of the construction of a new

Limits: Burleson Retta Rd. to S. City Limits four-lane undivided minor arterial.

Impact Fee Class: M4U-B
Ultimate Class: Minor Arterial
Length (If): 3,370
Service Area(s): Z

No.	Item Description	Quantity	Unit	Un	it Price	Item Cost
107	Unclassified Street Excavation	11,233	су	\$	10.50	\$ 117,950
207	6" Lime Stabilization (with Lime @ 32#/sy)	22,092	sy	\$	3.00	\$ 66,277
307	9" Concrete Pavement	21,343	sy	\$	36.00	\$ 768,360
407	6" Curb & Gutter	6,740	lf	\$	6.50	\$ 43,810
507	4" Topsoil	4,868	sy	\$	5.00	\$ 24,339
607	4' Concrete Sidewalk	26,960	sf	\$	5.00	\$ 134,800
701	Turn Lanes and Median Openings	0				
		Paving Constr	uction (	Cost S	Subtotal:	\$ 1,155,536

Major Construction Component	Allowances:	_	
Item Description	Notes	Allowance	Item Cost
√ Prep ROW		3%	\$ 34,666
Traffic Control	None Anticipated	0%	\$ -
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 46,221
√ Roadway Drainage	Standard Internal System	30%	\$ 346,661
√ Illumination		11%	\$ 130,122
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 69,332
√ Sewer	Minor Adjustments	4%	\$ 46,221
√ Establish Turf / Erosion Con	trol	3%	\$ 34,666
√ Basic Landscaping		3%	\$ 34,666
√ Intersections (Signal, Roundabout,	etc.) Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:			
	Allow	ance Subtotal:	\$ 892,556
	Paving and Allow	ance Subtotal:	\$ 2,048,091
	Construction Contingency	15%	\$ 307,214
	Construction (	Cost TOTAL:	\$ 2,356,000

Impact Fee Project Cost Sum	mary		
Item Description	Notes:	Allowance	Item Cost
Construction:		-	\$ 2,356,000
Engineering/Survey/Testing:		20%	\$ 471,200
Mobilization		5%	\$ 117,800
Previous City contribution			\$ -
Other			
ROW/Easement Acquisition:	New Roadway Alignment	20%	\$ 471,200
	Impact Fee Project	ct Cost TOTAL:	\$ 3,416,000

**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.

**Project Information:** 

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc. updated: 10/2/2012

Description: Project No. Z-40

Name: Rendon / Forest-Hill (1)
Limits: 640' N of Chambers Creek Dr. to Shelby Rd.

Impact Fee Class: MA4D

Ultimate Class: Major Arterial

Length (If): 2,395
Service Area(s): Z, Everman

This project consists of the reconstruction of a two-lane asphalt facility into a four-lane divided major

arterial.

Roa	dway Construction Cost Project	ction						
No.	Item Description		Quantity	Unit	Un	it Price		Item Cost
108	Unclassified Street Excavation		10,644	су	\$	10.50	\$	111,767
208	6" Lime Stabilization (with Lime @ 32#/	/sy)	15,967	sy	\$	3.00	\$	47,900
308	11" Concrete Pavement		14,902	sy	\$	44.00	\$	655,698
408	6" Curb & Gutter		9,580	lf	\$	6.50	\$	62,270
508	4" Topsoil		11,975	sy	\$	5.00	\$	59,875
608	4' Concrete Sidewalk		19,160	sf	\$	5.00	\$	95,800
701	Turn Lanes and Median Openings		1,731	sy	\$	44.00	\$	76,181
		Pa	ving Consti	ruction (	Cost	Subtotal:	\$	1,109,490
Majo	r Construction Component Allowand	es:						
	Item Description	lotes			All	owance		Item Cost
V	Prep ROW	-		•		3%	\$	33,285
V	Traffic Control	onetruction Phase	Troffic Control			30/	Φ	33 285

Maj				
	Item Description	Notes	Allowance	Item Cost
	Prep ROW		3%	\$ 33,285
	Traffic Control	Construction Phase Traffic Control	3%	\$ 33,285
	Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	\$ 44,380
	Roadway Drainage	Standard Internal System	30%	\$ 332,847
$\checkmark$	Illumination		11%	\$ 124,937
	Special Drainage Structures	Minor Stream Crossing	\$ 250,000	\$ 250,000
	Water	Minor Adjustments	6%	\$ 66,569
	Sewer	Minor Adjustments	4%	\$ 44,380
	Establish Turf / Erosion Control		3%	\$ 33,285
	Basic Landscaping		3%	\$ 33,285
	Intersections (Signal, Roundabout, etc.)	None Anticipated	\$0	\$ -
	Other:		\$0	\$ -
		Allowa	nce Subtotal:	\$ 996,251
		Paving and Allowa	nce Subtotal:	\$ 2,105,742
		Construction Contingency:	15%	\$ 315,861
		Construction C	ost TOTAL:	\$ 2,422,000

Impact Fee Project Cost Summary											
Item Description	Notes:	Allowance		Item Cost							
Construction:		-	\$	2,422,000							
Engineering/Survey/Testing:		20%	\$	484,400							
Mobilization		5%	\$	121,100							
Previous City contribution			\$	-							
Other											
ROW/Easement Acquisition:	Existing Alignment	10%	\$	242,200							
	Impact Fee Proje	ect Cost TOTAL:	\$	3,270,000							

**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.

#### 2013 Transportation Impact Fee Study Conceptual Level Project Cost Projection

Kimley-Horn and Associates, Inc.

updated: 10/2/2012

**Project Information:** Description: Project No. **Z-41** Name: Rendon / Forest-Hill (2) This project consists of the Limits: Shelby Rd. to 80' S of future Risinger Rd. reconstruction of a two-lane asphalt Impact Fee Class: MA4D facility into a four-lane divided major **Ultimate Class:** Major Arterial arterial. Length (If): 2,640 Service Area(s): Z, ETJ

Roa	Roadway Construction Cost Projection												
No.	Item Description	Quantity	Unit	Un	it Price		Item Cost						
108	Unclassified Street Excavation	11,733	су	\$	10.50	\$	123,200						
208	6" Lime Stabilization (with Lime @ 32#/sy)	17,600	sy	\$	3.00	\$	52,800						
308	11" Concrete Pavement	16,427	sy	\$	44.00	\$	722,773						
408	6" Curb & Gutter	10,560	lf	\$	6.50	\$	68,640						
508	4" Topsoil	13,200	sy	\$	5.00	\$	66,000						
608	4' Concrete Sidewalk	21,120	sf	\$	5.00	\$	105,600						
701	Turn Lanes and Median Openings	1,909	sy	\$	44.00	\$	83,974						
701	Turn Lanes and Median Openings	,	- /	\$	44.00	\$	83						

Paving Construction Cost Subtotal: \$ 1,222,987

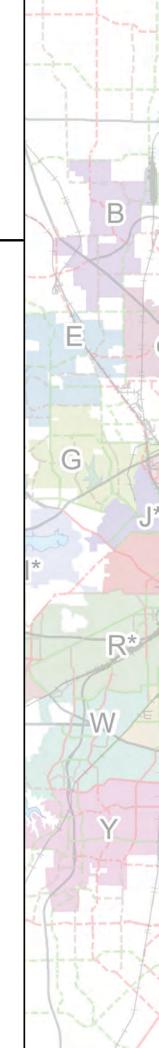
Major Construction Component Allow Item Description	Notes	Allowance	Item Cost
√ Prep ROW	1	3%	\$ 36,690
√ Traffic Control	Construction Phase Traffic Control	3%	\$ 36,690
√ Pavement Markings/Markers	Pavement Markings with Bike Lanes	4%	48,919
√ Roadway Drainage	Standard Internal System	30%	\$ 366,896
√ Illumination	,	11%	\$ 137,717
Special Drainage Structures	None Anticipated	\$ -	\$ -
√ Water	Minor Adjustments	6%	\$ 73,379
√ Sewer	Minor Adjustments	4%	\$ 48,919
√ Establish Turf / Erosion Control		3%	\$ 36,690
√ Basic Landscaping		3%	\$ 36,690
√ Intersections (Signal, Roundabout, etc.)	Assume Improvement per Half Mile	\$150,000	\$ 150,000
Other:		\$0	\$ -
	Allo	wance Subtotal:	\$ 972,590
		wance Subtotal:	\$ 2,195,578
	Construction Contingend	cy: 15%	\$ 329,337
	Construction	Cost TOTAL:	\$ 2,525,000

Impact Fee Project Cost Summary											
Item Description	Notes:	Allowance		Item Cost							
Construction:		-	\$	2,525,000							
Engineering/Survey/Testing:		20%	\$	505,000							
Mobilization		5%	\$	126,250							
Previous City contribution			\$	-							
Other											
ROW/Easement Acquisition:	Existing Alignment	10%	\$	252,500							
	Impact Fee Proje	ect Cost TOTAL:	\$	3,409,000							

**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.

# B

2013 Transportation Impact Fee Study **TIP Service Units of Supply** 



#### City of Fort Worth - 2013 Transportation Impact Fee Study

#### **TIP Service Units of Supply**

Service Area A 10/2/2012

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Project ID #	ROADWAY	LIMITS	LENGTH (MI)		IMPACT FEE CLASSIFICATION	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-1	Litsey Rd. (1)	IH-35W to Future N. Beach St.	0.35	4	MA4D	0	100%	700	980	0	980	\$ 2,340,000	\$ 2,340,000
A-2	Litsey Rd. (2)	Future N. Beach St. to Existing Litsey Rd.	0.19	4	MA4D	0	100%	700	532	0	532	\$ 1,267,000	\$ 1,267,000
A-3	Litsey Rd. (3)	425' E. of Elizabethtown C. Rd. to Cleveland Gibbs Rd.	0.53	4	MA4D	7	100%	700	1,484	4	1,480	\$ 3,583,000	\$ 3,583,000
A-4	Litsey Rd. (4)	Cleveland Gibbs Rd. to 470' E of Cleveland Gibbs Rd.	0.09	4	MA4D	7	100%	700	252	1	251	\$ 560,000	\$ 560,000
A-5	Litsey Rd. (5)	Henrietta Creek Bridge	0.15	4	MA4D	7	100%	700	420	1	419	\$ 1,600,000	\$ 1,600,000
A-6	Litsey Rd. (6)	Henrietta Creek Bridge to Seventeen Lakes Blvd.	0.20	4	MA4D	7	100%	700	560	1	559	\$ 1,273,000	\$ 1,273,000
A-7	Litsey Rd. (7)	270' E of Seventeen Lakes Blvd. to E. City Limits	0.37	4	MA4D	7	100%	700	1,036	2	1,034	\$ 2,309,000	\$ 2,309,000
A-8	Eagle Pkwy. (1)	Elizabethtown C. Rd. to 950' E. of Future Beach St.	0.50	4	MA4D-B	0	100%	700	1,400	0	1,400	\$ 3,709,000	\$ 3,709,000
A-9	Eagle Pkwy. (2)	W. City Limits to Henrietta Creek Rd.	0.54	4	MA4D-B	0	100%	700	1,512	0	1,512	\$ 3,974,000	\$ 3,974,000
A-10	Henrietta Creek Rd.	W. City Limits to Independence Pkwy.	0.31	4	MA4D-B (1/2)	39	100%	700	868	12	856	\$ 1,130,000	\$ 1,130,000
A-11	Westport Pkwy. (1)	IH-35W NBFR to 640' E. of IH-35W NBFR	0.12	4	MA4D-B (1/2)	535	100%	700	336	64	272	\$ 612,000	\$ 612,000
A-12	Westport Pkwy. (2)	640' E. of IH-35W NBFR to Old Denton Rd.	0.50	4	MA4D-B	535	100%	700	1,400	268	1,133	\$ 3,482,000	\$ 3,482,000
A-13	Westport Pkwy. (3)	Old Denton Rd. to Future N. Beach St.	0.50	4	MA4D-B	509	100%	700	1,400	255	1,146	\$ 3,888,000	\$ 3,888,000
A-14	Westport Pkwy. (4)	Future N. Beach St. to Alta Vista Rd.	0.41	4	MA4D-B	0	100%	700	1,148	0	1,148	\$ 2,610,000	\$ 2,610,000
A-15	Westport Pkwy. (5)	Alta Vista Rd. to Haslet-Roanoke Rd.	0.22	4	MA4D-B (1/2)	144	100%	700	616	32	584	\$ 806,000	\$ 806,000
A-16	Westport Pkwy. (6)	495' NW of SH 170 WBFR to SH 170 WBFR	0.09	4	MA4D-B	0	100%	700	252	0	252	\$ 642,000	\$ 642,000
A-17	Westport Pkwy. (7)	SH 170 EBFR to Existing Westport Pkwy.	0.40	4	MA4D-B	0	100%	700	1,120	0	1,120	\$ 2,732,000	\$ 2,732,000
A-18	Westport Pkwy. (8)	400' E of Park Vista Blvd. to 1370' W of Independence Pkw	0.37	4	MA4D-B (1/2)	122	100%	700	1,036	45	991	\$ 1,341,000	\$ 1,341,000
A-19, D-1	Timberland Blvd. (1)	Beach St. to 425' E of Lillybrook Ln.	0.39	4	MA4D-B	464	50%	700	546	90	456	\$ 544,917	\$ 272,459
A-20, D-2	Timberland Blvd. (2)	425' E of Lillybrook Ln. to Caylor Rd.	0.30	4	MA4D-B	82	50%	700	420	12	408	\$ 1,970,000	\$ 985,000
A-21, D-3	Timberland Blvd. (3)	Caylor Rd. To Park Vista Blvd.	0.29	4	MA4D-B	0	50%	700	406	0	406	\$ 1,571,000	\$ 785,500
A-22, D-5	Timberland Blvd. (5)	390' E of Harvest Oaks Dr. to E. City Limits	0.10	4	MA4D-B	0	50%	700	140	0	140	\$ 695,000	\$ 347,500
A-23	Old Denton Rd. (1)	Westport Pkwy. to SH 170 WB	0.52	4	MA4D-B	53	100%	700	1,456	28	1,428	\$ 3,605,000	\$ 3,605,000
A-24	N. Beach St. (1)	Litsey Rd. to Eagle Pkwy.	0.63	4	MA4D	0	100%	700	1,764	0	1,764	\$ 4,391,000	\$ 4,391,000
A-25	N. Beach St. (2)	Eagle Pkwy. to S. City Limits	0.35	4	MA4D-B	0	100%	700	980	0	980	\$ 2,388,000	\$ 2,388,000
A-26	N. Beach St. (3)	Westport Pkwy. to SH 170 WB	0.21	6	P6D-B	0	100%	700	882	0	882	\$ 1,844,000	\$ 1,844,000
A-27, D-23	N. Beach St. (4)	SH 170 EBFR to 410' N of Saratoga Downs	0.39	6	P6D-B	0	50%	700	819	0	819	\$ 3,383,000	\$ 1,691,500
A-28, D-24	N. Beach St. (5)	410' N of Saratoga Downs Way to Timberland Blvd.	0.70	6	P6D (1/3)	76	50%	700	1,470	27	1,443	\$ 1,378,000	\$ 689,000
A-29	Independence Pkwy. (1)	N. City Limits to Henrietta Creek Rd.	1.15	4	MA4D-B	0	100%	700	3,220	0	3,220	\$ 8,404,000	
A-30	Park Vista Blvd. (1)	Keller-Haslet Rd. to Timberland Blvd.	0.56	4	MA4D-B (1/2)	30	100%	700	1,568	17	1,551	\$ 2,282,000	\$ 2,282,000
SUBTOTAL	<u> </u>	<u> </u>							30,023	858	29,165	70,313,917	\$ 65,542,959

Transportation Impact Fee Study Cost (Per Service Area) \$

25,555

TOTAL COST IN SERVICE AREA A \$

65,568,514

#### City of Fort Worth - 2013 Transportation Impact Fee Study

#### TIP Service Units of Supply

Service Area AA

Project ID #	ROADWAY	LIMITS	LENGTH (MI)		IMPACT FEE CLASSIFICATION	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	Intermodal Pkwy.	FM 156 to Haslet County Line Rd	0.70	6	P6D (2/3)	268	100%	700	2,940	188	2,752	\$ 4,178,000	\$ 4,178,000
AA-2	Cleveland-Gibbs Rd.	N. City Limits to IH-35W SBFR	0.24	6	P6D (1/2)	141	100%	700	1,008	34	974	\$ 1,049,000	\$ 1,049,000
SUBTOTAL									3,948	221	3,727	5,227,000	\$ 5,227,000

Transportation Impact Fee Study Cost (Per Service Area) \$ 25,555

TOTAL COST IN SERVICE AREA AA \$ 5,252,555

#### City of Fort Worth - 2013 Transportation Impact Fee Study

#### **TIP Service Units of Supply**

Service Area B

Project ID #	ROADWAY	LIMITS	LENGTH (MI)		IMPACT FEE CLASSIFICATION	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 Pkwy.	W. City Limits to E. City Limits	1.69	4	MA4D-B	0	50%	700	2,366	0	2,366	\$ 12,769,000	\$ 6,384,500
B-2	Rancho Canyon Way (1)	Sendera Ranch Blvd. to Salida Rd.	1.82	4	M4U	0	100%	650	4,732	0	4,732	\$ 9,470,000	\$ 9,470,000
B-3	Rancho Canyon Way (2)	80' E of Cabo St. to Future John Day Rd.	0.25	4	M4U-B	0	100%	650	650	0	650	\$ 1,222,000	\$ 1,222,000
B-4	Avondale Haslet Rd. (1)	US 287 NBFR to Bates Aston Rd.	0.80	4	M4U	678	100%	650	2,080	542	1,538	\$ 3,205,608	\$ 3,205,608
B-5	Avondale Haslet Rd. (2)	N. Willow Springs Rd. to Willow Springs Rd.	0.36	4	M4U	678	100%	650	936	244	692	\$ 1,609,000	\$ 1,609,000
B-6	Avondale Haslet Rd. (3)	235' W. of Moonlake Way to Moonlake Way	0.04	4	M4U	732	100%	650	104	29	75	\$ 165,000	\$ 165,000
B-7	Avondale Haslet Rd. (4)	Moonlake Way to Sendera Ranch Blvd.	0.40	4	M4U	732	100%	650	1,040	293	747	\$ 1,808,000	\$ 1,808,000
B-8	Avondale Haslet Rd. (5)	Sendera Ranch Blvd. to Future Sendera Ranch Blvd.	0.11	4	M4U	0	100%	650	286	0	286	\$ 943,000	\$ 943,000
B-9	Avondale Haslet Rd. (6)	Future Sendera Ranch Blvd. to E. City Limits	0.52	4	M4U	0	100%	650	1,352	0	1,352	\$ 2,730,000	\$ 2,730,000
B-10	Blue Mound Rd.	Willow Springs Rd. to Future Wagley Robertson Rd.	1.00	4	M4U-B	279	100%	650	2,600	279	2,321	\$ 5,181,000	\$ 5,181,000
B-11	Sendera Ranch Blvd. (1)	Future Eagle Pkwy. to Rancho Canyon Way	0.92	6	P6D	0	100%	700	3,864	0	3,864	\$ 8,158,000	\$ 8,158,000
B-12	Sendera Ranch Blvd. (2)	Rancho Canyon Way to Suncatcher Way	0.53	6	P6D	0	50%	700	1,113	0	1,113	\$ 4,846,000	\$ 2,423,000
B-13	Sendera Ranch Blvd. (3)	Suncatcher Way to Snaffle Bit Trl.	0.69	6	P6D (1/3)	33	100%	700	2,898	23	2,875	\$ 1,354,000	\$ 1,354,000
B-14	Sendera Ranch Blvd. (4)	Snaffle Bit Trl. to Mustang Ridge Dr.	0.23	6	P6D (2/3)	124	100%	700	966	29	937	\$ 2,071,000	
B-15	Sendera Ranch Blvd. (5)	Mustang Ridge Dr. to Diamondback Ln.	0.25	6	P6D (1/3)	303	100%	700	1,050	76	974	\$ 481,000	\$ 481,000
B-16	Sendera Ranch Blvd. (6)	Diamondback Ln. to Future Sendera Ranch Blvd.	0.72	6	P6D (2/3)	451	100%	700	3,024	325	2,699	\$ 4,678,000	\$ 4,678,000
B-17	Sendera Ranch Blvd. (7)	Existing Sendera Ranch Blvd. to Future Avondale Haslet	0.21	6	P6D	0	100%	700	882	0	882	\$ 1,849,000	\$ 1,849,000
B-18	Sendera Ranch Blvd. (8)	Future Avondale Haslet to Blue Mound Rd.	1.93	6	P6D	0	100%	700	8,106	0	8,106	\$ 18,225,000	\$ 18,225,000
B-19	John Day Rd. (1)	N. City Limits to Rancho Canyon Way	1.78	4	MA4D-B	0	100%	700	4,984	0	4,984	\$ 13,392,000	\$ 13,392,000
B-20	John Day Rd. (2)	Rancho Canyon Way to S. City Limits	0.15	4	MA4D	0	100%	700	420	0	420	\$ 998,000	\$ 998,000
B-21	Willow Springs Rd. (1)	Avondale Haslet Rd. to 205' S. of Velda Kay Ln.	0.30	4	M4U-B	420	50%	650	390	63	327	\$ 1,426,000	\$ 713,000
B-22	Willow Springs Rd. (2)	205' S. of Velda Kay Ln. to Blue Mound Rd.	1.25	4	M4U-B	78	100%	650	3,250	97	3,153	\$ 6,462,000	\$ 6,462,000
B-23	Willow Springs Rd. (3)	Blue Mound Rd. to S. City Limits	0.93	4	M4U-B	78	100%	650	2,418	72	2,346	\$ 4,628,000	\$ 4,628,000
B-24, C-14	Wagley Robertson Rd. (1)	250' N. of US 287 to 125' N of Hawks Landing Rd.	0.41	4	MA4D	0	50%	700	574	0	574	\$ 7,067,000	\$ 3,533,500
SUBTOTAL										2,070	48,015	114,737,608	\$ 101,683,608

Transportation Impact Fee Study Cost (Per Service Area) \$

25,555

TOTAL COST IN SERVICE AREA B \$

101,709,163

#### **TIP Service Units of Supply**

Service Area C

C-1   Bonds Ranch Rd. (1)   Wagley Robertson Rd. to Foothill Dr.   O-12   4   MA4D-B   912   50%   700   168   55   113   1,156,000   \$ 579,000   C-2   Bonds Ranch Rd. (2)   Foothill Dr.   FM 156   1.39   4   MA4D-B   912   100%   700   2,800   802   1,998   \$ 7,368,000   \$ 7,368,000   \$ 7,368,000   C-3   Bonds Ranch Rd. (3)   FM 156 to Harmon Rd.   Nather Material Park (1)   Matrix Redwood Tri. to Golden Heights Rd.   O.34   4   MA4D-B   01   010%   700   2,800   802   1,998   \$ 7,368,000   \$ 7,368,000   C-5   Golden Triangle Blvd. (2)   Golden Heights Rd. to Existing Golden Triangle Blvd.   O.34   4   MA4D-B   0   100%   700   644   O   644   \$ 1,565,000   \$ 1,565,000   C-6   Heritage Trace Pkwy. (3)   Wagley Robertson Rd. to 220 SW of Drovers View Tri.   1.43   4   MA4D-B   0   100%   700   4.004   O   4.004   0   644   \$ 1,565,000   \$ 1,565,000   C-7   Heritage Trace Pkwy. (4)   FM 156 to 130 Sof Creosote Dr.   O.39   4   MA4D-B   0   100%   700   2,604   O   2,604   \$ 9,972,000   \$ 9,972,	OCI VICE	AI CU O												
C-2 Bonds Ranch Rd. (2) Foothill Dr. to FM 156 C-3 Bonds Ranch Rd. (2) Foothill Dr. to FM 156 C-3 Bonds Ranch Rd. (3) FM 156 to Harmon Rd. 1.00 4 MAAD-B 902 100% 700 2,800 802 1,988 8 7,388,000 \$ 7,388,000 C-4 Golden Triangle Blivd. (1) Misty Redwood Trl. to Golden Heights Rd. 0.34 4 MAAD-B 102 100% 700 952 0 952 \$ 1,635,000 \$ 1,635,000 C-5 Golden Triangle Blivd. (2) Golden Heights Rd. to Existing Golden Triangle Blivd. (2) Golden Heights Rd. to Existing Golden Triangle Blivd. (2) Golden Heights Rd. to Existing Golden Triangle Blivd. (2) Golden Heights Rd. to Existing Golden Triangle Blivd. (3) Golden Heights Rd. to Existing Golden Triangle Blivd. (4) Golden Heights Rd. to Existing Golden Triangle Blivd. (5) Golden Heights Rd. to Existing Golden Triangle Blivd. (6) Golden Heights Rd. to Existing Golden Triangle Blivd. (7) Golden Heights Rd. to Existing Golden Triangle Blivd. (7) Golden Heights Rd. to Existing Golden Triangle Blivd. (7) Golden Heights Rd. to Existing Golden Triangle Blivd. (8) Golden Trian	Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	SERVICE	CAPACITY PK-HR	SUPPLY PK-HR	TOTAL DEMAND	CAPACITY PK-HR		COST IN SERVICE
C-3   Bonds Ranch Rd. (3)   FM 156 to Harmon Rd.   1.00   4   MA4D-B   802   100%   700   2,800   802   1,988   \$ 7,388,000   \$ 7,388,000   C-5   C-5   Golden Triangle Blvd. (1)   Misty Redwood Tit. to Golden Heights Rd.   0.34   4   MA4D-B   100%   700   644   0   644   \$ 1,656,000   \$ 1,655,000   C-5   Golden Triangle Blvd. (2)   Golden Heights Rd. to Existing Golden Triangle Blvd.   0.23   4   MA4D-B   0   100%   700   644   0   644   \$ 1,656,000   \$ 1,655,000   C-7   Heritage Trace Pkwy. (3)   Wagley Robertson Rd. to 220° SW of Drovers View Trl.   1.43   4   MA4D-B   0   100%   700   4,004   0   4,004   5 12,315,000   \$ 1,255,000   C-7   Heritage Trace Pkwy. (4)   FM 156 to 130° S of Crecoste Dr.   0.93   4   MA4D-B   0   100%   700   2,604   0   2,264   \$ 9,972,000   \$ 9,972,000   C-8   Heritage Trace Pkwy. (5)   Harmon Rd. to Existing Harmor Rd. to Existing Attached the Company of the		Bonds Ranch Rd. (1)	Wagley Robertson Rd. to Foothill Dr.	0.12	4	MA4D-B	912	50%	700	168	55	113		\$ 579,000
C-4 Golden Triangle Blvd. (1) Misty Redwood Tri. to Golden Heights Rd. to Existing Golden Triangle Blvd. (2) Golden Heights Rd. to Existing Golden Triangle Blvd. (3) 4 MAD-B (10) 100% 700 644 0 644 \$ 1,565,000 \$ 1,655,000 C-6 Heiritage Trace Pkwy. (4) FM 156 to 130 Sto. Cresoste Dr. (5) FM 156 to 150 Sto. Cresoste Dr					4									\$ 10,340,000
C-5 Golden Triangle Blvd. (2) Golden Heights Rd. to Existing Golden Triangle Blvd. 0.23 4 MAD-B 0 100% 700 644 0 644 0 54004 \$ 1,565,000 \$ 1,565,000 C-7 Heritage Trace Pkwy. (4) FM 156 to 130° S of Creosote Dr. 0.93 4 MAD-B 0 100% 700 2,604 0 2,604 \$ 9,972,000 \$ 9,972,000 C-7 Heritage Trace Pkwy. (5) Hammor Rd. to II-M3W SBFR 0.80 6 P6D (7) 1,014 100% 700 3,360 833 2,527 \$ 1,561,000 \$ 9,972,000 C-9 N. Tarrant Pkwy. (5) Hammor Rd. to II-M3W SBFR 0.80 6 P6D (7) 1,014 100% 700 3,360 833 2,527 \$ 1,561,000 \$ 9,972,000 C-9 N. Tarrant Pkwy. (1) Existing Harmor Rd. to Existing N. Tarrant Pkwy. 0.41 6 P6D-B 0 100% 700 1,722 0 1,722 \$ 9,779,000 \$ 9,779,000 C-11, F-1 Basswood Bivd. (1) Blue Mound Rd. (FM 156) to 960° E. of FM 156 0 1.84 MAD-B (1/2) 0 50% 700 1,003 0 1,003 \$ 6,040,000 \$ 3,024,000 C-12, F-2 Basswood Bivd. (2) 960° E. of FM 156 to Horseman Rd. 0.72 4 MAD-B (1/2) 0 50% 700 1,008 0 1,008 \$ 6,040,000 \$ 3,024,000 C-13, F-3 Basswood Bivd. (2) 960° E. of FM 156 to Horseman Rd. 0.72 4 MAD-B (1/2) 0 50% 700 406 3 403 \$ 1,006 \$ 6,040,000 \$ 3,024,000 C-15, F-1 Wagley Robertson Rd. (1) 250° N. of US 81 to 525° N of Hawks Landing Rd. 0.41 4 MAD-B (1/2) 20 50% 700 406 3 403 \$ 1,006 \$ 6,040,000 \$ 3,024,000 C-16 Wagley Robertson Rd. (2) 255° N of Hawks Landing Rd. 0.41 4 MAD-B (1/2) 20 50% 700 574 0 574 \$ 7,067,000 \$ 3,033,500 C-16 Wagley Robertson Rd. (3) 155° N of Hawks Landing Rd. to 80° S of Daty Ln. 0.43 4 MAD-B (1/2) 3 50% 700 602 1 601 \$ 1,531,000 \$ 765,500 C-16 Wagley Robertson Rd. (4) Hilwood Bivd. to 40° N of ConeInower Trl. 0.63 4 MAD-B (1/2) 3 50% 700 602 1 601 \$ 1,531,000 \$ 765,500 C-19, E-14 Wagley Robertson Rd. (4) Hilwood Bivd. to 40° N of ConeInower Trl. 0.63 4 MAD-B (1/2) 3 50% 700 602 1 601 \$ 1,531,000 \$ 765,500 C-19, E-14 Wagley Robertson Rd. (5) 155° N of Hawks Landing Rd. to 80° S of Daty Ln. 0.43 4 MAD-B (1/2) 3 50% 700 602 1 601 \$ 1,176 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 3,638,0		Bonds Ranch Rd. (3)	FM 156 to Harmon Rd.	1.00	4	MA4D-B	802	100%			802			\$ 7,368,000
C-6		Golden Triangle Blvd. (1)	Misty Redwood Trl. to Golden Heights Rd.		4		0				0			\$ 1,635,000
C-7		Golden Triangle Blvd. (2)	Golden Heights Rd. to Existing Golden Triangle Blvd.	0.23	4	MA4D-B	0	100%		644	0	644	\$ 1,565,000	\$ 1,565,000
C-8 Heritage Trace Pkwy. (5) Harmon Rd. to IH-35W SBFR		Heritage Trace Pkwy. (3)	Wagley Robertson Rd. to 220' SW of Drovers View Trl.	1.43	4	MA4D-B	0	100%		4,004	0	4,004		\$ 12,315,000
C-9 N. Tarrant Pkwy. (1) Existing Harmon Rd. to Existing N. Tarrant Pkwy. 0.41 6 P6D-B 0 100% 700 1,722 0 1,722 \$ 9,779,000 \$ 9,779,000 \$ 9,779,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 5,670,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,670,000 \$ 1,932 0 1,932 \$ 5,070,000 \$ 1,932 0 1,932 0 1,932 \$ 1,932 0 1,932 0 1,932 0 1,932 0 1,932 0 1,932 1 1,932 0 1,932 1		Heritage Trace Pkwy. (4)	FM 156 to 130' S of Creosote Dr.	0.93	4	MA4D-B	0	100%		2,604			\$ 9,972,000	\$ 9,972,000
C-10 Balley Boswell Rd. (3) FM 156 to Horseman Rd. 0.69 4 MA4D 0 100% 700 1.932 0 1.932 \$ 5,670,000 \$ 5,670,000 \$ C-11, F-1 Basswood Blvd. (1) Blue Mound Rd. (FM 156) to 960° E. of FM 156 0 0.18 4 MA4D-B (1/2) 0 50% 700 1.008 0 1.008 \$ 6,048,000 \$ 332,00 \$ 1.72		Heritage Trace Pkwy. (5)	Harmon Rd. to IH-35W SBFR	0.80	6	P6D (1/3)	1,041	100%	700	3,360	833	2,527	\$ 1,561,000	\$ 1,561,000
C-11, F-1 Basswood Blvd. (1) Blue Mound Rd. (FM 156) to 960' E. of FM 156		N. Tarrant Pkwy. (1)	Existing Harmon Rd. to Existing N. Tarrant Pkwy.	0.41	6	P6D-B	0	100%	700	1,722	0	1,722	\$ 9,779,000	\$ 9,779,000
C-12, F-2 Basswood Blvd. (2) Basswood Blvd. (3) Horseman Rd. 0. 7.72 4 MA4D-B 0 50% 700 1,008 0 1,008 \$ 6,048,000 \$ 3,024,000 C-13, F-3 Basswood Blvd. (3) Horseman Rd. 10 Candler Dr. 0.29 4 MA4D-B (1/2) 20 50% 700 406 3 403 \$ 1,061,000 \$ 530,304,000 C-13, F-3 Wagley Robertson Rd. (1) 250° N. of US 81 to 525° N of Hawks Landing Rd. 0.41 4 MA4D 0 50% 700 574 0 574 \$ 7,067,000 \$ 3353,500 C-15 Wagley Robertson Rd. (2) 525° N of Hawks Landing Rd. 125° N of Maks Randing Rd. 125°		Bailey Boswell Rd. (3)	FM 156 to Horseman Rd.	0.69	4	MA4D	0	100%			0		\$ 5,670,000	\$ 5,670,000
C-13, F-3 Basswood Blvd. (3) Horseman Rd. to Candler Dr. 0.29 4 MA4D-B (1/2) 20 50% 700 406 3 403 \$ 1,061,000 \$ 530,500 B-24, C-14 Wagley Robertson Rd. (1) 250° N. of US 81 to 525° N of Hawks Landing Rd. 0.41 4 MA4D 0 50% 700 574 0 574 0 574 \$ 7,067,000 \$ 276,000 C-15 Wagley Robertson Rd. (2) 525° N of Hawks Landing Rd. to 125° N of Hawks Landing Rd. to 80° S of Darby Ln. 0.43 4 MA4D 0 50% 700 112 0 112 \$ 552,000 \$ 276,000 C-16 Wagley Robertson Rd. (3) 125° N of Hawks Landing Rd. to 80° S of Darby Ln. 0.43 4 MA4D (1/2) 3 50% 700 602 1 601 \$ 1,531,000 \$ 765,500 C-17,E-13 Wagley Robertson Rd. (4) Hillwood Blvd. to 440° N of Conellower Trl. 0.63 4 MA4D-B 216 50% 700 882 68 814 \$ 5,088,000 \$ 2,544,000 C-19,E-14 Wagley Robertson Rd. (6) 150° N of Mystic River Trl. to 700° S of Mystic River Trl. 0.16 4 MA4D-B 216 50% 700 824 29 195 \$ 1,023,000 \$ 511,500 C-20 Harmon Rd. (1) Keller Hicks Rd. to Existing Harmon Rd. 0.44 4 MA4D-B 0 100% 700 1,232 0 1,232 \$ 2,986,000 \$ 2,986,000 C-21 Harmon Rd. (3) 260° N. of Golden Triangle Blvd. to Future Golden Triangle Golden Triangle Blvd. to	C-11, F-1	Basswood Blvd. (1)	Blue Mound Rd. (FM 156) to 960' E. of FM 156	0.18	4	MA4D-B (1/2)	0	50%	700	252	0	252	\$ 664,000	\$ 332,000
B-24, C-14 Wagley Robertson Rd. (1)			960' E. of FM 156 to Horseman Rd.		4		0	50%		1,008	0		\$ 6,048,000	\$ 3,024,000
C-15 Wagley Robertson Rd. (2) 525' N of Hawks Landing Rd.to 125' N of Hawks Landing Rd. to 80' S of Darby Ln. 0.43 4 MA4D 0 50% 700 602 1 601 \$ 1,531,000 \$ 765,500 \$ 276,000 \$ 1,176 \$ 1,531,000 \$ 1,176 \$ 1,531,000 \$ 1,176	C-13, F-3	Basswood Blvd. (3)	Horseman Rd. to Candler Dr.	0.29	4	MA4D-B (1/2)	20	50%			3			\$ 530,500
C-16 Wagley Robertson Rd. (3) 125' N of Hawks Landing Rd. to 80' S of Darby Ln. 0.43 4 MA4D (1/2) 3 50% 700 602 1 601 \$ 1,531,000 \$ 765,500 C-17, E-13 Wagley Robertson Rd. (4) Hillwood Blvd. to 440' N of Conellower Trl. 0.63 4 MA4D-B 216 50% 700 882 68 814 \$ 5,088,000 \$ 2,544,000 C-18, E-14 Wagley Robertson Rd. (5) 225' S. of Prairie Clover Trl. to 770 N-2 N-2 N-2 N-2 N-2 N-2 N-2 N-2 N-2 N-2	B-24, C-14	Wagley Robertson Rd. (1)	250' N. of US 81 to 525' N of Hawks Landing Rd.	0.41	4	MA4D	0	50%		574	0	574	\$ 7,067,000	\$ 3,533,500
C-17, E-13 Wagley Robertson Rd. (4) Hillwood Blvd. to 440' N of Coneflower Trl. 0.63 4 MA4D-B 216 50% 700 882 68 814 \$ 5,088,000 \$ 2,544,000 C-18 Wagley Robertson Rd. (5) 225 S. of Pairie Clover Trl. to Tarrant Pkwy. 0.42 4 MA4D 0 100% 700 1,176 0 1,176 \$ 3,638,000 \$ 3,638,000 \$ 5,254,000 C-19, E-14 Wagley Robertson Rd. (6) 150' N of Mystic River Trl. to 700' S of Mystic River Trl. 0.16 4 MA4D 362 50% 700 224 29 195 \$ 1,023,000 \$ 5,11,500 C-20 Harmon Rd. (1) Keller Hicks Rd. to Existing Harmon Rd. 0.44 4 MA4D-B 0 100% 700 1,232 0 1,232 \$ 2,986,000 \$ 2,986,000 C-21 Harmon Rd. (2) Future Harmon Alignment to 260' N. of Golden Triangle Blvd. to Future Golden Triangl	C-15	Wagley Robertson Rd. (2)	525' N of Hawks Landing Rd.to 125' N of Hawks Landing	0.08	4	MA4D	0	50%			0		\$ 552,000	\$ 276,000
C-18 Wagley Robertson Rd. (5) 225' S. of Prairie Clover Trl. to Tarrant Pkwy. 0.42 4 MA4D 0 100% 700 1,176 0 1,176 \$ 3,638,000 \$ 3,638,000 \$ 3,638,000 \$ 2,185 0 \$ 1,023,000 \$ 3,638,000 \$	C-16	Wagley Robertson Rd. (3)	125' N of Hawks Landing Rd. to 80' S of Darby Ln.	0.43	4	MA4D (1/2)	3	50%	700	602	1	601	\$ 1,531,000	\$ 765,500
C-19, E-14 Wagley Robertson Rd. (6) 150' N of Mystic River Trl. to 700' S of Mystic River Trl. 0.16 4 MA4D 362 50% 700 224 29 195 \$ 1,023,000 \$ 511,500 C-20 Harmon Rd. (1) Keller Hicks Rd. to Existing Harmon Rd. 0.44 4 MA4D-B 0 100% 700 1,232 0 1,232 \$ 2,986,000 \$ 2,986	C-17, E-13	Wagley Robertson Rd. (4)	Hillwood Blvd. to 440' N of Coneflower Trl.	0.63	4	MA4D-B	216	50%	700	882	68	814	\$ 5,088,000	\$ 2,544,000
C-20 Harmon Rd. (1) Keller Hicks Rd. to Existing Harmon Rd.	C-18	Wagley Robertson Rd. (5)	225' S. of Prairie Clover Trl. to Tarrant Pkwy.	0.42	4	MA4D	0	100%	700	1,176	0	1,176	\$ 3,638,000	\$ 3,638,000
C-21 Harmon Rd. (2) Future Harmon Alignment to 260' N. of Golden Triangle BN 0.18 4 MA4D-B 497 50% 700 252 45 207 \$ 1,588,000 \$ 794,000 C-22 Harmon Rd. (3) 260' N. of Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Golden Triangle Blvd. to Future Rd. (4) Bonds Ranch Rd. to 475' S. of Heritage Trace Pkwy. 0.74 4 MA4D-B (70 100% 700 2,072 486 1,586 \$ 2,938,000 \$ 2,938,0	C-19, E-14	Wagley Robertson Rd. (6)	150' N of Mystic River Trl. to 700' S of Mystic River Trl.	0.16	4	MA4D	362	50%	700	224	29	195	\$ 1,023,000	\$ 511,500
C-22 Harmon Rd. (3) 260' N. of Golden Triangle Blvd. to Future Golden Triangle 0.12 4 MA4D-B 0 100% 700 336 0 336 \$ 825,000 \$ 825,000 \$ C-23 Harmon Rd. (4) Bonds Ranch Rd. to 475' S. of Heritage Trace Pkwy. 0.74 4 MA4D-B (1/2) 657 100% 700 2,072 486 1,586 \$ 2,938,000 \$ 2,938,000 \$ 3,764,000 \$	C-20	Harmon Rd. (1)	Keller Hicks Rd. to Existing Harmon Rd.	0.44	4	MA4D-B	0	100%	700	1,232	0		\$ 2,986,000	\$ 2,986,000
C-23 Harmon Rd. (4) Bonds Ranch Rd. to 475 S. of Heritage Trace Pkwy. 0.74 4 MA4D-B (1/2) 657 100% 700 2,072 486 1,586 \$ 2,938,000 \$ 2,938	C-21	Harmon Rd. (2)	Future Harmon Alignment to 260' N. of Golden Triangle Blv	0.18	4	MA4D-B	497	50%	700	252	45	207	\$ 1,588,000	\$ 794,000
C-24 Harmon Rd. (5) 475 'S. of Heritage Trace Pkwy. to Presidio Vista Dr. 0.54 4 MA4D-B 708 100% 700 1,512 382 1,130 \$ 3,764,000 \$ 3,764,000 \$ 3,764,000 \$ 0.55 Harmon Rd. (6) Presidio Vista Dr. to US 287 SBFR 0.58 6 P6D-B 873 100% 700 2,436 506 1,930 \$ 5,040,000 \$ 5,040,000 \$ 0.50 Harmon Rd. (7) US 287 SBFR to Future N. Tarrant Pkwy. 0.17 6 P6D-B 0 100% 700 714 0 714 \$ 1,449,000 \$ 1,449,000 \$ 1,449,000 \$ 0.50 Harmon Rd. (8) Future N. Tarrant Pkwy. to Horseman Rd. 0.84 4 MA4D 0 100% 700 2,352 0 2,352 \$ 5,828,000 \$ 5,828,000 \$ 0.50 Harmon Rd. (8) Bailey Boswell Rd. to 600' N. of Canchim St. 0.37 4 M4U (1/2) 20 100% 650 962 7 955 \$ 1,237,000 \$ 1,237	C-22	Harmon Rd. (3)	260' N. of Golden Triangle Blvd. to Future Golden Triangle	0.12	4	MA4D-B	0	100%	700	336	0	336	\$ 825,000	\$ 825,000
C-25 Harmon Rd. (6) Presidio Vista Dr. to US 287 SBFR 0.58 6 P6D-B 873 100% 700 2,436 506 1,930 \$ 5,040,000 \$ 5,040,000 \$ C-26 Harmon Rd. (7) US 287 SBFR to Future N. Tarrant Pkwy. 0.17 6 P6D-B 0 100% 700 714 0 714 \$ 1,449,000 \$ 1,449,000 \$ 1,449,000 \$ C-27 Harmon Rd. (8) Future N. Tarrant Pkwy. to Horseman Rd. 0.84 4 MAAD 0 100% 700 2,352 0 2,352 \$ 5,828,000 \$ 5,828,000 \$ 1,237,000 \$ 1,	C-23	Harmon Rd. (4)	Bonds Ranch Rd. to 475' S. of Heritage Trace Pkwy.	0.74	4	MA4D-B (1/2)	657	100%	700	2,072	486	1,586	\$ 2,938,000	\$ 2,938,000
C-26 Harmon Rd. (7) US 287 SBFR to Future N. Tarrant Pkwy. 0.17 6 P6D-B 0 100% 700 714 0 714 \$ 1,449,000 \$ 1,449,000 \$ 2,352 \$ 1,449,000 \$	C-24	Harmon Rd. (5)	475' S. of Heritage Trace Pkwy. to Presidio Vista Dr.	0.54	4	MA4D-B	708	100%	700	1,512	382	1,130	\$ 3,764,000	\$ 3,764,000
C-27 Harmon Rd. (8) Future N. Tarrant Pkwy. to Horseman Rd. 0.84 4 MA4D 0 100% 700 2,352 0 2,352 \$ 5,828,000 \$ 5,828,000 \$ 5,828,000 \$ 5,828,000 \$ 5,828,000 \$ 5,828,000 \$ 1,237,000 \$ 1,2	C-25	Harmon Rd. (6)	Presidio Vista Dr. to US 287 SBFR	0.58	6	P6D-B	873	100%	700	2,436	506	1,930	\$ 5,040,000	\$ 5,040,000
C-27 Harmon Rd. (8) Future N. Tarrant Pkwy. to Horseman Rd. 0.84 4 MA4D 0 100% 700 2,352 0 2,352 \$ 5,828,000 \$ 5,828,000 \$ 5,828,000 \$ 5,828,000 \$ 5,828,000 \$ 5,828,000 \$ 1,237,000 \$ 1,2	C-26	Harmon Rd. (7)	US 287 SBFR to Future N. Tarrant Pkwy.	0.17	6	P6D-B	0	100%	700	714	0	714	\$ 1,449,000	\$ 1,449,000
C-28 Horseman Rd. Bailey Boswell Rd. to 600' N. of Canchim St. 0.37 4 M4U (1/2) 20 100% 650 962 7 955 \$ 1,237,000 \$ 1,237,000	C-27	Harmon Rd. (8)		0.84	4	MA4D	0	100%	700	2,352	0	2,352	\$ 5,828,000	\$ 5,828,000
	C-28	Horseman Rd.		0.37	4	M4U (1/2)	20	100%	650	962	7			
	SUBTOTAL		•							39,182	4,485	34,697	113,690,000	\$ 100,800,000

Transportation Impact Fee Study Cost (Per Service Area) \$

25,555

TOTAL COST IN SERVICE AREA C \$

25,555

#### **TIP Service Units of Supply**

Service Area D

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	CLASSIFICATION	PEAK HOUR VOLUME		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	AREA
A-19, D-1	Timberland Blvd. (1)	Beach St. to 425' E of Lillybrook Ln.	0.39	4	MA4D-B	464	50%	700	546	90	456	\$ 544,917	
A-20, D-2	Timberland Blvd. (2)	425' E of Lillybrook Ln. to Caylor Rd.	0.30	4	MA4D-B	82	50%	700	420	12	408	\$ 1,970,000	
A-21, D-3	Timberland Blvd. (3)	Caylor Rd. To Park Vista Blvd.	0.29	4	MA4D-B	0	50%	700	406	0	406	\$ 1,571,000	
D-4	Timberland Blvd. (4)	Park Vista Blvd. to 390' E of Harvest Oaks Dr.	0.52	4	MA4D-B (1/2)	30	100%	700	1,456	16	1,440	\$ 2,129,000	
A-22, D-5	Timberland Blvd. (5)	390' E of Harvest Oaks Dr. to E. City Limits	0.10	4	MA4D-B	0	50%	700	140	0	140	\$ 695,000	
D-6	Keller Hicks Rd. (1)	Riverside Dr. to 600' W of Ridgeview Cir.	1.03	4	M4U-B	592	100%	650	2,678	610	2,068	\$ 5,292,000	
D-7	Keller Hicks Rd. (2)	600' W. of Ridgeview Cir. to Alta Vista Rd.	0.44	4	M4U-B	592	100%	650	1,144	260	884	\$ 1,071,57	
D-8	Keller Hicks Rd. (3)	Alta Vista Rd. to Park Vista Blvd.	0.52	4	M4U-B	1,026	100%	650	1,352	534	818	\$ 1,304,000	
D-9	Keller Hicks Rd. (4)	Park Vista Blvd. to Katy Rd.	1.00	4	M4U-B	707	100%	650	2,600	707	1,893	\$ 5,176,000	
D-10	Golden Triangle Blvd. (3)	IH-35W NBFR to Katy Rd.	3.54	6	P6D (1/3)	1,732	100%	700	14,868	6,130	8,738	\$ 13,397,000	
D-11	Kroger Dr.	Park Vista Blvd. to US 377	0.31	4	MA4D-B (1/2)	1,519	100%	700	868	471	397	\$ 1,478,000	
D-12	N. Tarrant Pkwy. (2)	IH-35W NBFR to US 377	3.48	6	P6D (1/3)	2,559	100%	700	14,616	8,905	5,711	\$ 6,661,000	
D-13	Summerfields Blvd.	N Riverside Dr. to Cannonwood Dr.	0.18	4	M4U-B (1/2)	562	100%	650	468	101	367	\$ 410,000 \$ 1,188,000	
D-14	Old Denton Rd. (2)	SH 170 EB to 190' N of Hidden Valley Dr.	0.18	4	MA4D-B	291	100%	700	504	52	452	7 .,,	
D-15	Old Denton Rd. (3)	190' N of Hidden Valley Dr. to 135' S of San Fernando Dr.	0.17	4	MA4D-B (1/2)	300	100%	700	476	51	425	\$ 618,000	
D-16	Old Denton Rd. (4)	135' S of San Fernando Dr. to 325' N of Sawtimber Trl.	0.16	4	MA4D-B	358	100%	700	448	57	391	\$ 1,071,000	
D-17	N. Riverside Dr. (1)	Timberland Blvd. to Keller Hicks Rd.	0.20	4	MA4D-B (1/2)	288	100%	700	560	58	502	\$ 736,000	
D-18	N. Riverside Dr. (2)	Keller Hicks Rd. to 410' N of Golden Triangle Blvd.	0.38	4	MA4D-B (1/2)	576	100%	700	1,064	219	845	\$ 1,399,000	
D-19	N. Riverside Dr. (3)	410' N of Golden Triangle Blvd. to Golden Triangle Blvd.	0.08	4	MA4D-B	576	100%	700	224	46	178	\$ 950,000	
D-20	N. Riverside Dr. (4)	Dalton St. to N. Tarrant Pkwy.	0.98	4	MA4D-B	728	100%	700	2,744	713	2,031	\$ 6,726,000	
D-21	N. Riverside Dr. (5)	N. Tarrant Pkwy. to Summerfields Blvd.	0.71	4	MA4D-B (1/2)	652	100%	700	1,988	463	1,525	\$ 2,824,000	
D-22	N. Riverside Dr. (6)	Summerfields Blvd. to 710' S of Princess Victoria Ct.	0.29	4	MA4D-B (1/2)	766	100%	700	812	222	590	\$ 1,061,000	
A-27, D-23	N. Beach St. (4)	SH 170 EBFR to 410' N of Saratoga Downs Way	0.39	6	P6D-B	0	50%	700	819	0	819	\$ 3,383,000	
A-28, D-24	N. Beach St. (5)	410' N of Saratoga Downs to Timberland Blvd.	0.70	6	P6D (1/3)	76	50%	700	1,470	27	1,443	\$ 1,378,000	
D-25	N. Beach St. (6)	Timberland Blvd. to Keller Hicks Rd.	1.03	6	P6D (1/3)	990	100%	700	4,326	1,019	3,307	\$ 7,287,000	
D-26	N. Beach St. (7)	Keller Hicks Rd. to Golden Triangle Blvd.	0.75	6	P6D (1/3)	881	100%	700	3,150	661	2,489	\$ 7,861,000	
D-27	N. Beach St. (8)	Golden Triangle Blvd. to Vista Meadows Dr.	0.74	6	P6D (1/3)	1,074	100%	700	3,108	795	2,313	\$ 1,456,000	
D-28	N. Beach St. (9)	Vista Meadows Dr. to Alta Vista Rd.	0.18	6	P6D-B (2/3)	946	100%	700	756	170	586	\$ 1,393,000	
D-29	N. Beach St. (10)	Alta Vista Rd. to Heritage Trace Pkwy.	0.22	6	P6D-B	1,132	100%	700	924	249	675	\$ 1,835,000	
D-30	N. Beach St. (11)	Heritage Trace Pkwy. to Heritage Glen Dr.	0.47	6	P6D-B	1,152	100%	700	1,974	541	1,433	\$ 3,889,000	
D-31	N. Beach St. (12)	Heritage Glen Dr. to 155' S of Springview Ln.	0.65	6	P6D-B (2/3)	1,152	100%	700	2,730	749	1,981	\$ 3,864,000	
D-32	N. Beach St. (13)	155' S of Springview Ln. to 380' S of Spring Mist Cv.	0.14	6	P6D (1/3)	1,610	100%	700	588	225	363	\$ 198,000	
D-33	Park Vista Blvd. (2)	Timberland Blvd. to Caylor Rd.	0.18	4	MA4D-B	0	100%	700	504	0	504	\$ 1,240,000	
D-34	Park Vista Blvd. (3)	Keller Hicks Rd. to Golden Triangle Blvd.	0.51	4	MA4D-B	0	100%	700	1,428	0	1,428	\$ 3,663,000	
D-35	Park Vista Blvd. (4)	Golden Triangle Blvd. to Ray White Rd./Wyndrook St.	0.51	4	MA4D-B	0	100%	700	1,428	0	1,428	\$ 4,151,000	
D-36	Ray White Rd. (1)	Wyndrook St. to 320' S of Pinellas Ave.	0.15	4	MA4D-B	448	100%	700	420	67	353	\$ 979,000	
D-37	Ray White Rd. (2)	320' S of Pinellas Ave. to 230' N of Wall Price Keller Rd.	0.32	4	MA4D-B	448	50%	700	448	72	376	\$ 2,067,000	\$ 1,033,500
D-38	Ray White Rd. (3)	230' N of Wall Price Keller Rd. to Wall Price Keller Rd.	0.04	4	MA4D-B	855	100%	700	112	34	78	\$ 284,000	\$ 284,000
D-39	Ray White Rd. (4)	Wall Price Keller Rd. to 145' N of Archer Dr.	0.12	4	MA4D-B	855	50%	700	168	51	117	\$ 763,000	\$ 381,500
D-40	Ray White Rd. (5)	145' N of Archer Dr. to 170' N of Mirage Dr.	0.09	4	MA4D-B	855	100%	700	252	77	175	\$ 616,000	\$ 616,000
D-41	Ray White Rd. (6)	Shiver Rd. to N. Tarrant Pkwy.	0.50	4	MA4D-B (1/2)	1,233	100%	700	1,400	617	784	\$ 2,283,000	\$ 2,283,000
SUBTOTAL	, , ,	•							76,387	25,072	51,315	106,862,494	\$ 100,676,536
										ation Impost		4 (Day Carrian Area	

Transportation Impact Fee Study Cost (Per Service Area) \$

25,555 100,702,091

TOTAL COST IN SERVICE AREA D \$

#### **TIP Service Units of Supply**

Service Area E

0011100	Alou L												
Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	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	Heritage Trace Pkwy. (1)	Existing Boat Club Rd. to City Limits	1.39	4	MA4D-B	0	100%	700	3,892	0	3,892	\$ 9,999,000	\$ 9,999,000
E-2	Heritage Trace Pkwy. (2)	Old Decatur to 250' W. of Wagley Robertson Rd.	1.39	4	MA4D-B	0	100%	700	3,892	0	3,892	\$ 10,772,000	\$ 10,772,000
E-3	Park Dr. (1)	Boat Club Rd. to Park Dr. (Right-angle turn)	1.01	4	M4U	37	100%	650	2,626	37	2,589	\$ 5,053,000	\$ 5,053,000
E-4	Park Dr. (2)	Park Dr. (Right-angle turn) to 815' E. of Park Dr.	0.15	4	M4U (1/2)	38	100%	650	390	6	384	\$ 351,000	\$ 351,000
E-5	Park Dr. (3)	815' E. of Park Dr. to Old Decatur Rd.	0.72	4	M4U	0	100%	650	1,872	0	1,872	\$ 3,699,000	\$ 3,699,000
E-6	Robertson Rd.	680' W. of Lake Country Dr. to Boat Club Rd.	0.87	4	M4U	445	100%	650	2,262	387	1,875	\$ 4,155,000	\$ 4,155,000
E-7	Lake Country Dr. (1)	Western Lakes Dr. to Eagle Ranch Blvd.	0.57	4	M4U	0	100%	650	1,482	0	1,482	\$ 2,817,000	\$ 2,817,000
E-8	Lake Country Dr. (2)	Eagle Ranch Blvd. to Robertson Rd.	0.28	4	M4U	0	100%	650	728	0	728	\$ 1,274,000	\$ 1,274,000
E-9, G-1	W J Boaz Rd.	Boat Club Rd. to Old Decatur Rd.	2.05	4	M4U-B	483	50%	650	2,665	495	2,170	\$ 11,351,000	\$ 5,675,500
E-10	Boat Club Rd.	Bonds Ranch Rd. to Park Dr.	2.68	4	MA4D-B	0	100%	700	7,504	0	7,504	\$ 21,254,000	\$ 21,254,000
E-11	Old Decatur Rd. (1)	285' S. of Milo Dr. to 200' S. of Millstone Trl.	0.17	4	M4U-B	275	100%	650	442	47	395	\$ 718,000	\$ 718,000
E-12	Willow Springs Rd.	1680' S. of Hicks Rd. to Future Heritage Trace Pkwy.	1.54	4	M4U-B	0	100%	650	4,004	0	4,004	\$ 8,803,000	\$ 8,803,000
C-17, E-13	Wagley Robertson Rd. (4)	Hillwood Blvd. to 440' N of Coneflower Trl.	0.63	4	MA4D-B	217	50%	700	882	68	814	\$ 5,088,000	\$ 2,544,000
C-19, E-14	Wagley Robertson Rd. (6)	150' N of Mystic River Trl. to 700' S of Mystic River Trl.	0.16	4	MA4D	362	50%	700	224	29	195	\$ 1,023,000	
E-15	Bailey Boswell Rd. (1)	Boat Club Rd. to 165' E. of Axis Deer Run	0.38	4	MA4D-B	1,059	50%	700	532	201	331	\$ 2,448,000	\$ 1,224,000
E-16	Bailey Boswell Rd. (2)	40' W. of Bowman Roberts Rd. to 30' W. of Old Decatur R	1.52	4	MA4D-B	1,794	100%	700	4,256	2,726	1,530	\$ 10,008,000	\$ 10,008,000
SUBTOTAL									37,653	3,997	33,656	98,813,000	\$ 88,858,000

Transportation Impact Fee Study Cost (Per Service Area) \$
TOTAL COST IN SERVICE AREA E \$

\$ 25,555 \$ 88,883,555

#### **TIP Service Units of Supply**

Service Area F

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	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-11, F-1	Basswood Blvd. (1)	Blue Mound Rd. (FM 156) to 960' E. of FM 156	0.18	4	MA4D-B (1/2)	0	50%	700	252	0	252	\$ 664,000	\$ 332,000
C-12, F-2	Basswood Blvd. (2)	960' E. of FM 156 to Horseman Rd.	0.72	4	MA4D-B	0	50%	700	1,008	0	1,008	\$ 6,048,000	\$ 3,024,000
C-13, F-3	Basswood Blvd. (3)	Horseman Rd. to Candler Dr.	0.29	4	MA4D-B (1/2)	20	50%	700	406	3	403	\$ 1,061,000	\$ 530,500
F-4	Western Center Blvd. (1)	Blue Mound Rd. (FM 156) to 410' E. of FM 156	0.08	6	P6D	2,377	100%	700	336	190	146	\$ 636,000	\$ 636,000
F-5	Western Center Blvd. (2)	410' E. of FM 156 to Mark IV Pkwy	0.50	6	P6D (1/3)	2,377	100%	700	2,100	1,189	912	\$ 974,000	\$ 974,000
F-6	Western Center Blvd. (3)	Sandshell Blvd. to Riverside Dr.	0.27	6	P6D (1/6)	1,969	100%	700	1,134	532	602	\$ 304,000	\$ 304,000
F-7	Western Center Blvd. (4)	Riverside Dr. to 980' E. of Riverside Dr.	0.19	6	P6D (1/3)	1,494	100%	700	798	284	514	\$ 364,000	\$ 364,000
F-8	Western Center Blvd. (5)	605' W. of Bayberry Dr. to Beach St.	0.62	6	P6D (1/3)	2,474	100%	700	2,604	1,534	1,070	\$ 1,208,000	\$ 1,208,000
F-9	Cantrell Sansom Rd. (1)	455' W of Nafex Way to 145' W of Maiden Ln.	0.21	4	MA4D-B	252	100%	700	588	53	535	\$ 1,748,000	\$ 1,748,000
F-10	Cantrell Sansom Rd. (2)	145' W of Maiden Ln. to 190 E. of Deerfoot Trl.	0.21	4	MA4D-B (1/2)	376	100%	700	588	79	509	\$ 760,000	\$ 760,000
F-11	Cantrell Sansom Rd. (3)	195' W. of Lionfish Way to Mark IV Pkwy.	0.13	4	MA4D-B (1/2)	376	100%	700	364	49	315	\$ 481,000	\$ 481,000
F-12	Cantrell Sansom Rd. (4)	Mark IV Pkwy. to Old Denton Rd.	0.32	4	MA4D-B	545	100%	700	896	174	722	\$ 1,941,000	\$ 1,941,000
F-13	Cantrell Sansom Rd. (5)	Old Denton Rd. to Future IH-35W SBFR	0.15	4	MA4D-B	0	100%	700	420	0	420	\$ 1,059,000	\$ 1,059,000
F-14	Northeast Pkwy.	Superior Pkwy. to Mark IV Pkwy.	0.20	4	M4U	0	100%	650	520	0	520	\$ 1,232,000	\$ 1,232,000
F-15	Meacham Blvd. (1)	315' E. of Blue Mound Rd. to RR Bridge	0.46	4	MA4D-B (1/2)	1,077	100%	700	1,288	495	793	\$ 1,693,000	\$ 1,693,000
F-16	Meacham Blvd. (2)	Deen Rd. to 590' W of Gemini Pl.	0.51	6	P6D-B (1/2)	2,008	100%	700	2,142	1,024	1,118	\$ 2,520,000	\$ 2,520,000
F-17	Meacham Blvd. (3)	Little Fossil Creek Bridge to Beach St.	0.89	6	P6D (1/3)	1,554	100%	700	3,738	1,383	2,355	\$ 1,741,000	\$ 1,741,000
F-18	Long Ave Bridge	700' W. of UP RR to Half Moon Dr.	0.32	4	MA4D-B	0	100%	700	896	0	896	\$ 5,430,000	\$ 5,430,000
F-19	Robert W. Downing Dr. (1)	Basswood Blvd. to 1,245' N. of Lou Menk Dr.	0.15	4	MA4D-B	0	100%	700	420	0	420	\$ 1,045,000	\$ 1,045,000
F-20	Robert W. Downing Dr. (2)	1,245' N. of Lou Menk Dr. to 230' N. of Lou Menk Dr.	0.19	4	MA4D-B (1/2)	622	100%	700	532	118	414	\$ 702,000	\$ 702,000
F-21	Lone Star Blvd.	Existing Dead End to 800' N. of Meacham Blvd.	0.68	4	M4U	0	100%	650	1,768	0	1,768	\$ 4,211,000	\$ 4,211,000
F-22	Mark IV Pkwy.	Cantrell Sansom Rd. to Loop 820 WBFR	0.52	4	MA4D-B (1/2)	884	100%	700	1,456	460	996	\$ 2,144,000	\$ 2,144,000
F-23	Old Denton Rd.	Staybridge Pl. to Cantrell Sansom Rd.	0.61	4	M4U (1/2)	1,030	100%	650	1,586	628	958	\$ 1,625,000	\$ 1,625,000
F-24	Sylvania Ave.	150' of Melody Hills Dr. to Quorum Dr.	0.35	4	M4U	113	100%	650	910	40	870	\$ 1,580,000	\$ 1,580,000
F-25	Riverside Dr. Bridge	Stone Creek Pkwy. to Existing Riverside Dr.	0.19	4	MA4D-B	0	100%	700	532	0	532	\$ 6,000,000	\$ 6,000,000
F-26	N. Beach St. (14)	Fossil Creek to Sandshell Blvd.	0.56	6	P6D (1/3)	2,984	100%	700	2,352	1,671	681	\$ 1,104,000	\$ 1,104,000
SUBTOTAL	• •								29.634	9.905	19.729	48.275.000	\$ 44,388,500

Transportation Impact Fee Study Cost (Per Service Area) \$

TOTAL COST IN SERVICE AREA F \$ 4

25,555 44,414,055

#### **TIP Service Units of Supply**

Service Area G

	71104 0												
Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	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-9, G-1	W J Boaz Rd.	Boat Club Rd. to Old Decatur Rd.	2.05	4	M4U-B	483	50%	650	2,665	495	2,170	\$ 11,351,000	\$ 5,675,500
G-2	Cromwell Marine Creek Rd. (1)	Ten Mile Bridge Rd. to N. City Limits	0.74	4	M4U	0	100%	650	1,924	0	1,924	\$ 3,771,000	\$ 3,771,000
G-3	Cromwell Marine Creek Rd. (2)	Boat Club Rd. to Chesterfield Dr.	1.21	4	MA4D-B	829	100%	700	3,388	1,003	2,385	\$ 8,747,000	\$ 8,747,000
G-4	Cromwell Marine Creek Rd. (3)	360' E. of Crystal Lake Dr. to Stonewater Bend Tr.	0.20	4	MA4D-B	985	100%	700	560	197	363	\$ 1,605,000	\$ 1,605,000
G-5	Cromwell Marine Creek Rd. (4)	Stonewater Bend Tr. to Marine Creek Pkwy.	0.58	4	MA4D-B	0	100%	700	1,624	0	1,624	\$ 4,521,000	\$ 4,521,000
G-6	Longhorn Rd.	Marine Creek Pkwy. to Old Decatur Rd.	0.24	4	MA4D-B	163	100%	700	672	39	633	\$ 1,563,000	\$ 1,563,000
G-7	Ten Mile Bridge Rd. (1)	W. City Limits to Boat Club Rd.	1.09	4	M4U-B	309	100%	650	2,834	337	2,497	\$ 5,600,000	\$ 5,600,000
G-8	Ten Mile Bridge Rd. (2)	Boat Club Rd. to Bowman Roberts Rd.	0.55	4	M4U-B	158	100%	650	1,430	87	1,343	\$ 2,842,000	\$ 2,842,000
G-9	Ten Mile Bridge Rd. (3)	Westgate Dr. to Huffines Blvd.	0.41	4	M4U-B	253	100%	650	1,066	104	962	\$ 1,916,000	\$ 1,916,000
G-10	Hodgkins Rd.	Ten Mile Bridge Rd. to 105' S. of Hatch Rd.	1.03	4	M4U	144	100%	650	2,678	148	2,530	\$ 5,141,000	\$ 5,141,000
G-11	Huffines Blvd. (1)	330' S. of Cromwell Marine Creek Rd. to 135' S. of Sunrise	0.51	4	M4U-B (1/2)	243	100%	650	1,326	124	1,202	\$ 1,422,000	
G-12	Huffines Blvd. (2)	Texas Shiner Dr. to Sea Bass Dr.	0.33	4	M4U-B (1/2)	270	100%	650	858	89	769	\$ 775,000	
G-13	Marine Creek Pkwy. (1)	Old Decatur to Existing Cromwell Marine Creek Rd.	0.34	4	MA4D	0	100%	700	952	0	952	\$ 2,246,000	
G-14	Marine Creek Pkwy. (2)	Existing Cromwell Marine Creek Rd. to 420' N of Grayson F	0.77	4	MA4D-B	1,165	100%	700	2,156	897	1,259	\$ 5,210,000	\$ 5,210,000
G-15	Marine Creek Pkwy. (3)	Angle Ave. to Azle Ave.	0.98	4	MA4D	0	100%	700	2,744	0	2,744	\$ 7,154,000	\$ 7,154,000
G-16	Old Decatur Rd. (2)	River Rock Blvd. to IH-820 WBFR	0.30	4	M4U (1/2)	1,133	100%	650	780	340	440	\$ 672,000	\$ 672,000
G-17	Old Decatur Rd. (3)	IH-820 EBFR to Angle Ave.	0.80	4	M4U	597	100%	650	2,080	478	1,602	\$ 3,880,000	\$ 3,880,000
G-18	Delfin St	345' S. of IH-820 EBFR to Future Marine Creek Pkwy	0.70	4	M4U	0	100%	650	1,820	0	1,820	\$ 3,586,000	\$ 3,586,000
SUBTOTAL	•						•	,	31,557	4,337	27,220	72,002,000	\$ 66,326,500

Transportation Impact Fee Study Cost (Per Service Area) \$

25,555

TOTAL COST IN SERVICE AREA G \$

66,352,055

#### TIP Service Units of Supply

Service Area L

Project #	: ID	ROADWAY	LIMITS	LENGTH (MI)		IMPACT FEE CLASSIFICATION	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		E 1st St. (1)	N. Beach St. to 825' W of Oakland Blvd.	1.53	4	MA4D-B	511	100%	700	4,284	782	3,502	\$ 3,315,000	\$ 3,315,000
L-2		Randol Mill Rd. (1)	500' NE of Lake Havasu Tr. to 630' W of Woodhaven Blvd	0.77	4	MA4D-B	535	100%	700	2,156	412	1,744	\$ 5,222,000	\$ 5,222,000
SUBTO	TAL									6,440	1,194	5,246	\$ 8,537,000	\$ 8,537,000

Transportation Impact Fee Study Cost (Per Service Area) \$ 25,555

TOTAL COST IN SERVICE AREA L \$ 8,562,555

#### **TIP Service Units of Supply**

Service Area M

Project ID #	ROADWAY	LIMITS	LENGTH (MI)		IMPACT FEE CLASSIFICATION	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	Precinct Line Rd. (1)	Trinity Railway Express (City Limits) to Trinity Blvd.	0.34	4	MA4D-B	567	100%	700	952	193	759	\$ 962.000	\$ 962.000
M-2	Precinct Line Rd. (2)	Trinity Blvd. to Existing Randol Mill Rd.	1.74	4	MA4D-B	692	100%	700	4.872	1,205	3,667	\$ 10,837,000	\$ 10,837,000
M-3	Precinct Line Rd. (3)	Existing Randol Mill Rd. to Future Randol Mill Rd.	0.07	4	MA4D-B	0	100%	700	196	0	196	\$ 500,000	\$ 500,000
M-4	Norwood Dr. (1)	65' S. of SH 10 to 750' N of Trinity Blvd.	0.31	4	M4U	330	100%	650	806	102	704	\$ 1,754,000	\$ 1,754,000
M-5	Norwood Dr. (2)	750' N of Trinity Blvd. to Trinity Blvd.	0.14	4	M4U (1/2)	330	100%	650	364	46	318	\$ 323,000	\$ 323,000
M-6	Sandy Ln. (1)	Randol Mill Rd, to Winters St.	0.13	4	M4U	0	100%	650	338	0	338	\$ 1.051.000	\$ 1.051.000
M-7	Sandy Ln. (2)	Winters St. to John T. White Rd.	0.92	4	M4U-B	318	100%	650	2.392	292	2.100	\$ 4,546,000	\$ 4,546,000
M-8	Sandy Ln. (3)	John T. White Rd. to IH-30 EB	0.45	4	M4U-B	324	100%	650	1,170	146	1.024	\$ 2,773,000	\$ 2,773,000
M-9	Cooks Ln. (1)	Future Randol Mill Rd. to Existing Cooks Ln.	0.59	4	MA4D-B	0	100%	700	1.652	0	1,652	\$ 4,293,000	\$ 4,293,000
M-10	Cooks Ln. (2)	Future Cooks Ln. Alignment to Lowery Rd.	0.12	4	MA4D-B	220	100%	700	336	26	310	\$ 788,000	\$ 788,000
M-11	Cooks Ln. (3)	Lowery Rd. to 545' N. of Meadow View Tr.	0.18	4	MA4D-B (1/2)	220	100%	700	504	40	464	\$ 357,000	\$ 357,000
M-12	Cooks Ln. (4)	545' N. of Meadow View Tr. To 400' N of John T. White Rd	0.25	4	MA4D-B (1/2)	264	100%	700	700	66	634	\$ 906,000	\$ 906,000
M-13	Randol Mill Rd. (2)	Stone View Circle to 125' W. of Flyaway Ln.	0.79	4	M4U-B	406	100%	650	2,054	321	1,733	\$ 4,317,000	\$ 4,317,000
M-14	Randol Mill Rd. (3)	125' W. of Flyaway Ln. to 45' E. of Goldeneye Ln.	0.10	4	M4U-B (1/2)	406	100%	650	260	41	219	\$ 243,000	\$ 243,000
M-15	Randol Mill Rd. (4)	45' E. of Goldeneye Ln. to 410' E of Existing Cooks Ln.	0.69	4	M4U-B	356	100%	650	1,794	246	1,548	\$ 3,862,000	\$ 3,862,000
M-16	Randol Mill Rd. (5)	410' E of Existing Cooks Ln. to Future Precinct Line Rd.	0.35	4	M4U-B	0	100%	650	910	0	910	\$ 1,752,000	\$ 1,752,000
M-17	Randol Mill Rd. (6)	Future Precinct Line Rd. to Existing Randol Mill Rd.	0.35	4	M4U-B	0	100%	650	910	0	910	\$ 1,757,000	\$ 1,757,000
M-18	Randol Mill Rd. (7)	Future Randol Mill Alignment to Mill Water Dr.	0.48	4	M4U-B	548	100%	650	1,248	263	985	\$ 2,253,000	\$ 2,253,000
M-19	Randol Mill Rd. (8)	Mill Water Dr. to Racquet Club Dr.	0.21	4	M4U-B (1/2)	548	100%	650	546	115	431	\$ 483,000	\$ 483,000
M-20	Randol Mill Rd. (9)	John T. White Rd. to 165' SE of Winding Ln.	0.19	4	M4U-B	568	100%	650	494	108	386	\$ 891,000	\$ 891,000
M-21	Randol Mill Rd. Bridge	145' SE of Cottonwood Village Dr. to IH-30 EB	0.11	4	M4U-B (1/2)	568	100%	650	286	62	224	\$ 1,265,000	\$ 1,265,000
M-22	Anderson Blvd. (1)	1270' W of Williams Rd. to 1055' W of Williams Rd.	0.04	4	M4U	0	100%	650	104	0	104	\$ 196,000	\$ 196,000
M-23	Anderson Blvd. (2)	1055' W of Williams Rd. to Sandy Ln.	0.48	4	M4U	15	100%	650	1,248	7	1,241	\$ 2,176,000	\$ 2,176,000
M-24	House Anderson Rd. (4)	N City Limits to S City Limits	0.70	4	M4U	0	100%	650	1,820	0	1,820	\$ 3,573,000	\$ 3,573,000
M-25	Trinity Blvd. (1)	IH-820 NB to Precinct Line Rd.	1.67	4	MA4D-B	1,568	100%	700	4,676	2,619	2,057	\$ 11,532,000	\$ 11,532,000
M-26	Trinity Blvd. (2)	Precinct Line Rd. to Norwood Dr.	0.86	4	MA4D-B	1,404	100%	700	2,408	1,208	1,200	\$ 6,570,000	\$ 6,570,000
M-27	Trinity Blvd. (3)	Norwood Dr. to Bell Spur	0.58	4	MA4D-B	1.599	100%	700	1,624	927	697	\$ 4,386,000	\$ 4,386,000
M-28	Trinity Blvd. (4)	Bell Spur to 1110' W of Greenbelt Rd.	0.56	6	P6D-B	1.765	100%	700	2,352	988	1.364	\$ 5,247,000	
SUBTOTAL	y(.)					,			37.016	9.021	27.995	79.593.000	\$ 79,593,000

Transportation Impact Fee Study Cost (Per Service Area) \$ 25,555
TOTAL COST IN SERVICE AREA M \$ 79,618,555

#### **TIP Service Units of Supply**

Service Area N

OCI VICE	Alcuit												
Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	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	S. Pipeline Rd. (1)	Raider Dr. to House Anderson Rd	0.69	4	M4U-B	188	100%	650	1,794	130	1,664	\$ 3,465,000	\$ 3,465,000
N-2	S. Pipeline Rd. (2)	House Anderson Rd. to E. City Limits	0.33	4	M4U-B	185	100%	650	858	61	797	\$ 1,546,000	\$ 1,546,000
N-3	S. Pipeline Rd. (3)	W. City Limits to FM 157	0.32	4	M4U-B	238	100%	650	832	76	756	\$ 1,449,000	\$ 1,449,000
N-4	S. Pipeline Rd. (4)	FM 157 to Euless South Main St.	1.01	4	M4U-B	276	100%	650	2,626	279	2,347	\$ 5,609,000	\$ 5,609,000
N-5	S. Pipeline Rd. (5)	Euless South Main St. to Summerbrook Dr.	0.46	4	M4U-B	245	100%	650	1,196	113	1,083	\$ 2,142,000	\$ 2,142,000
N-6	S. Pipeline Rd. (6)	Summerbrook Dr. to Boulder Park Dr.	0.14	4	M4U-B (1/2)	245	100%	650	364	34	330	\$ 728,000	\$ 728,000
N-7	S. Pipeline Rd. (7)	Boulder Park Dr. to American Blvd.	0.08	4	M4U-B	245	100%	650	208	20	188	\$ 370,000	\$ 370,000
N-8	House Anderson Rd. (1)	S. Pipeline to Trinity Blvd.	0.27	4	M4U (1/2)	357	100%	650	702	96	606	\$ 618,000	\$ 618,000
N-9	House Anderson Rd. (2)	Trinity Blvd. to 420' N of Trinity Railway Express	0.43	4	M4U	67	100%	650	1,118	29	1,089	\$ 1,953,000	\$ 1,953,000
N-10	House Anderson Rd. (3)	420' N of Trinity Railway Express to 100' S of TRE	0.10	4	M4U	0	100%	650	260	0	260	\$ 838,000	\$ 838,000
N-11	Euless South Main St	S. Pipeline Rd. to Trinity Blvd.	0.19	4	M4U-B	450	100%	650	494	86	409	\$ 891,000	\$ 891,000
N-12	FAA Blvd. (1)	SH 360 NBFR to Existing FAA Blvd. Dead End	0.33	4	MA4D-B	0	100%	700	924	0	924	\$ 2,291,000	\$ 2,291,000
N-13	FAA Blvd. (2)	Existing FAA Blvd. Dead End to 620' W of Amon Carter Blv	0.22	4	MA4D-B (1/2)	9	100%	700	616	2	614	\$ 788,000	\$ 788,000
N-14	Centreport Dr.	FAA Blvd. to Sovereign Rd.	0.31	4	MA4D-B	0	100%	700	868	0	868	\$ 2,155,000	\$ 2,155,000
N-15	Trinity Blvd. (5)	595' N of Trinity Railway Express to E. City Limits	0.88	6	P6D (1/3)	990	100%	700	3,696	871	2,825	\$ 1,895,000	\$ 1,895,000
SUBTOTAL									16,556	1,796	14,760	26,738,000	\$ 26,738,000

Transportation Impact Fee Study Cost (Per Service Area) \$

25,555

TOTAL COST IN SERVICE AREA N \$

26,763,555

#### **TIP Service Units of Supply**

Service Area O 10/2/2012

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	PEAK HOUR VOLUME	SERVICE	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
0-1	Sandy Ln. (4)	IH-30 EB to Ederville Rd.	0.16	4	M4U-B (1/2)	324	100%	650	416	52	364	\$ 792,000	\$ 792,000
0-2	Randol Mill Rd. (10)	IH-30 EB to 120' NW of Mill Valley Cir.	0.08	4	M4U-B	603	100%	650	208	48	160	\$ 822,000	\$ 822,000
O-3	Cooks Ln. (5)	Brentwood Stair Rd. to Whitney Ln.	0.75	4	MA4D-B	883	100%	700	2,100	662	1,438	\$ 5,372,000	\$ 5,372,000
0-4	Cooks Ln. (6)	Whitney Ln. to S Maegen Cir.	0.26	4	MA4D-B (1/2)	365	100%	700	728	95	633	\$ 855,000	\$ 855,000
O-5	Cooks Ln. (7)	S Maegen Cir. To Dottie Lynn Pkwy.	0.27	4	MA4D-B	0	100%	700	756	0	756	\$ 1,853,000	\$ 1,853,000
SUBTOTAL	-								4.208	857	3.351	9.694.000	\$ 9.694.000

Transportation Impact Fee Study Cost (Per Service Area) \$
TOTAL COST IN SERVICE AREA O \$ 9,719,555

25,555

#### **TIP Service Units of Supply**

Service Area S

Project ID #	ROADWAY	LIMITS	LENGTH (MI)		IMPACT FEE CLASSIFICATION	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 Rd. (1)	W. City Limits to Existing Silver Creek	0.52	4	MA4D-B	0	100%	700	1,456	0	1,456	\$ 3,825,000	\$ 3,825,000
S-2	Silver Creek Rd. (2)	570' N of Heron Dr. to Brewer HS Entrance	1.72	4	MA4D-B	744	100%	700	4,816	1,280	3,536	\$ 12,251,000	\$ 12,251,000
S-3	Silver Creek Rd. (3)	Brewer HS Entrance to Loop 820 W SBFR	0.31	4	MA4D-B	873	100%	700	868	271	597	\$ 1,542,173	\$ 1,542,173
S-4	Academy Blvd. (1)	Silver Creek Rd. to 130' N. of Sparrow Hawk Ln.	0.57	4	MA4D-B	0	100%	700	1,596	0	1,596	\$ 4,131,000	\$ 4,131,000
S-5	Academy Blvd. (2)	75' S. of Caravelle Ct. to Future Amber Ridge Dr.	0.36	4	MA4D-B	0	100%	700	1,008	0	1,008	\$ 2,493,000	\$ 2,493,000
S-6	White Settlement Rd. (1)	W. City Limits to Silver Ridge Blvd.	1.14	6	P6D-B	534	50%	700	2,394	304	2,090	\$ 11,078,000	\$ 5,539,000
S-7	White Settlement Rd. (2)	Silver Ridge Blvd. to 430' W. of Yuchi Trl	0.17	6	P6D-B	623	50%	700	357	53	304	\$ 1,388,000	\$ 694,000
S-8	White Settlement Rd. (3)	430' W. of Yuchi Trl to 300' W. of Chapel Creek Blvd.	0.69	6	P6D-B	961	100%	700	2,898	663	2,235	\$ 5,949,000	\$ 5,949,000
S-9	White Settlement Rd. (4)	300' W. of Chapel Creek to Academy Blvd.	0.56	6	P6D (1/3)	1,273	100%	700	2,352	713	1,639	\$ 1,100,000	\$ 1,100,000
S-10	White Settlement Rd. (5)	Academy Blvd. to Clifford St.	0.50	6	P6D (1/3)	1,642	100%	700	2,100	821	1,279	\$ 986,000	\$ 986,000
S-11	Silver Ridge Blvd.	135' S. of Broken Arrow Tr. to 120' N of Fandor St.	0.51	4	M4U	0	100%	650	1,326	0	1,326	\$ 2,677,000	\$ 2,677,000
S-12	Westpoint Blvd. (1)	W. City Limits to Basset Locke Dr.	0.65	4	MA4D-B	0	100%	700	1,820	0	1,820	\$ 4,695,000	\$ 4,695,000
S-13	Westpoint Blvd. (2)	Basset Locke Dr. to American Flyer Blvd.	0.30	4	MA4D-B (1/2)	445	100%	700	840	134	707	\$ 1,085,000	\$ 1,085,000
S-14	Westpoint Blvd. (3)	Academy Blvd. to Existing Alemeda St.	0.41	4	MA4D-B	177	100%	700	1,148	73	1,075	\$ 2,646,000	\$ 2,646,000
S-15	Westpoint Blvd. (4)	Existing Alemeda St. to Loop 820 W SBFR	0.28	4	MA4D	177	100%	700	784	50	734	\$ 1,755,000	\$ 1,755,000
S-16	Alemeda St. (1)	Academy Blvd. to 525' N of Westpoint Blvd.	0.33	4	M4U-B	269	100%	650	858	89	769	\$ 1,567,000	\$ 1,567,000
S-17	Alemeda St. (2)	525' N of Westpoint Blvd. to Future Academy Blvd.	0.62	4	M4U	0	100%	650	1,612	0	1,612	\$ 3,215,000	\$ 3,215,000
S-18	Alemeda St. (3)	IH-30 WBFR to IH-30	0.12	4	M4U-B	190	100%	650	312	23	289	\$ 1,235,000	\$ 1,235,000
S-19	N-S Minor Arterial	Westpoint Blvd. to Old Weatherford Rd.	0.92	4	M4U	0	100%	650	2,392	0	2,392	\$ 4,657,000	\$ 4,657,000
S-20	Old Weatherford Rd. (1)	645' E of County Rd 1029 to Chapel Creek Blvd.	1.17	4	M4U	129	100%	650	3,042	151	2,891	\$ 6,546,000	\$ 6,546,000
S-21	Amber Ridge Dr. (1)	Chapel Creek Blvd. to Wind Star Way	0.26	4	M4U (1/2)	64	100%	650	676	17	659	\$ 601,000	\$ 601,000
S-22	Amber Ridge Dr. (2)	Wind Star Way to Future Academy Blvd	0.24	4	M4U	0	100%	650	624	0	624	\$ 1,143,000	\$ 1,143,000
S-23	Chapin Rd. (1)	W. City Limits to 1,800' E. of W. City Limits	0.34	4	M4U-B	131	100%	650	884	45	839	\$ 1,991,000	\$ 1,991,000
S-24	Chapin Rd. (2)	1,800' E. of W. City Limits to 470' W of Wakecrest Dr.	0.30	4	M4U-B	0	100%	650	780	0	780	\$ 1,930,000	\$ 1,930,000
S-25	Academy Blvd. (3)	Future Amber Ridge to IH-30 WBFR	0.51	4	MA4D	0	100%	700	1,428	0	1,428	\$ 3,632,000	\$ 3,632,000
S-26	Chapel Creek Blvd	Chapin Rd. to IH-30	0.17	4	MA4D	1,319	100%	700	476	224	252	\$ 967,698	\$ 967,698
SUBTOTAL									38,847	4,908	33,939	85,085,871	\$ 78,852,871

Transportation Impact Fee Study Cost (Per Service Area) \$

25,555

TOTAL COST IN SERVICE AREA S \$

78,878,426

#### **TIP Service Units of Supply**

Service Area T

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	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	AL PROJECT T IN SERVICE AREA
T-1	Chapin Rd. (3)	Camp Bowie West Blvd. to Longvue Ave.	0.61	4	MA4D	0	100%	700	1,708	0	1,708	\$ 4,682,000	\$ 4,682,000
T-2	Alemeda St. (4)	IH-30 EB to IH-30 EBFR	0.07	4	M4U-B	165	100%	650	182	12	170	\$ 676,000	\$ 676,000
T-3	Alemeda St. (5)	Camp Bowie West Blvd. to Chapin Rd.	0.44	4	M4U-B	43	100%	650	1,144	19	1,125	\$ 2,464,000	\$ 2,464,000
T-4	Chapin Rd. (4)	Longvue Ave. to Chapin Curve	0.51	4	M4U-B	65	100%	650	1,326	33	1,293	\$ 2,998,000	\$ 2,998,000
T-5	Chapin Rd. (5)	Chapin Curve to Alemeda St.	0.18	4	M4U-B	0	100%	650	468	0	468	\$ 912,000	\$ 912,000
T-6	Chapin Rd. (6)	Alemeda St. to IH-820 NBFR	0.30	4	M4U-B	65	100%	650	780	20	760	\$ 1,809,000	\$ 1,809,000
SUBTOTAL									5,608	83	5,525	13,541,000	\$ 13,541,000

Transportation Impact Fee Study Cost (Per Service Area) \$

25,555

TOTAL COST IN SERVICE AREA T \$

13,566,555

#### **TIP Service Units of Supply**

Service Area U 10/2/2012

0011101													
Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	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 Rd. (1)	W. City Limits to 1800' W of Future Walsh Ranch Pkwy.	0.38	4	M4U-B	25	100%	650	988	10	979	\$ 1,800,000	\$ 1,800,000
U-2	Old Weatherford Rd. (2)	1800' W of Future Walsh Ranch Pkwy. to Future Walsh Ra	0.34	4	M4U-B	0	100%	650	884	0	884	\$ 1,691,000	\$ 1,691,000
U-3	Walsh Ranch Pkwy. (1)	North City Limits to Future Old Weatherford Rd.	0.55	6	P6D-B	0	100%	700	2,310	0	2,310	\$ 5,448,000	\$ 5,448,000
U-4	Walsh Ranch Pkwy. (2)	Future Old Weatherford to Future Walsh Ranch Minor #4	1.27	6	P6D-B	0	100%	700	5,334	0	5,334	\$ 11,976,000	\$ 11,976,000
U-5	Walsh Ranch Pkwy. (3)	Future Walsh Ranch Minor #4 to IH-30 WBFR	0.22	6	P6D	0	100%	700	924	0	924	\$ 1,882,000	\$ 1,882,000
U-6	Walsh Ranch Pkwy. (4)	IH-30 WBFR to Walsh Ranch Major #1	1.26	6	P6D-B	0	100%	700	5,292	0	5,292	\$ 15,859,000	\$ 15,859,000
U-7	Walsh Ranch Pkwy. (5)	Walsh Ranch Major #1 to SW City Limits	2.00	6	P6D	0	100%	700	8,400	0	8,400	\$ 18,885,000	\$ 18,885,000
U-8	Walsh Ranch Minor #4	Future Walsh Ranch Pkwy. to Walsh Ranch Minor #1	1.15	4	M4U-B	0	100%	650	2,990	0	2,990	\$ 6,206,000	\$ 6,206,000
U-9	Walsh Ranch Minor #1 (1)	W City Limits to Walsh Ranch Major #1	1.72	4	M4U	0	100%	650	4,472	0	4,472	\$ 8,955,000	\$ 8,955,000
U-10	Walsh Ranch Minor #1 (2)	Walsh Ranch Major #1 to City Limits	1.33	4	M4U	0	100%	650	3,458	0	3,458	\$ 8,716,000	\$ 8,716,000
U-11	Walsh Ranch Minor #1 (3)	IH-30 EBFR to Walsh Ranch Minor #4	0.27	4	M4U	0	100%	650	702	0	702	\$ 2,762,000	\$ 2,762,000
U-12	Walsh Ranch Minor #1 (4)	Walsh Ranch Minor #4 to N City Limits	0.86	4	M4U-B	0	100%	650	2,236	0	2,236	\$ 4,528,000	\$ 4,528,000
U-13	Walsh Ranch Major #1 (1)	W City Limits to Future Walsh Ranch Pkwy.	0.72	4	MA4D-B	0	100%	700	2,016	0	2,016	\$ 5,632,000	
U-14	Walsh Ranch Major #1 (2)	Future Walsh Ranch Pkwy. to Walsh Ranch Minor #1	1.58	4	MA4D-B	0	100%	700	4,424	0	4,424	\$ 12,421,000	\$ 12,421,000
U-15	Walsh Ranch Major #1 (3)	Walsh Ranch Minor #1 to RR tracks	0.70	4	MA4D-B	0	100%	700	1,960	0	1,960	\$ 5,912,000	
U-16	Walsh Ranch Minor #3	W City Limits to IH-30/20 Intersection	1.09	4	M4U	0	100%	650	2,834	0	2,834	\$ 6,118,000	
U-17	Walsh Ranch Minor #2 (1)	Old Weatherford Rd. to IH-20 WBFR	1.24	4	M4U-B	0	100%	650	3,224	0	3,224	\$ 7,064,000	
U-18	Walsh Ranch Minor #2 (2)	IH-20 WBFR to S City Limits	0.66	4	M4U-B	0	100%	650	1,716	0	1,716	\$ 4,997,000	\$ 4,997,000
U-19	Westpoint Blvd. (5)	W. City Limits to E. City Limits	0.52	4	MA4D-B	0	100%	700	1,456	0	1,456	\$ 3,780,000	\$ 3,780,000
SUBTOTAL									55,620	10	55,611	134,632,000	\$ 134,632,000

Transportation Impact Fee Study Cost (Per Service Area) \$ TOTAL COST IN SERVICE AREA U \$

10,000 134,642,000

#### **TIP Service Units of Supply**

Service Area W

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	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	AL PROJECT T IN SERVICE AREA
W-1	Dutch Branch Rd.	Oakmont Trail to 45' E of RR	0.20	4	M4U-B	0	100%	650	520	0	520	\$ 1,182,000	\$ 1,182,000
W-2	Harris Pwky.	Dutch Branch Rd. to Dirks Rd.	0.49	4	M4U	500	100%	650	1,274	245	1,029	\$ 1,256,097	\$ 1,256,097
W-3	Granbury Rd. (1)	Dan Danciger Rd. to Hulen St.	0.61	6	P6D (1/3)	1,992	100%	700	2,562	1,215	1,347	\$ 1,191,000	\$ 1,191,000
W-4	Lakeside Dr.	Clear Fork Trinity River to Bryant Irvin Rd.	1.38	4	M4U	836	100%	650	3,588	1,153	2,435	\$ 6,634,000	\$ 6,634,000
W-5, Y-1	Dirks Rd. (1)	Bryant Irvin Rd. to Harris Pkwy.	0.52	6	P6D	1,160	50%	700	1,092	302	790	\$ 1,797,748	\$ 898,874
W-6, Y-2	Dirks Rd. (2)	Harris Pkwy. to Granbury Rd.	0.58	6	P6D	1,435	50%	700	1,218	416	802	\$ 2,479,747	\$ 1,239,874
SUBTOTAL	-	·							10,254	3,331	6,923	14,540,592	\$ 12,401,845

Transportation Impact Fee Study Cost (Per Service Area) \$

25,555

TOTAL COST IN SERVICE AREA W \$

12,427,400

#### **TIP Service Units of Supply**

**Service Area X** 10/2/2012

Project ID #	ROADWAY	LIMITS	LENGTH (MI)	LANES	IMPACT FEE CLASSIFICATION	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	Seminary Dr. (1)	Carter Park Dr. to Campus Dr.	0.62	6	P6D (1/3)	1,270	100%	700	2,604	787	1,817	\$ 1,573,000	\$ 1,573,000
X-2	Seminary Dr. (2)	Campus Dr. to Old Mansfield Rd.	0.48	6	P6D (1/3)	1,086	100%	700	2,016	521	1,495	\$ 1,256,000	\$ 1,256,000
X-3	Oak Grove Rd. (1)	Oak Grove Rd. to Oak Grove Rd / Campus	0.32	4	M4U-B	1,192	100%	650	832	381	451	\$ 1,497,000	\$ 1,497,000
X-4	Altamesa Blvd. (1)	Oak Grove Rd./Campus Dr. to Wichita St.	1.31	4	MA4D	0	100%	700	3,668	0	3,668	\$ 9,423,000	\$ 9,423,000
X-5	Altamesa Blvd. (2)	Lana Circle to Forest Hill Dr.	0.58	4	MA4D	0	100%	700	1,624	0	1,624	\$ 4,083,000	\$ 4,083,000
X-6	Joel East Rd.	Oak Grove Rd. to Wichita St.	1.10	4	M4U	211	100%	650	2,860	232	2,628	\$ 5,473,000	\$ 5,473,000
Z-1, X-7	Everman Pkwy. (1)	Butterwick St. to Cameron Hill	0.56	4	MA4D	0	50%	700	784	0	784	\$ 4,769,000	\$ 2,384,500
Z-2, X-8	Everman Pkwy. (2)	Cameron Hill to 320' E. of Sheridan Rd.	0.29	4	MA4D (1/2)	86	50%	700	406	12	394	\$ 1,026,000	\$ 513,000
X-9	Hemphill St. (1)	Sunderland Ln. to 130' S of Kielder Cir.	0.39	4	MA4D-B (1/2)	349	100%	700	1,092	136	956	\$ 1,413,000	\$ 1,413,000
X-10	Hemphill St. (2)	130' S of Kielder Cir. to Sycamore School Rd.	0.40	4	MA4D-B	0	100%	700	1,120	0	1,120	\$ 2,732,000	\$ 2,732,000
X-11	Hemphill St. (3)	360' S of Sycamore School Rd. to Rosedale Springs Ln.	0.41	4	MA4D-B (1/2)	202	100%	700	1,148	83	1,065	\$ 1,509,000	\$ 1,509,000
X-12	Hemphill St. (4)	Rosedale Springs Ln. to Everman Pkwy.	0.15	4	MA4D-B	0	100%	700	420	0	420	\$ 1,059,000	
X-13	Oak Grove Rd. (2)	Altamesa Blvd. to RR tracks	0.19	4	MA4D-B (1/2)	642	100%	700	532	122	410	\$ 871,000	\$ 871,000
X-14	Oak Grove Rd. (3)	RR tracks to Everman Pkwy.	1.58	4	MA4D-B	598	100%	700	4,424	945	3,479	\$ 11,541,000	
X-15	Wichita St. (1)	340' N of Altamesa Blvd. to Joel East Rd.	0.20	4	MA4D	1,020	100%	700	560	204	356	\$ 1,250,000	\$ 1,250,000
X-16	Wichita St. (2)	Joel East Rd. to 130' N of Buie Dr.	0.18	4	MA4D	1,020	100%	700	504	184	320	\$ 1,107,000	\$ 1,107,000
X-17	Forest Hill Dr. (1)	Lon Stevenson Rd. to S City Limits	0.72	4	MA4D-B	939	100%	700	2,016	676	1,340	\$ 4,723,000	\$ 4,723,000
X-18	Anglin Dr.	Lon Stevenson Rd. to Enon Rd.	1.00	4	M4U	208	100%	650	2,600	208	2,392	\$ 5,399,000	\$ 5,399,000
X-19	Dick Price Rd.	N City Limits to S City Limits	0.48	4	M4U	369	100%	650	1,248	177	1,071	\$ 2,194,000	\$ 2,194,000
X-20	Enon Rd.	W. City Limits to Anglin Dr.	0.50	4	M4U	109	100%	650	1,300	55	1,245	\$ 2,261,000	\$ 2,261,000
SUBTOTAL			·				·		31.758	4.723	27.035	65.159.000	\$ 62,261,500

Transportation Impact Fee Study Cost (Per Service Area) \$
TOTAL COST IN SERVICE AREA X \$

25,555

62,287,055

#### **TIP Service Units of Supply**

Service Area Y 10/2/2012

1						DEAL	0/ 11/	VEH-MI	VEH-MI	VEH-MI	EXCESS		TOTAL DD0.1555
Project ID	DOLDWAY	1.0.4770	LENGTH	LANES	IMPACT FEE	PEAK	% IN	CAPACITY	SUPPLY	TOTAL	CAPACITY	TOTAL PROJECT	TOTAL PROJECT
#	ROADWAY	LIMITS	(MI)	LANES	CLASSIFICATION	HOUR VOLUME	SERVICE AREA	PK-HR	PK-HR	DEMAND	PK-HR	COST	COST IN SERVICE
			, ,			VOLUME	AREA	PER LN	TOTAL	PK-HR	VEH-MI		AREA
W-5, Y-1	Dirks Rd. (1)	Bryant Irvin Rd. to Harris Pkwy.	0.52	6	P6D	1,160	50%	700	1,092	302	790	\$ 1,797,748	\$ 898,874
W-6, Y-2	Dirks Rd. (2)	Harris Pkwy. to South Orient RR	0.35	6	P6D	1,435	50%	700	735	251	484	\$ 2,479,747	\$ 1,239,874
Y-3	Columbus Trl. (1)	Future Bryant Irvin to South Orient RR	0.17	4	MA4D-B	0	100%	700	476	0	476	\$ 1,331,000	\$ 1,331,000
Y-4	Columbus Trl. (2)	South Orient RR to future Brewer Blvd.	0.16	4	MA4D-B	413	100%	700	448	66	382	\$ 1,234,000	\$ 1,234,000
Y-5	Sycamore School Rd. (1)	Future Brewer Blvd. to future SH 121	0.19	4	MA4D-B	413	100%	700	532	78	454	\$ 1,262,000	\$ 1,262,000
Y-6	Sycamore School Rd. (2)	Future SH 121 to Summer Creek Dr.	0.33	6	P6D (1/3)	413	100%	700	1,386	136	1,250	\$ 653,000	\$ 653,000
Y-7	Sycamore School Rd. (3)	Summer Creek Dr. to Creek Meadow Dr.	0.12	4	MA4D	322	100%	700	336	39	297	\$ 130,679	\$ 130,679
Y-8	Risinger Rd. (1)	760' E of McCart Ave. to Poynter St.	0.28	4	MA4D-B (1/2)	263	100%	700	784	74	710	\$ 1,033,000	
Y-9	Risinger Rd. (2)	Poynter St. to existing Risinger Rd. Dead End	0.39	4	MA4D-B	0	100%	700	1,092	0	1,092	\$ 2,534,000	\$ 2,534,000
Y-10	Risinger Rd. (3)	Existing Risinger Rd. Dead End to FM 731	0.45	4	MA4D-B	5	100%	700	1,260	2	1,258	\$ 3,260,000	\$ 3,260,000
Y-11	McPherson Blvd. (1)	FM 1902 to future SH 121	1.08	4	MA4D	0	100%	700	3,024	0	3,024	\$ 1,134,475	\$ 1,134,475
Y-12	McPherson Blvd. (2)	Summer Creek Dr. to Willow Branch Way	0.43	4	MA4D-B (1/2)	78	100%	700	1,204	34	1,170	\$ 1,887,880	\$ 1,887,880
Y-13	McPherson Blvd. (3)	Cleburne Rd. to E City Limits	0.54	4	MA4D-B	0	100%	700	1,512	0	1,512	\$ 4,392,000	\$ 4,392,000
Y-14	Stewart Feltz Rd. (1)	Future Brewer Blvd. to Stewart Feltz Rd. SB Bend	0.40	4	M4U	20	100%	650	1,040	8	1,032	\$ 1,808,000	\$ 1,808,000
Y-15	Stewart Feltz Rd. (2)	Stewart Feltz Rd. SB Bend to Sunflower Ridge Rd.	0.27	4	M4U	0	100%	650	702	0	702	\$ 1,286,000	\$ 1,286,000
Y-16	Sunflower Ridge Rd.	Existing Sunflower Ridge Rd. Dead End to future Summer	0.27	4	M4U (1/2)	20	100%	650	702	5	697	\$ 617,000	\$ 617,000
Y-17	Cleburne Crowley Rd. (1)	W City Limits to Stewart Feltz Rd. EB Curve	0.92	4	MA4D-B	0	100%	700	2,576	0	2,576	\$ 6,583,000	\$ 6,583,000
Y-18	Cleburne Crowley Rd. (2)	Stewart Feltz Rd. EB Curve to 460' W. of Rancho Viejo	0.50	4	MA4D-B	7	100%	700	1,400	4	1,397	\$ 3,494,000	\$ 3,494,000
Y-19	Cleburne Rd.	Cleburne Crowley Rd. to Summer Creek Dr.	0.40	4	M4U	0	100%	650	1,040	0	1,040	\$ 1,901,000	\$ 1,901,000
Y-20	Bryant Irvin (1)	Dirks Rd. to 2,755' S. of Dirks Rd.	0.52	4	MA4D-B	0	50%	700	728	0	728	\$ 3,786,000	\$ 1,893,000
Y-21	Bryant Irvin (2)	2,755' S. of Dirks Rd. to future Columbus Trl.	0.76	4	MA4D-B	0	100%	700	2,128	0	2,128	\$ 5,414,000	\$ 5,414,000
Y-22	Bryant Irvin (3)	Future Columbus Trl. to S City Limits	1.83	4	MA4D	0	100%	700	5,124	0	5,124	\$ 13,717,000	\$ 13,717,000
Y-23	Brewer Blvd. (1)	Columbus Trl. to 155' N. of Bindweed St.	0.52	4	MA4D-B	0	100%	700	1,456	0	1,456	\$ 4,565,000	\$ 4,565,000
Y-24	Brewer Blvd. (2)	125' S. of Risinger Rd. to McPherson Blvd.	0.61	4	M4U-B	0	100%	650	1,586	0	1,586	\$ 3,270,000	\$ 3,270,000
Y-25	Brewer Blvd. (3)	McPherson Blvd. to SW City Limits	1.55	4	M4U	0	100%	650	4,030	0	4,030	\$ 8,599,000	\$ 8,599,000
Y-26	Granbury Rd. (2)	350' S. of Alta Mesa Blvd. to 630' N. of Appalachian Way	0.23	4	MA4D	1,882	100%	700	644	433	211	\$ 1,648,291	\$ 1,648,291
Y-27	Granbury/Summer Creek Dr.	Summer Meadows to Columbus Trail	0.54	4	MA4D	1,882	100%	700	1,512	1,016	496	\$ 595,316	\$ 595,316
Y-28	Summer Creek Dr. (1)	Summer Park to Risinger Rd.	0.40	4	MA4D-B (1/2)	482	100%	700	1,120	193	927	\$ 1,458,000	\$ 1,458,000
Y-29	Summer Creek Dr. (2)	Risinger Rd. to McPherson Blvd.	0.66	4	MA4D-B	0	100%	700	1,848	0	1,848	\$ 2,952,839	\$ 2,952,839
Y-30	Summer Creek Dr. (3)	McPherson Blvd. to Sunflower Ridge Rd.	0.45	4	MA4D-B (1/2)	67	100%	700	1,260	30	1,230	\$ 1,624,000	\$ 1,624,000
Y-31	Summer Creek Dr. (4)	Sunflower Ridge Rd. to 640' N. of Cleburne Crowley Rd.	0.82	4	MA4D-B	0	100%	700	2,296	0	2,296	\$ 6,254,000	
Y-32	Summer Creek Dr. (5)	Cleburne Crowley Rd. to future Cleburne Rd. Alignment	0.07	4	MA4D-B	85	100%	700	196	6	190	\$ 474,000	\$ 474,000
Y-33	Summer Creek Dr. (6)	Existing Cleburne Rd. to SW City Limits	1.40	4	MA4D	0	100%	700	3,920	0	3,920	\$ 10,176,000	\$ 10,176,000
Y-34	Cleburne Rd. (1)	Future Summer Creek Dr. to existing Cleburne Rd.	0.15	4	M4U-B	0	100%	650	390	0	390	\$ 724,000	
Y-35	Cleburne Rd. (2)	Existing Cleburne Rd. to future Cleburne Rd. Alignment	0.26	4	M4U-B	85	100%	650	676	22	654	\$ 1,207,000	
Y-36	Cleburne Rd. (3)	Existing Cleburne Rd. to S City Limits	0.35	4	M4U-B	0	100%	650	910	0	910	\$ 1,743,000	\$ 1,743,000
Y-37	Hulen St. (1)	McPherson Blvd. to Carriage Crossing Dr.	0.19	4	MA4D-B (1/2)	184	100%	700	532	35	497	\$ 689,000	\$ 689,000
Y-38	Hulen St. (2)	Carriage Crossing Dr. to S City Limits	0.36	4	MA4D-B	0	100%	700	1,008	0	1,008	\$ 480,000	\$ 480,000
Y-39	Hulen St. (3)	325' N. of Rancho Verde Pkwy. To S. City Limits	0.50	4	MA4D-B	20	100%	700	1,400	10	1,390	\$ 3,236,000	\$ 3,236,000
Y-40	McCart Ave. (1)	585' S. of Risinger Rd. to 135' S. of Cayman Dr.	0.31	4	MA4D (1/2)	114	100%	700	868	35	833	\$ 1,474,000	\$ 1,474,000
Y-41	McCart Ave. (2)	135' S of Cayman Dr. to future McPherson Blvd.	0.57	4	MA4D	0	100%	700	1,596	0	1,596	\$ 4,053,000	\$ 4,053,000
Y-42	McCart Ave. (3)	McPherson Blvd. to 145' N of Twinleaf Dr.	0.60	4	M4U	0	100%	650	1,560	0	1,560	\$ 3,730,000	\$ 3,730,000
Y-43	McCart Ave. (4)	300' S of Twinleaf Dr. to S City Limits	0.44	4	M4U (1/2)	57	100%	650	1,144	25	1,119	\$ 987,000	
SUBTOTAL									59,273	2,804	56,469	121,674,975	\$ 117,643,228
	_		•						Transport	ation Impact	Fee Study Cos	st (Per Service Area)	\$ 25,555
										•	•		-,

TOTAL COST IN SERVICE AREA Y \$ 117,668,783

#### **TIP Service Units of Supply**

Service Area Z 10/2/2012

JBTOTAL									65,925	3,482	62,443	172,698,761	\$ 166,461,7 \$ 25.5
Z-41	Rendon / Forest-Hill (2)	Shelby Rd. to 80' S of future Risinger Rd.	0.50	4	MA4D	620	50%	700	700	155	545		\$ 1,704,5
Z-40	Rendon / Forest-Hill (1)	640' N of Chambers Creek Dr. to Shelby Rd.	0.45	4	MA4D	567	50%	700	630	128	502	\$ 3,270,000	\$ 1,635,0
Z-39	Wildcat Way	Burleson Retta Rd. to S. City Limits	0.64	4	M4U-B	0	100%	650	1,664	0	1,664	\$ 3,416,000	\$ 3,416,0
Z-38	Oak Grove Rd. (11)	FM 1187 to Burleson Retta Rd.	1.55	4	M4U-B	0	100%	650	4,030	0	4,030	\$ 8,836,000	\$ 8,836,
Z-37	Oak Grove Rd. (10)	Nelson Pl. to 115' N. of Doe Meadow Dr.	0.22	4	MA4D-B	404	100%	700	616	89	527	\$ 1,403,000	
Z-36	Oak Grove Rd. (9)	McPherson Blvd. to Nicole Way	0.96	4	MA4D	0	100%	700	2,688	0	2,688	\$ 7,041,000	\$ 7,041
Z-35	Wichita St. (5)	790' W of Race St. to McPherson Blvd.	0.13	4	MA4D	0	100%	700	2.268	0	2,268	\$ 6,057,000	\$ 6,057
Z-34	Wichita St. (4)	Race St. to 790' W. of Race St.	0.15	4	MA4D (1/2)	100	100%	700	420	15	405	\$ 532,000	\$ 532
Z-32	Wichita St. (3)	Shelby Rd. to Risinger Rd.	0.52	4	MA4D	0	100%	700	1,456	0	1,456	\$ 3,727,000	\$ 3,72
Z-31	Stone Rd. (4)	Abner Lee Dr. to S City Limits	0.02	4	M4U-B	0	100%	650	286	0	286	\$ 560,000	\$ 560
Z-30	Stone Rd. (4)	Alsbury Blvd. to Abner Lee Dr.	0.62	4	M4U-B	312	100%	650	1.612	193	1,419	\$ 3,146,000	\$ 3,146
Z-29 Z-30	Stone Rd. (2)	FM 1187 to Alsbury Dr.	1.07	4	M4U-B	0	100%	650	2,782	0	2,782	\$ 5,799,000	\$ 5,799
Z-20 Z-29	Stone Rd. (1)	Nelson Pl. to FM 1187	0.90	4	MA4D-B MA4D-B	0	100%	700	2.520	0	2.520	\$ 6.844.000	\$ 6.844
Z-27 Z-28	Stone Rd. (1)	Oak Grove E. to Nelson Pl.	0.43	4	MA4D-B	404	100%	700	1,204	210	1,246	\$ 3,641,000	\$ 3,641
Z-20 Z-27	Oak Grove Rd. (7)	McPherson Blvd. to Oak Grove E.	0.13	4	MA4D-B MA4D-B	404	100%	700	1.204	174	1.030	\$ 3,212,000	\$ 3.212
Z-25	Oak Grove Rd. (7)	Buffalo Springs Dr. to McPherson Blvd.	0.02	4	MA4D-B MA4D-B	299	100%	700	364	39	325	\$ 844,000	
Z-24 Z-25	Oak Grove Rd. (5) Oak Grove Rd. (6)	Oak Grove Snelby to Oak Grove Rd. (Realigned)  Oak Grove Rd. (Realigned) to Buffalo Springs Dr.	0.19	4	MA4D-B MA4D-B	0	100%	700	1,736	0	1,736	\$ 1,607,000	\$ 1,607
Z-23 Z-24	Oak Grove Rd. (4) Oak Grove Rd. (5)	Oak Grove Shelby to Oak Grove Rd. (Realigned)	0.36	4	MA4D-B MA4D-B	321	100%	700	532	61	892 471	\$ 2,369,000	
Z-22 Z-23	Hemphill St. (9) Oak Grove Rd. (4)	McAlister Rd. to S. City Limits Forum Way to Future Risinger Rd./Oak Grove Shelby	0.20	4	M4U-B MA4D-B	0 321	100% 100%	650 700	520 1,008	0 116	520 892	\$ 1,006,000 \$ 2,369,000	\$ 1,006 \$ 2,369
Z-21	Hemphill St. (8)	FM 1187 EB to McAlister Rd.	0.25	4	M4U-B (1/2)	100	100%		650	25		\$ 593,000 \$ 1,006,000	\$ 593
Z-20	Hemphill St. (7)	580' N of Brasenose St. to Nuffield Ln.	0.23	4	MA4D-B (1/2)	325	100%	700 650	644	75	569 625	\$ 822,000	\$ 822
Z-19	Hemphill St. (6)	1670' S of Risinger Rd. to 580' N of Brasenose St.	1.66	4	MA4D-B	0	100%	700 700	4,648	0	4,648	\$ 12,541,000	\$ 12,541
Z-18	Hemphill St. (5)	Future Everman Pkwy. to Risinger Rd.	0.86	4	MA4D-B	0	100%	700	2,408	0	2,408	\$ 6,540,000	\$ 6,540
Z-17	Alsbury Blvd.	70' E of IH-35W NBFR to Stone Rd.	0.20	4	MA4D	381	100%	700	560	76	484	\$ 1,256,000	\$ 1,256
Z-16	McAlister Rd. (3)	IH-35W NBFR to Stone Rd.	0.24	4	M4U-B	0	100%	650	624	0	624	\$ 1,198,000	\$ 1,198
Z-15	McAlister Rd. (2)	IH-35W SBFR to IH-35W NBFR	0.09	4	M4U-B	503	100%	650	234	45	189	\$ 2,716,000	
Z-14	McAlister Rd. (1)	50' W of UP RR to IH-35W SBFR	0.27	2	M3U-B	503	100%	650	351	136	215	\$ 921,761	
Z-13	McPherson Blvd. (8)	Stone (Oak Grove) to Forest Hill - Everman Rd.	1.44	4	MA4D	309	100%	700	4,032	445	3,587	\$ 9,501,000	\$ 9,50
Z-12	McPherson Blvd. (7)	IH-35W NBFR to Stone (Oak Grove)	0.67	4	MA4D-B	0	100%	700	1,876	0	1,876	\$ 5,255,000	\$ 5,25
Z-11	McPherson Blvd. (6)	IH-35W SBFR to IH-35W NBFR	0.13	4	MA4D-B (1/2)	718	100%	700	364	93	271	\$ 3,591,000	\$ 3,59
Z-10	McPherson Blvd. (5)	Bilsky Bay Dr. to IH-35W SBFR	0.09	4	MA4D-B (1/2)	486	100%	700	252	44	208	\$ 336,000	\$ 330
Z-9	McPherson Blvd. (4)	FM 731 to UP RR	1.30	4	MA4D-B	0	100%	700	3,640	0	3,640	\$ 9,779,000	\$ 9,779
Z-8	Oak Grove Shelby Rd./Risinger Rd.	Race St. to Rendon / Forest Hill Dr.	1.00	4	MA4D-B	0	100%	700	2,800	0	2,800	\$ 7,076,000	\$ 7,076
Z-7	Oak Grove Shelby Rd.	Oak Grove Rd. to Race St.	1.01	4	MA4D-B	23	100%	700	2,828	23	2,805	\$ 7,005,000	\$ 7,005
Z-6	Risinger Rd. (6)	Old Burleson Rd. to Oak Grove Rd.	0.79	4	MA4D-B	0	100%	700	2,212	0	2,212	\$ 6,047,000	\$ 6,047
Z-5	Risinger Rd. (5)	IH-35W SBFR to Old Burleson Rd.	0.28	4	MA4D-B	193	100%	700	784	54	730	\$ 1,821,000	\$ 1,821
Z-4	Risinger Rd. (4)	FM 731 to IH-35W SBFR	1.62	4	MA4D-B	491	100%	700	4,536	795	3,741	\$ 11,925,000	\$ 11,925
Z-3	Shelby Rd.	Race St. to Rendon / Forest Hill Dr.	1.00	4	MA4D	478	100%	700	2,800	478	2,322	\$ 6,747,000	\$ 6,747
Z-2, X-8	Everman Pkwy. (2)	Cameron Hill to 320' E. of Sheridan Rd.	0.29	4	MA4D (1/2)	86	50%	700	406	12	394	\$ 1,026,000	\$ 513
-1, X-7	Everman Pkwy. (1)	Butterwick St. to Cameron Hill	0.56	4	MA4D	0	50%	700	784	0	784	\$ 4,769,000	\$ 2,384
"			(IVII)		OL/100II IO/11IOI1	VOLUME	AREA	PER LN	TOTAL	PK-HR	VEH-MI	0001	AREA
oject ID	ROADWAY	LIMITS	(MI)	LANES	IMPACT FEE CLASSIFICATION	HOUR	SERVICE	PK-HR	PK-HR	DEMAND	PK-HR	COST	COST IN SERV
.: t ID			LENGTH		IMPACT FEE	PEAK	% IN	VEH-MI CAPACITY	VEH-MI SUPPLY	VEH-MI TOTAL	EXCESS CAPACITY	TOTAL PROJECT	TOTAL PROJE

TOTAL COST IN SERVICE AREA Z \$

166,487,316

# C

G

2013 Transportation Impact Fee Study

Existing Roadway

Facilities Inventory

Service Area A

Service Area A													10/2/2012
							PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES		IR VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						NB/EB	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Litsey Rd.	Future Beach St.	Cleveland-Gibbs Rd.	3,825	0.72	2U-R	3	3	100%	150	217	5	212	
Litsey Rd.	Cleveland-Gibbs Rd.	470' E of Cleveland-Gibbs Rd.	470	0.09	2U-R	3	3	100%	150	27	1	26	
Litsey Rd.	470' E of Cleveland-Gibbs Rd.	1255' E of Cleveland Gibbs Rd.	785	0.15	4D	3	3	100%	700	416	1	415	
Litsey Rd.	1255' E of Cleveland Gibbs Rd.	270' E of Seventeen Lakes Blvd.	1,340	0.25	2U	3	3	50%	425	108	1	107	
Litsey Rd.	270' E of Seventeen Lakes Blvd.	1345' W of E City Limits	1,940	0.37	2U	3	3	100%	425	312	2	310	
Litsey Rd.	1345' W of E City Limits	E City Limits	1,345	0.25	2U	3	3	50%	425	108	1	107	
Eagle Pkwy.	IH-35W SBFR	Elizabethtown Cemetery Rd.	1,665	0.32	6D	36	36	100%	700	1,324	23	1,302	
Henrietta Creek Rd.	1635' W of Independence Pkwy.	Independence Pkwy.	1,635	0.31	2U-CG	20	20	100%	425	263	12	251	
Westport Pkwy.	IH-35W SBFR	IH-35W NBFR	330	0.06	5U	272	272	100%	700	175	34	141	
Westport Pkwy.	IH-35W NBFR	Old Denton Rd.	3,275	0.62	2U	203	332	100%	425	527	332	195	
Westport Pkwy.	Old Denton Rd.	1500' E of Old Denton Rd.	1,500	0.28	2U	196	313	100%	425	241	145	97	
Westport Pkwy.	1500' E of Old Denton Rd.	Future Beach St.	1,155	0.22	2U	196	313	100%	425	186	111	75	
Westport Pkwy.	Alta Vista Rd.	Haslet-Roanoke Rd.	1,165	0.22	2U-CG	75	69	100%	425	188	32	156	
Westport Pkwy.	SH 170 WB	SH 170 EB	425	0.08	6U	75	69	100%	700	338	12	326	
Westport Pkwy.	625' W of Park Vista Blvd.	150' W of Park Vista Blvd.	475	0.09	4D	3	2	100%	700	252	0	251	
Westport Pkwy.	150' W of Park Vista Blvd.	400' E of Park Vista Blvd.	555	0.11	4D	28	94	100%	700	294	13	281	
Westport Pkwy.	400' E of Park Vista Blvd.	1370' W of Independence Pkwy.	1,940	0.37	2U-CG	28	94	100%	425	312	45	267	
Westport Pkwy.	1370' W of Independence Pkwy.	Independence Pkwy.	1,370	0.26	4D	30	92	100%	700	727	32	695	
Westport Pkwy.	Independence Pkwy.	Denton Hwy. (US 377)	1,555	0.29	4D	210	51	100%	700	825	77	748	
Timberland Blvd.	Alta Vista Rd.	425' E of Lillybrook Ln.	2,055	0.39	4D	292	172	50%	700	545	90	455	
Timberland Blvd.	425' E of Lillybrook Ln.	Caylor Rd.	1,600	0.30	2U-R	46	36	50%	150	45	12	33	
Timberland Blvd.	Park Vista Blvd.	390' E of Harvest Oaks Dr.	2,745	0.52	2U-CG	8	22	50%	425	221	8	213	
Old Denton Rd.	Westport Pkwy.	SH 170 WB	2,740	0.52	2U-R	31	22	100%	150	156	28	128	
N Beach St.	SH 170 WB	SH 170 EB	405	0.08	6U	57	20	50%	700	161	3	158	
N Beach St.	410' N of Saratoga Downs	Caspian Cv.	3,325	0.63	4D	57	20	50%	700	882	24	858	
Alta Vista Rd.	Caspian Cove	Timberland Blvd.	390	0.07	4D	171	207	50%	700	103	14	89	
Cleveland-Gibbs Rd.	N City Limits	Litsey Rd.	4,915	0.93	4D	128	151	100%	700	2,606	260	2,347	
Park Vista Blvd.	SH 170 WB	SH 170 EB	510	0.10	6U	103	325	100%	700	406	41	364	
Park Vista Blvd.	SH 170 EB	Westport Pkwy.	2,375	0.45	4D	103	325	100%	700	1,259	193	1,067	
Park Vista Blvd.	Westport Pkwy.	Keller-Haslet Rd.	3,255	0.62	4D	71	360	100%	700	1,726	266	1,460	
Park Vista Blvd.	Keller-Haslet Rd.	Timberland Blvd.	2,965	0.56	2U-CG	22	8	100%	425	477	17	460	
Independence Pkwy.	Henrietta Creek Rd.	1660' S of Henrietta Creek Rd.	1,660	0.31	4D	140	211	100%	700	880	110	770	
Independence Pkwy.	1660' S of Henrietta Creek Rd.	SH 170 WB	1,250	0.24	4D	140	211	100%	700	663	83	580	
Independence Pkwy.	SH 170 WB	SH 170 EB	465	0.09	6U	140	211	100%	700	370	31	339	
Independence Pkwy.	SH 170 EB	Westport Pkwy.	4,410	0.84	4D	38	171	100%	700	2,339	175	2,164	
SUBTOTAL			61,815	11.71						19,681	2,231	17,450	0

#### Service Area AA

<b>Service Area AA</b>													10/2/201
ROADWAY	FROM	то	LENGTH (ft)	LENGTH (mi)	EXIST LANES	P HOU	PM EAK JR VOL S SB/WB	% 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
Dale Earnhardt Way	N City Limits	IH-35W SBFR	1,250	0.24	4U	51	90	50%	650	308	17	291	
Eagle Pkwy.	FM 156	Heritage Pkwy.	7,705	1.46	6D	436	241	100%	700	6,129	988	5,141	
Eagle Pkwy.	Heritage Pkwy.	IH-35W SBFR	1,240	0.23	6D	448	226	100%	700	986	158	828	
Intermodal Pkwy.	FM 156	Blue Mound Rd. (Old FM 156)	3,705	0.70	2U-CG	97	171	100%	425	596	188	408	
Westport Pkwy.	W City Limits	550' W of Heritage Pkwy.	870	0.16	4D	355	597	50%	700	231	78	152	
Westport Pkwy.	550' W of Heritage Pkwy.	Heritage Pkwy.	550	0.10	4D	355	597	50%	700	146	50	96	
Westport Pkwy.	Heritage Pkwy.	IH-35W SBFR	910	0.17	4D	494	537	50%	700	241	89	152	
FM 156	N City Limits	SH 114 Bridge	5,250	0.99	2U-H	230	373	50%	700	696	300	396	
FM 156	SH 114 Bridge	760' N of Texan Dr.	1,050	0.20	2U-H	323	439	100%	700	278	152	127	
FM 156	760' N of Texan Dr.	Texan Dr.	760	0.14	4U	323	439	100%	650	374	110	265	
FM 156	6740' N of Intermodal Pkwy.	5510' N of Intermodal Pkwy.	6,740	1.28	2U-H	136	176	50%	700	894	199	694	
FM 156	5510' N of Intermodal Pkwy.	Intermodal Pkwy.	5,510	1.04	2U-H	136	176	100%	700	1,461	326	1,135	
FM 156	Intermodal Pkwy.	1280' S of Intermodal Pkwy.	1,280	0.24	2U-H	159	356	100%	700	339	125	215	
Heritage Pkwy.	Eagle Pkwy.	Alliance Blvd.	6,165	1.17	6D	53	26	100%	700	4,904	92	4,812	
Heritage Pkwy.	Alliance Blvd.	Westport Pkwy.	5,665	1.07	4D	42	247	100%	700	3,004	310	2,694	
SUBTOTAL			48,650	9.21						20,588	3,181	17,407	0

Service Area B

ROADWAY	FROM	то	LENGTH	LENGTH	EXIST	1	PM EAK	% IN SERVICE	VEH-MI CAPACITY	VEH-MI SUPPLY	VEH-MI DEMAND	EXCESS CAPACITY	EXISTING DEFICIENCIES
ROADWAT	FROM		(ft)	(mi)	LANES		JR VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						NB/EB	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Willow Springs Rd.	515' S of Twisting Star Dr.	Blue Mound Rd.	4,935	0.93	2U	65	12	100%	425	794	72	722	
Willow Springs Rd.	Blue Mound Rd	US 287 SBFR	1,275	0.24	2U	65	12	100%	425	205	19	187	
Willow Springs Rd.	US 287 NBFR	Avondale Haslet Rd.	6,555	1.24	2U	299	121	100%	425	1,055	521	534	
Blue Mound Rd.	Willow Springs Rd.	Future Wagley Robertson Rd	5,295	1.00	2U	142	137	100%	425	852	279	573	
Avondale Haslet Rd.	US 287 NBFR	Willow Springs Rd.	7,800	1.48	2U	339	339	100%	425	1,256	1,001	255	
Avondale Haslet Rd.	Willow Springs Rd.	Sendera Ranch Blvd.	3,720	0.70	2U	393	339	100%	425	599	516	83	
Sendera Ranch Blvd.	Avondale Haslet Rd.	Diamondback Ln.	4,940	0.94	2U-CG	300	151	100%	550	1,029	422	607	
Sendera Ranch Blvd.	Diamondback Ln.	Mustang Ridge Dr.	1,295	0.25	4D	197	106	100%	700	687	74	612	
Sendera Ranch Blvd.	Mustang Ridge Dr.	Snaffle Bit Tr.	1,215	0.23	2U-CG	67	57	100%	550	253	29	225	
Sendera Ranch Blvd.	Snaffle Bit Tr.	Suncatcher Way	3,650	0.69	4D	16	17	100%	700	1,936	23	1,913	
Diamondback Ln.	Sendera Ranch Blvd.	Rancho Canyon Way	4,840	0.92	4U	48	141	100%	550	2,017	173	1,843	
Rancho Canyon Way	Salida Rd.	80' E of Cabo St.	2,525	0.48	4U	48	140	100%	550	1,052	90	962	
Saginaw Blvd.	Avondale Haslet Rd.	1440' S of Avondale Haslet Rd.	1,440	0.27	4D	530	530	100%	700	764	289	475	
Saginaw Blvd.	1440' S of Avondale Haslet Rd.	S City Limits	2,360	0.45	2U-H	530	530	100%	700	626	474	152	
SUBTOTAL			51,845	9.82						13,125	3,982	9,143	0

Service Area C

Service Area C	1		1	1									10/2/2012
							PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES		R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						_	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Basswood Blvd.	Blue Mound Rd. (FM 156)	960' E of Blue Mound Rd. (FM 156)	960	0.25	2U-CG	0	0	50%	425	105	0	105	
Basswood Blvd.	Horseman Rd.	Candler Dr.	1,535	0.29	2U-CG		10	50%	425	124	3	121	
Basswood Blvd.	Candler Dr.	Old Santa Fe Tr.	525	0.10	4D	60	177	50%	700	139	12	127	
Basswood Blvd.	Old Santa Fe Tr.	IH-35W SB	1,115	0.21	6D	120	354	50%	700	443	50	393	
E. Harmon Rd.	Blue Mound Rd. (FM 156)	Harmon Rd.	5,205	0.99	4U	463	410	100%	650	2,563	861	1,702	
Harmon Rd.	Keller Hicks Rd.	Golden Heights Rd.	4,505	0.85	2U-R	128	369	100%	150	256	424	-168	168
Harmon Rd.	Golden Heights Rd.	Bonds Ranch Rd.	2,615	0.50	2U	36	36	100%	425	421	36	385	
Harmon Rd.	Bonds Ranch Rd.	Heritage Trace Pkwy.	3,440	0.65	2U-CG	331	326	100%	425	554	428	126	
Harmon Rd.	Heritage Trace Pkwy.	US 287 SBFR	6,410	1.21	2U	316	392	100%	425	1,032	860	172	
Harmon Rd.	US 287 SBFR	E. Harmon Rd.	875	0.17	4D	463	410	100%	700	464	145	319	
Wagley Robertson Rd.	125' N of Hawks Landing Rd.	80' S of Darby Ln.	2,275	0.43	2U-CG	1	2	100%	425	366	1	365	
Wagley Robertson Rd.	Bonds Ranch Rd.	Hillwood Blvd.	3,895	0.74	2U	107	110	50%	425	314	80	234	
Wagley Robertson Rd.	Hillwood Blvd.	440' N of Coneflower Tr.	3,315	0.63	2U	107	110	50%	425	267	68	199	
Wagley Robertson Rd.	150' N of Mystic River Tr.	700' S of Mystic River Tr.	850	0.16	2U	249	113	50%	425	68	29	39	
Blue Mound Rd. (FM 156)	Bonds Ranch Rd.	Heritage Trace Pkwy.	6,320	1.20	2U-H	360	142	100%	700	1,676	600	1,076	
Blue Mound Rd. (FM 156)	Heritage Trace Pkwy.	Harmon Rd.	4,560	0.86	2U-H	472	543	100%	700	1,209	877	333	
Blue Mound Rd. (FM 156)	Harmon Rd.	1710' S of Hidden Lake Rd.	3,245	0.61	2U-H	874	892	100%	700	860	1,085	-225	225
Horseman Rd.	Future Bailey Boswell Rd.	Canchim St.	2,520	0.48	2U-CG	10	10	100%	425	406	10	396	
Horseman Rd.	Canchim St.	550' N of Basswood Blvd.	1,355	0.26	3U	10	10	100%	650	500	5	495	
Horseman Rd.	550' N of Basswood Blvd.	Basswood Blvd.	550	0.10	4D	10	10	100%	700	292	2	290	
Heritage Trace Pkwy.	220' SW of Drovers View Tr.	Blue Mound Rd. (FM 156)	1,890	0.36	4D	122	208	100%	700	1,002	118	884	
Heritage Trace Pkwy.	130' S of Creosote Dr.	Harmon Rd.	2,080	0.39	4D	44	66	100%	700	1,103	43	1,060	
Heritage Trace Pkwy.	Harmon Rd.	IH-35W SBFR	4,210	0.80	4D	469	572	100%	700	2,233	830	1,403	
Golden Heights Rd. (Harmon)	Harmon Rd.	Golden Triangle Blvd.	2,645	0.50	2U	36	36	100%	425	426	36	390	
Golden Triangle Blvd.	Harmon Rd.	Misty Redwood Tr.	2,245	0.43	4D	45	22	100%	700	1,191	29	1,162	
Golden Triangle Blvd.	Golden Heights Rd.	IH-35 SBFR	2,035	0.39	5U	238	238	100%	700	1,079	183	896	
North Tarrant Pkwy.	US 287 NBFR	815' W of Porter Creek Dr.	3,440	0.65	6D	847	822	100%	700	2,736	1,087	1,649	
Bonds Ranch Rd.	Wagley Robertson Rd.	Foothill Dr.	625	0.12	2U	456	456	50%	425	50	54	-4	4
Bonds Ranch Rd.	Foothill Dr.	Blue Mound Rd. (FM 156)	7,355	1.39	2U	456	456	100%	425	1,184	1,270	-86	86
Bonds Ranch Rd.	Blue Mound Rd. (FM 156)	Harmon Rd.	5,295	1.00	2U	401	401	100%	425	852	804	48	
Keller Hicks Rd.	Harmon Rd.	IH-35 SBFR	1,895	0.36	2U	171	444	100%	425	305	221	84	
SUBTOTAL			88,825	16.82						24,116	10.250	13,866	483

Service Area D

Service Area D		_	1										10/2/2012
							PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES		R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
Timberland Blvd.	IH-35W SBFR	IH-35W NBFR	315	0.06	2U	<b>NB/EB</b>	<b>SB/WB</b> 408	100%	PER LN 425	TOTAL 51	TOTAL 43	VEH-MI 8	VEH-MI
Timberland Blvd.	IH-35W NBFR	N Riverside Dr.	1,665	0.06	4D	315	408	100%	700	883	228	655	
Timberland Blvd.	N Riverside Dr.	Hollow Valley Dr.	5,145	0.32	4D 4D	375	380	100%	700	2.728	736	1,993	
Timberland Blvd.	Hollow Valley Dr.	Alta Vista Rd.	4,445	0.97	4D 4D	269	355	100%	700	2,726	526	1,832	
Timberland Blvd.	Alta Vista Rd.	425' E of Lillybrook Ln.	2,055	0.84	4D 4D	292	172	50%	700	545	90	455	
Timberland Blvd.	425' E of Lillybrook Ln.	Caylor Rd.	1,600	0.39	2U-R	46	36	50%	150	45	12	33	
Timberland Blvd.	Park Vista Blvd.	390' E of Harvest Oaks Dr.	2,745	0.50	2U-CG	8	22	50%	425	221	8	213	
Keller-Hicks Rd.	Old Denton Rd.	600' W of Ridgeview Cir.	5,420	1.03	2U-CG	308	284	100%	425	873	608	265	
Keller-Hicks Rd.	600' W of Ridgeview Cir.	Ridgeview Cir.	605	0.11	4U	308	284	100%	650	298	68	230	
Keller-Hicks Rd.		Alta Vista Rd.	1,730	0.11	5U	308	284	100%	700	917	194	723	
Keller-Hicks Rd. Keller-Hicks Rd.	Ridgeview Cir. Alta Vista Rd.	Park Vista Blvd.		0.33	2U		513	100%	700 425	440	531	-91	
			2,735		_	513							91
Keller-Hicks Rd.	Park Vista Blvd. IH-35W SB	Katy Rd.	5,290	1.00	2U	378	329	100% 100%	425 425	852 32	708 66	143	
Golden Triangle Blvd.		IH-35W NBFR	200	0.04	2U	907	825		-	-		-33	33
Golden Triangle Blvd.	IH-35W NBFR Old Denton Rd.	Old Denton Rd.  Beach St.	2,425	0.46 1.05	2U 2U	907	825 585	100% 100%	425 425	390 889	795 1,249	-405 -361	405
Golden Triangle Blvd.			5,520		_	610			-		, -		361
Golden Triangle Blvd.	Beach St.	Future Park Vista Blvd.	5,235	0.99	2U	507	586	100%	425 425	843	1,084	-241	241
Golden Triangle Blvd.	Future Park Vista Blvd.	Golden Triangle Cir.	2,130	0.40	2U	867	867	100%	-	343	699	-356	356
Golden Triangle Blvd.	Golden Triangle Cir.	Katy Rd.	3,365	0.64	2U	867	867	100%	425	542	1,105	-563	563
Heritage Trace Pkwy.	IH-35W SB	Old Denton Rd.	3,190	0.60	6D	789	1,098	100%	700	2,538	1,140	1,397	
Heritage Trace Pkwy.	Old Denton Rd.	Beach St.	5,415	1.03	4D	1,125	897	100%	700	2,872	2,074	798	
Heritage Trace Pkwy.	Beach St.	Ray White Rd.	5,895	1.12	4D	906	916	100%	700	3,126	2,034	1,092	
Kroger Dr.	Ray White Rd.	775' E of Chiefton Way	1,650	0.31	3U	610	909	100%	650	609	475	135	
Kroger Dr.	775' E of Chiefton Way	Denton Hwy. (US 377)	3,455	0.65	2U	610	909	100%	425	556	994	-438	438
N Tarrant Pkwy.	IH-35W SB	IH-35W NBFR	270	0.05	6D	532	454	100%	700	215	50	164	
N Tarrant Pkwy.	IH-35W NBFR	Old Denton Rd.	3,160	0.60	4D	869	680	100%	700	1,676	927	749	
N Tarrant Pkwy.	Old Denton Rd.	Beach St.	5,405	1.02	4D	843	776	100%	700	2,866	1,657	1,209	
N Tarrant Pkwy.	Beach St.	Park Vista Blvd.	5,520	1.05	4D	1,375	1,184	100%	700	2,927	2,675	252	
N Tarrant Pkwy.	Park Vista Blvd.	Parkwood Hill Blvd.	2,065	0.39	4D	1,258	1,308	100%	700	1,095	1,004	92	
N Tarrant Pkwy.	Parkwood Hill Blvd.	Denton Hwy. (US 377)	2,210	0.42	4D	1,334	1,311	100%	700	1,172	1,107	65	
Summerfields Blvd.	N Riverside Dr.	Cannonwood Dr.	930	0.18	2U-CG	272	290	100%	425	150	99	51	
Summerfields Blvd.	Cannonwood Dr.	Buttonwood Dr.	1,820	0.34	5D	272	290	100%	700	1,206	194	1,013	
Summerfields Blvd.	Buttonwood Dr.	Eastwind Dr.	1,595	0.30	6D	272	290	100%	700	1,269	170	1,099	
Summerfields Blvd.	Eastwind Dr.	Beach St.	955	0.18	5D	272	290	100%	700	633	102	531	
Basswood Blvd.	IH-35W NBFR	Sandshell Blvd.	1,721	0.33	4D	1,158	775	50%	700	456	315	141	
Basswood Blvd.	Sandshell Blvd.	N Riverside Dr.	2,215	0.42	4D	1,225	824	50%	700	587	430	158	
Basswood Blvd.	N Riverside Dr.	N Beach St.	3,890	0.74	4D	1,000	855	50%	700	1,031	683	348	
Basswood Blvd.	N Beach St.	Park Vista Blvd.	6,850	1.30	4D	1,054	875	50%	700	1,816	1,251	565	
Basswood Blvd.	Park Vista Blvd.	Parkwood Blvd.	1,325	0.25	4D	832	1,164	50%	700	351	250	101	
Basswood Blvd.	Parkwood Blvd.	Denton Hwy. (US 377)	775	0.15	4D	832	1,255	50%	700	205	153	52	
Old Denton Rd.	SH 170 WB	SH 170 EB	550	0.10	6U	60	231	100%	700	438	30	407	
Old Denton Rd.	SH 170 EB	190' N of Hidden Valley Dr.	965	0.18	2U	60	231	100%	425	155	53	102	
Old Denton Rd.	190' N of Hidden Valley Dr.	135' S of San Fernando Dr.	895	0.17	2U-CG	60	231	100%	425	144	49	95	
Old Denton Rd.	135' S of San Fernando Dr.	325' N of Sawtimber Tr.	870	0.16	2U	69	231	100%	425	140	49	91	
N Riverside Dr.	325' N of Sawtimber Tr.	Timberland Blvd.	5,825	1.10	4D	179	179	100%	700	3,089	395	2,694	
N Riverside Dr.	Timberland Blvd.	Keller-Hicks Rd.	1,065	0.20	2U-CG	188	100	100%	425	171	58	113	
N Riverside Dr.	Keller-Hicks Rd.	410' N of Golden Triangle Blvd.	2,025	0.38	2U-CG	288	288	100%	425	326	221	105	
N Riverside Dr.	410' N of Golden Triangle Blvd.	Golden Triangle Blvd.	410	0.08	2U	288	288	100%	425	66	45	21	
Old Denton Rd.	Golden Triangle Blvd.	720' N of Prestige Rd.	825	0.16	2U-CG	182	182	100%	425	133	57	76	

Service Area D

Service Area D					1		284	0/ 151	\/E11.841	\/=!! <b>.</b>	\/=!! B#!	EVOEGO	10/2/2012
							PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES		R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
			=00	0.11	01.1		SB/WB	1000/	PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Old Denton Rd.	720' N of Prestige Rd.	Prestige Rd.	720	0.14	2U	182	182	100%	425	116	50	66	
Old Denton Rd.	Prestige Rd.	Crawford Farms Dr.	1,590	0.30	2U-CG	182	182	100%	425	256	109	147	
Old Denton Rd.	Crawford Farms Dr.	Heritage Trace Pkwy.	3,685	0.70	2U	182	182	100%	425	593	253	340	
Old Denton Rd.	Heritage Trace Pkwy.	Dalton St.	1,325	0.25	4D	361	367	100%	700	703	183	520	
Old Denton Rd.	Dalton St.	N Tarrant Pkwy.	5,190	0.98	2U	361	367	100%	425	836	716	120	
Old Denton Rd.	N Tarrant Pkwy.	Summerfields Blvd.	3,750	0.71	2U-CG	275	377	100%	425	604	463	141	
Old Denton Rd.	Summerfields Blvd.	710' S of Princess Victoria Ct.	1,535	0.29	2U-CG	354	412	100%	425	247	223	24	
N Riverside Dr.	710' S of Princess Victoria Ct.	Basswood Blvd.	3,595	0.68	4D	354	412	100%	700	1,906	522	1,385	
N Beach St.	410' N of Saratoga Downs	390' N of Timberland Blvd.	3,325	0.63	4D	57	20	50%	700	882	24	858	
Alta Vista Rd.	390' N of Timberland Blvd.	Timberland Blvd.	390	0.07	4D	171	207	50%	700	103	14	89	
Alta Vista Rd.	Timberland Blvd.	Keller-Hicks Rd.	5,440	1.03	4D	502	488	100%	700	2,885	1,019	1,865	
N Beach St.	Keller-Hicks Rd.	Golden Triangle Blvd.	3,940	0.75	4D	458	423	100%	700	2,089	657	1,432	
N Beach St.	Golden Triangle Blvd.	Vista Meadows Dr.	3,925	0.74	4D	487	587	100%	700	2,081	798	1,283	
N Beach St.	Vista Meadows Dr.	Alta Vista Rd.	945	0.18	2U-CG	505	441	100%	425	152	169	-17	17
N Beach St.	Alta Vista Rd.	Heritage Trace Pkwy.	1,170	0.22	2U	535	597	100%	425	188	251	-62	62
N Beach St.	Heritage Trace Pkwy.	Heritage Glen Dr.	2,480	0.47	2U	523	629	100%	425	399	541	-142	142
N Beach St.	Heritage Glen Dr.	155' S of Springview Ln.	3,415	0.65	2U-CG	523	629	100%	425	550	745	-195	195
N Beach St.	155' S of Springview Ln.	380' S of Spring Mist Cv.	765	0.14	4D	823	787	100%	700	406	233	172	
N Beach St.	380' S of Spring Mist Cv.	N Tarrant Pkwy.	945	0.18	6D	823	787	100%	700	752	288	464	
N Beach St.	N Tarrant Pkwy.	Summerfields Blvd.	3,025	0.57	6D	1,282	1,282	100%	700	2,406	1,469	937	
N Beach St.	Summerfields Blvd.	Basswood Blvd.	4,785	0.91	6D	1,413	927	100%	700	3,806	2,121	1,686	
Park Vista Blvd.	Caylor Rd.	Keller-Hicks Rd.	5,780	1.09	4D	274	280	100%	700	3,065	606	2,459	
Ray White Rd.	Wyndrook St.	320' S of Pinellas Ave.	795	0.15	2U	227	220	100%	425	128	67	61	
Ray White Rd.	320' S of Pinellas Ave.	230' N of Wall Price Keller Rd.	1,680	0.32	2U	227	220	50%	425	135	71	64	
Ray White Rd.	230' N of Wall Price Keller Rd.	Wall Price Keller Rd.	230	0.04	2U	378	477	100%	425	37	37	0	0
Ray White Rd.	Wall Price Keller Rd.	145' N of Archer Dr.	620	0.12	2U	378	477	50%	425	50	50	0	0
Ray White Rd.	145' N of Archer Dr.	170' N of Mirage Dr.	500	0.09	2U	378	477	100%	425	80	81	0	0
Ray White Rd.	170' N of Mirage Dr.	Heritage Trace Pkwy.	775	0.15	4D	378	477	100%	700	411	125	285	
Ray White Rd.	Heritage Trace Pkwy.	Shiver Rd.	3,495	0.66	4D	346	556	100%	700	1,853	597	1,256	
Ray White Rd.	Shiver Rd.	N Tarrant Pkwy.	2,645	0.50	2U-CG	647	586	100%	425	426	618	-192	192
Park Vista Blvd.	N Tarrant Pkwy.	Basswood Blvd.	7,855	1.49	4D	544	544	100%	700	4,166	1,619	2,547	
Parkwood Hill Blvd.	N Tarrant Pkwy.	Champlain Dr.	910	0.17	2U-CG	140	214	100%	425	146	61	85	
Parkwood Hill Blvd.	Champlain Dr.	Redwood Tr.	2,270	0.43	3U	197	242	100%	650	838	189	650	
Parkwood Hill Blvd.	Redwood Tr.	Basswood Blvd.	4,725	0.89	2U-CG	232	158	100%	425	761	349	412	
Denton Hwy. (US 377)	Wall Price Keller Rd.	Kroger Dr.	1,940	0.37	7U	1,631	1,631	100%	700	1,543	1,199	345	
Denton Hwy. (US 377)	Kroger Dr.	N Tarrant Pkwy.	6,065	1.15	7U	1,450	1,450	100%	700	4,824	3,331	1,493	
Denton Hwy. (US 377)	N Tarrant Pkwy.	Basswood Blvd.	7,615	1.44	7U	1,713	1,805	100%	700	6,057	5,074	983	
SUBTOTAL			230,206	43.60						91,752	52,416	39,336	3.098

Service Area E

						F	PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES	HC	OUR	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						NB/EB	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Robertson Rd.	680' W of Future Lake Country	Boat Club Rd.	4,570	0.87	2U	223	223	100%	425	736	385	350	
Eagle Ranch Blvd.	Dead End	Boat Club Rd.	4,365	0.83	2U-CG	108	198	100%	425	703	253	450	
Lake Country Dr.	Existing Dead End	Boat Club Rd.	10,765	2.04	2U	309	309	100%	425	1,733	1,259	474	
Boat Club Rd.	W City Limits	Cape Royale Dr.	4,705	0.89	2U-H	370	370	100%	700	1,248	659	588	
Boat Club Rd	Cape Royale Dr.	Park Dr.	6,900	1.31	2U-H	370	370	100%	700	1,830	967	863	
Boat Club Rd.	Bailey Boswell	Lake Country Dr.	445	0.08	5U	1,026	1,038	100%	700	236	174	62	
Boat Club Rd.	Lake Country Dr.	WJ Boaz	3,515	0.67	5U	1,026	1,038	100%	700	1,864	1,374	490	
Boat Club Rd.	WJ Boaz	1,905' S. of Robertson Rd.	4,535	0.86	5U	784	784	50%	700	1,202	673	529	
Park Dr.	Boat Club Rd.	Park Dr.	5,345	1.01	2U	19	19	100%	425	860	37	823	
Park Dr.	Park Dr.	815' E. of Park Dr.	815	0.15	2U-CG	19	19	100%	425	131	6	125	
Heritage Trace Pkwy.	Old Decatur Rd.	BUS 287	335	0.06	2U	100	100	100%	425	54	13	41	
Bailey Boswell Rd.	Boat Club Rd.	165' E of Axis Deer Run	2,020	0.38	4U	530	530	50%	650	497	203	295	
Bailey Boswell Rd.	40' W of Bowman Roberts Rd.	40' W of Old Decatur Rd.	8,015	1.52	4U	861	933	100%	650	3,947	2,723	1,224	
Old Decatur Rd.	285' S of Milo Dr.	200' S of Millstone Tr.	890	0.17	2U	137	137	100%	425	143	46	97	
Wagley Robertson Rd.	Hillwood Blvd.	440' N of Coneflower Tr.	3,315	0.63	2U	107	110	50%	425	267	68	199	
BUS 287	260' S of Bonds Ranch Rd.	Heritage Trace Pkwy.	9,872	1.87	4D	585	585	100%	700	5,235	2,188	3,048	
BUS 287	Heritage Trace Pkwy.	2,300' NW of Bailey Boswell Rd.	6,125	1.16	4D	585	585	100%	700	3,248	1,357	1,891	
WJ Boaz	Boat Club Rd.	130' W of Old Decatur	10,865	2.06	2U	228	255	50%	425	875	497	378	
SUBTOTAL			87,397	16.55						24,809	12,881	11,927	0

Service Area F

							PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
NOADWAT	1 10.11	.0	(ft)	(mi)	LANES		IR VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
			(,	()			SB/WB	7	PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Basswood Blvd.	Blue Mound Rd. (FM 156)	960' E of Blue Mound Rd. (FM 156)	960	0.18	2U-CG	0	0	50%	425	77	0	77	V = 11 1111
Basswood Blvd.	Horseman Rd.	Candler Dr.	1,535	0.29	2U-CG	10	10	50%	425	124	3	121	
Basswood Blvd.	Candler Dr.	Old Santa Fe Tr.	525	0.10	4D	60	177	50%	700	139	12	127	
Basswood Blvd.	Old Santa Fe Tr.	IH-35W SB	1,115	0.21	6D	120	354	50%	700	443	50	393	
Basswood Blvd.	IH-35W SB	670 E. of IH-35W NBFR	1,090	0.21	6D	1,158	775	50%	700	434	200	234	
Basswood Blvd.	670 E. of IH-35W NBFR	Sandshell Blvd.	1,045	0.20	4D	1,158	775	50%	700	277	191	86	
Basswood Blvd.	Sandshell Blvd.	N Riverside Dr.	2,215	0.42	4D	1,225	824	50%	700	587	430	158	
Basswood Blvd.	N Riverside Dr.	N Beach St.	3,890	0.74	4D	954	954	50%	700	1,031	703	329	
Basswood Blvd.	N Beach St.	Park Vista Blvd.	6,850	1.30	4D	832	1,164	50%	700	1,816	1,295	522	
Basswood Blvd.	Park Vista Blvd.	Parkwood Blvd.	1,325	0.25	4D	832	1,164	50%	700	351	250	101	
Basswood Blvd.	Parkwood Blvd.	Denton Hwy. (US 377)	775	0.15	4D	832	1,255	50%	700	205	153	52	
Western Center Blvd.	Blue Mound Rd. (FM 156)	410' W. of Blue Mound Rd. (FM 156)	410	0.08	2U	1,444	933	100%	425	66	185	-119	119
Western Center Blvd.	410' W. of Blue Mound Rd. (FM 156)	,	3,030	0.57	4D	1,444		100%	700	1,607	1,364	243	110
Western Center Blvd.	Robert W. Downing Rd.	Old Denton Rd.	4,880	0.92	6D	1,317	923	100%	700	3,882	2.070	1,812	
Western Center Blvd.	Old Denton Rd.	Sandshell Blvd.	2.340	0.44	6D	657	1,312	100%	700	1,861	873	989	
Western Center Blvd.	Sandshell Blvd.	N Riverside Dr.	1,435	0.27	5D	657	1,312	100%	700	951	535	416	
Western Center Blvd.	N Riverside Dr.	Western Center Bridge (West)	980	0.19	4D	575	919	100%	700	520	277	242	
Western Center Blvd.	Western Center Bridge (West)	Western Center Bridge (East)	330	0.06	6D	575	919	100%	700	263	93	169	
Western Center Blvd.	Western Center Bridge (Fast)	N Beach St.	3,255	0.62	4D	1,237	1,237	100%	700	1,726	1,525	201	
Western Center Blvd.	N Beach St.	E City Limits	4,880	0.92	6D	1,237	1,237	50%	700	1,941	1,143	798	
Cantrell Sansom Rd.	Blue Mound Rd. (FM 156)	455' W of Nafex Way	2.980	0.56	2U	126	126	50%	425	240	71	169	
Cantrell Sansom Rd.	455' W of Nafex Way	145' W of Maiden Ln.	1,105	0.21	2U	126	126	100%	425	178	53	125	
Cantrell Sansom Rd.	145' W of Maiden Ln.	190 E. of Deerfoot Tr.	1,100	0.21	2U-CG	274	102	100%	425	177	78	99	
Cantrell Sansom Rd.	190 E. of Deerfoot Tr.	195' W. of Lionfish Way	780	0.15	4D	274	102	100%	700	414	56	358	
Cantrell Sansom Rd.	195' W. of Lionfish Way	Mark IV Pkwy.	697	0.13	2U-CG	274	102	100%	425	112	50	63	
Cantrell Sansom Rd.	Mark IV Pkwy.	Old Denton Rd.	1,680	0.32	2U-R	399	146	100%	150	95	173	-78	78
Fossil Creek Blvd.	IH-35W NBFR	Sandshell Blvd.	810	0.15	4D	46	238	100%	700	430	44	386	70
Fossil Creek Blvd.	Sandshell Blvd.	N Riverside Dr.	2,835	0.54	4D	181	290	100%	700	1,503	253	1,251	
Fossil Creek Blvd.	N Riverside Dr.	N Beach St.	3,335	0.63	4D	193	263	100%	700	1,769	288	1,481	
Northeast Pkwy.	Blue Mound Rd. (FM 156)	Atlee Pkwy.	3,715	0.70	2U-CG	30	73	100%	425	598	72	526	
Northeast Pkwy.	Atlee Pkwy.	Superior Pkwy.	1,990	0.38	2U-CG	26	30	100%	425	320	21	299	
Northeast Pkwy.	Mark IV Pkwy.	Great Southwest Pkwy.	3,805	0.72	4D	48	48	100%	700	2,018	69	1,949	
Northern Cross Blvd.	IH-35W NBFR	Sylvania Ave.	1,035	0.20	4D	187	171	100%	700	549	70	479	
Northern Cross Blvd.	Sylvania Ave.	N Riverside Dr.	1,990	0.38	4D	187	171	100%	700	1,055	135	920	
Northern Cross Blvd.	N Riverside Dr.	N Beach St.	3,715	0.70	4D	218	157	100%	700	1,970	264	1,706	
Railhead Rd.	Loop 820 EBFR	Gold Spike Dr.	2,325	0.44	2U-CG	50	50	100%	425	374	44	330	
Railhead Rd.	Gold Spike Dr.	Blue Mound Rd. (FM 156)	3,295	0.62	2U-CG	50	50	100%	425	530	62	468	
Meacham Blvd.	BUS 287	Gold Spike Dr.	1,115	0.02	4D	242	242	100%	700	591	102	489	
Meacham Blvd.	Gold Spike Dr.	Railroad	2,085	0.39	4D	242	242	100%	700	1,106	191	914	
Meacham Blvd.	Railroad	Blue Mound Rd. (FM 156)	1,035	0.33	6D	242	242	100%	700	823	95	728	
Meacham Blvd.	Blue Mound Rd. (FM 156)	315' E of Blue Mound Rd.	315	0.20	6D	538	538	100%	700	251	64	186	
Meacham Blvd.	315' E of Blue Mound Rd.	Meacham Blvd. Bridge (West)	2,450	0.46	3U	538	538	100%	650	905	500	405	
Meacham Blvd.	Meacham Blvd. Bridge (West)	Meacham Blvd. Bridge (West)	860	0.46	4D	538	538	100%	700	456	175	281	
Meacham Blvd.	Meacham Blvd. Bridge (West)	275' E. of Lone Star Blvd.	660	0.10	4D 4D	538	538	100%	700	350	135	215	
Meacham Blvd.	275' E. of Lone Star Blvd.	Deen Rd.	995	0.13	6D	538	538	100%	700	791	203	589	
Meacham Blvd.	Deen Rd.	Mark IV Pkwy.	1,360	0.19	2U-CG	608	1,400	100%	425	219	517	-298	200
Meacham Blvd.	Mark IV Pkwy.	590' W of Gemini Pl.	1,360	0.26	2U-CG	608	1,400	100%	425 425	219	508	-298	298
Meacham Blvd.	590' W of Gemini Pl.	Sylvania Ave.	1,335 2,510	0.25	6D	904	1,400 842	100%	700	1.997	830	-293 1.167	293

Service Area F

							PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
KOADWAT	T KOM	10	(ft)	(mi)	LANES		IR VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
			(,	(,			SB/WB	7	PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Meacham Blvd.	Svlvania Ave.	345' E of Polaris Dr.	935	0.18	6D	805	836	100%	700	744	291	453	V 2.11 WII
Meacham Blvd.	345' E of Polaris Dr.	Mercantile Dr.	1,770	0.34	4D	805	836	100%	700	939	550	389	
Meacham Blvd.	Mercantile Dr.	N Beach St.	2,925	0.55	4D	777	777	100%	700	1,551	861	690	
Great Southwest Pkwy.	Future Lone Star Blvd.	Mark IV Pkwv.	3,005	0.57	2U-CG	45	72	100%	425	484	67	417	
Great Southwest Pkwv.	Mark IV Pkwv.	Northeast Pkwy.	1,660	0.31	4D	34	110	100%	700	880	45	835	
Great Southwest Pkwy.	Northeast Pkwy.	IH-35W SBFR	730	0.14	4D	34	110	100%	700	387	20	367	
Terminal Rd.	BUS 287	1410' E of BUS 287	1,410	0.27	2U	529	529	50%	425	113	141	-28	28
Terminal Rd.	1410' E of BUS 287	Blue Mound Rd. (FM 156)	1,195	0.23	3U	529	529	100%	650	441	240	202	20
Terminal Rd.	Blue Mound Rd. (FM 156)	Decatur Ave.	1,195	0.23	4U	558	558	100%	650	588	253	336	
Terminal Rd.	Decatur Ave.	Deen Rd.	4,315	0.82	2U-CG	234	315	100%	425	695	449	246	
Long Ave.	Deen Rd.	Sylvania Ave.	6,160	1.17	4D	335	335	100%	700	3.267	782	2.485	
Long Ave.	Sylvania Ave.	Long Ave. Bridge (West)	2,195	0.42	4D	272	272	100%	700	1,164	226	938	
Long Ave.	Long Ave. Bridge (West)	Long Ave. Bridge (West)	2,340	0.44	4D	348	335	100%	700	1,241	303	938	
Long Ave.	Long Ave. Bridge (West)	N Beach St.	970	0.18	4D	377	377	100%	700	514	139	376	
NE 28th St.	Deen Rd.	Sterling St.	550	0.10	4D	1,445	1,445	50%	700	146	151	-5	5
NE 28th St.	Sterling St.	Braswell Dr.	1,470	0.28	6D	904	842	50%	700	585	243	342	3
NE 28th St.	Braswell Dr.	1105' W of Sylvania Ave.	2,195	0.42	4U	904	842	50%	650	540	363	178	
NE 28th St.	1105' W of Sylvania Ave.	Sylvania Ave.	1,105	0.42	5U	904	842	50%	700	293	183	110	
NE 28th St.	Sylvania Ave.	N Beach St.	5,500	1.04	5U	805	836	50%	700	1,458	855	604	
BUS 287	Loop 820 EB	Loop 820 EB Ramp	1,445	0.27	4D	1,020	1,020	50%	700	383	279	104	
BUS 287	Loop 820 EB Ramp	Meacham Blvd.	3,055	0.58	5U	1,020	1,020	50%	700	810	590	220	
BUS 287	Meacham Blvd.	Terminal Rd.	3,785	0.72	5U	745	745	50%	700	1,004	534	470	
Gold Spike Dr.	Railhead Rd.	Meacham Blvd.	2,655	0.50	2U-CG	25	25	100%	425	427	25	402	
FM 156 (Blue Mound Rd.)	Cantrell Sansom Rd.	Loop 820 WBFR	1,585	0.30	4D	1,356	1,312	50%	700	420	400	20	
FM 156 (Blue Mound Rd.)	Loop 820 WBFR	590' N of Northeast Pkwy.	1,160	0.30	4D	667	667	50%	700	308	147	161	
FM 156 (Blue Mound Rd.)	590' N of Northeast Pkwy.	Northeast Pkwy.	590	0.11	2U-H	667	667	50%	700	78	75	4	
FM 156 (Blue Mound Rd.)	Northeast Pkwy.	Railhead Rd.	680	0.13	2U-H	667	667	50%	700	90	86	4	
FM 156 (Blue Mound Rd.)	Railhead Rd.	Meacham Blvd.	4,335	0.82	2U-H	565	565	100%	700	1,149	928	222	
FM 156 (Blue Mound Rd.)	Meacham Blvd.	Terminal Rd.	2,615	0.50	4U	746	746	100%	650	1,288	738	549	
Robert W. Downing Rd.	Old Pecos	285' N of Prairie Hill Rd.	750	0.14	2U-CG	358	264	100%	425	121	88	32	
Robert W. Downing Rd.	285' N of Prairie Hill Rd.	Western Center Blvd.	1,675	0.32	4D	358	264	100%	700	888	197	691	
Mark IV Pkwy.	Western Center Blvd.	Cantrell Sansom Rd.	6,850	1.30	4D	33	56	100%	700	3,633	115	3,517	
Mark IV Pkwy.	Cantrell Sansom	Loop 820 WBFR	2,765	0.52	2U-CG	470	414	100%	425	445	463	-18	18
Mark IV Pkwy.	Loop 820 WBFR	Northeast Pkwy.	1,220	0.23	4D	710	710	100%	700	647	328	319	10
Mark IV Pkwy.	Northeast Pkwy.	Great Southwest Pkwy.	2,315	0.44	4D	1,114	318	100%	700	1.228	628	600	
Mark IV Pkwy.	Great Southwest Pkwy.	Meacham Blvd.	2,205	0.42	4D	1,090	343	100%	700	1,169	598	571	
Deen Rd.	Terminal Rd.	Long Ave.	3,975	0.75	2U-CG	410	410	50%	425	320	309	11	
Deen Rd.	Long Ave.	NE 28th St.	3,705	0.70	2U-CG	410	410	50%	425	298	288	10	
Atlee Pkwy.	Loop 820 EBFR	Northeast Pkwy.	785	0.70	2U-CG	12	51	100%	425	126	9	117	
Atlee Pkwy.	Northeast Pkwy.	405' S of Northeast Pkwy.	405	0.08	2U-CG	0	0	100%	425	65	0	65	
Lone Star Blvd.	580' NW of Franklin Dr.	220' SE of Franklin Dr.	815	0.00	2U-03	25	25	100%	425	131	8	123	
Old Denton Rd.	Western Center Blvd.	Staybridge Pl.	1,675	0.13	5U	515	515	100%	700	888	327	561	
Old Denton Rd.	Staybridge Pl.	Cantrell Sansom Rd.	3,215	0.52	2U-CG	515	515	100%	425	518	627	-110	110
Sandshell Blvd.	Basswood Blvd.	Western Center Blvd.	4,645	0.88	4D	113	95	100%	700	2,463	183	2,280	110
Sandshell Dr.	IH-35 NBFR	Fossil Creek Blvd.	4,043	0.81	4U	151	231	100%	650	2,403	310	1.802	
N Riverside Dr.	Basswood Blvd.	Western Center Blvd.	4,290	0.82	40 4D	312	312	100%	700	2,113	513	1,788	
N Riverside Dr.	Western Center Blvd.	Stone Creek Pkwy.	990	0.82	4D 4D	312	312	100%	700	525	117	408	
N Riverside Dr.	175' N of Redwood Creek Ln.	Fossil Creek Blvd.	3,295	0.19	4D 4D	125	72	100%	700	1,747	123	1.624	

# Service Area F

% 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
100%	700	1,514	90	1,424	
100%	700	878	75	802	
100%	700	438	37	400	
100%	650	507	47	460	
100%	425	371	105	266	
100%	650	305	13	292	
100%	425	296	39	257	
100%	700	745	30	715	

10/2/2012

ROADWAY	FROM	то	LENGTH (ft)	LENGTH (mi)	EXIST LANES	HOU	AK R VOL	SERVICE AREA	CAPACITY PK-HR	SUPPLY PK-HR	DEMAND PK-HR	CAPACITY PK-HR	DEFICIENCIES PK-HR
						NB/EB	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
N Riverside Dr.	Fossil Creek Blvd.	Loop 820 WBFR	2,855	0.54	4D	129	37	100%	700	1,514	90	1,424	ł
N Riverside Dr.	Loop 820 EBFR	Northern Cross	1,655	0.31	4D	206	34	100%	700	878	75	802	
N Riverside Dr.	Northern Cross	825' S. of Northern Cross	825	0.16	4D	206	34	100%	700	438	37	400	
N Riverside Dr. (Mercantile)	825' S. of Northern Cross	Quorum Dr.	1,030	0.20	4U	206	34	100%	650	507	47	460	
N Riverside Dr. (Mercantile)	Quorum Dr.	Meacham Blvd.	2,305	0.44	2U-CG	206	34	100%	425	371	105	266	
N Sylvania Ave.	Northern Cross Blvd.	150' of Melody Hills Dr.	620	0.12	4U	53	60	100%	650	305	13	292	
N Sylvania Ave.	150' of Melody Hills Dr.	Quorum Dr.	1,840	0.35	2U	53	60	100%	425	296	39	257	1
N Sylvania Ave.	Quorum Dr.	Meacham Blvd.	1,405	0.27	4D	53	60	100%	700	745	30	715	
N Sylvania Ave.	Meacham Blvd.	Long Ave.	4,990	0.95	4D	210	390	100%	700	2,646	567	2,079	
N Sylvania Ave.	Long Ave.	36th St.	575	0.11	4D	1,011	743	100%	700	305	191	114	1
N Sylvania Ave.	36th St.	NE 28th St.	5,050	0.96	4U	1,011	743	100%	650	2,487	1,678	809	
N Beach St.	Basswood Blvd.	Western Center Blvd.	4,310	0.82	6D	1,432	1,432	100%	700	3,428	2,338	1,091	
N Beach St.	Western Center Blvd.	Fossil Creek Blvd.	4,145	0.79	6D	1,611	1,611	50%	700	1,649	1,264	384	1
N Beach St.	Fossil Creek Blvd.	Tanacross Dr.	4,630	0.88	4D	1,517	1,467	50%	700	1,228	1,308	-80	80
N Beach St.	Tanacross Dr.	Northern Cross Blvd.	825	0.16	6D	971	728	50%	700	328	133	195	
N Beach St.	Northern Cross Blvd.	Meacham Blvd.	3,825	0.72	6D	1,043	734	50%	700	1,521	644	878	
N Beach St.	Meacham Blvd.	Long Ave.	5,280	1.00	6D	1,273	1,273	50%	700	2,100	1,273	827	
N Beach St.	Long Ave.	NE 28th St.	5,330	1.01	5U	1,077	1,077	50%	700	1,413	1,087	327	
SUBTOTAL			259,717	49.19						102,114	42,587	59,527	1,028

Service Area G

						Р	M	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		AK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES		R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
			(,	()		NB/EB	SB/WB	AILLA	PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
WJ Boaz Rd.	Boat Club Rd.	130' W of Old Decatur	10,865	2.06	2U	228	255	50%	425	875	497	378	
Cromwell Marine Creek Rd.	Boat Club Rd.	Huffines Blvd.	4,610	0.87	2U	368	368	100%	425	742	642	100	
Cromwell Marine Creek Rd.	Huffines Blvd.	Chesterfield Dr.	1,805	0.34	2U	453	376	100%	425	291	283	7	
Cromwell Marine Creek Rd.	Chesterfield Dr.	360' E. of Crystal Lake Dr.	1,130	0.21	4D	405	557	100%	700	599	206	393	
Cromwell Marine Creek Rd.	360' E. of Crystal Lake Dr.	Stonewater Bend Tr.	1,040	0.20	2U	413	572	100%	425	167	194	-27	27
Ten Mile Bridge Rd.	80' W of Future Cromwell Marine Creek Rd.	Hodgkins Rd.	3,165	0.60	2U	121	188	100%	425	510	185	324	
Ten Mile Bridge Rd.	Hodgkins Rd.	Boat Club Rd.	2,605	0.49	2U	121	188	100%	425	419	152	267	
Ten Mile Bridge Rd.	Boat Club Rd.	Bowman Roberts Rd.	2,930	0.55	2U	65	93	100%	425	472	88	384	
Ten Mile Bridge Rd.	Bowman Roberts Rd.	Westgate Dr.	935	0.18	3U	127	127	100%	650	345	45	300	
Ten Mile Bridge Rd.	Westgate Dr.	Huffines Blvd.	2,150	0.41	2U	127	127	100%	425	346	103	243	
Longhorn Rd.	Marine Creek Pkwy.	Old Decatur Rd.	1,270	0.24	2U	81	81	100%	425	204	39	165	
Boat Club Rd.	WJ Boaz Rd.	1,905' S. of Robertson Rd.	4,535	0.86	5U	784	784	50%	700	1,202	673	529	
Boat Club Rd.	1,905' S. of Robertson Rd.	Cromwell Marine Creek Rd.	1,975	0.37	5U	784	784	100%	700	1,047	587	461	
Boat Club Rd.	505' S. of Cromwell Marine Creek Rd.	Ten Mile Bridge Rd.	5,355	1.01	5U	1,207	754	100%	700	2,840	1,989	851	
Boat Club Rd.	Ten Mile Bridge Rd.	150' S. of Shadydell Dr.	5,995	1.14	5U	1,209	717	100%	700	3,179	2,187	992	
Hodgkins Rd.	Ten Mile Bridge Rd.	115' S. of Hatch Rd.	5,420	1.03	2U	72	72	100%	425	873	147	725	
Huffines Blvd.	Cromwell Marine Creek Rd.	330' S. of Cromwell Creek Rd.	330	0.06	5U	136	116	100%	700	175	16	159	
Huffines Blvd.	330' S. of Cromwell Creek Rd.	135' S. of Sunrise Lake	2.670	0.51	2U-CG	125	118	100%	425	430	123	307	
Huffines Blvd.	135' S. of Sunrise Lake	Texas Shiner Dr.	350	0.07	4D	125	118	100%	700	186	16	169	
Huffines Blvd.	Texas Shiner Dr.	Sea Bass Dr.	1,740	0.33	2U-CG	166	104	100%	425	280	89	191	
Huffines Blvd.	Sea Bass Dr.	Ten Mile Bridge Rd.	3,335	0.63	4D	326	161	100%	700	1,769	307	1,461	
Huffines Blvd.	Ten Mile Bridge Rd.	Penwell Dr.	1,825	0.35	4U	436	184	100%	650	899	214	684	
Huffines Blvd.	Penwell Dr.	IH-820 WBFR	3,800	0.72	4D	497	208	100%	700	2,015	507	1,508	
Marine Creek Pkwy.	Cromwell Marine Creek Rd.	Longhorn Rd.	1,295	0.25	2U	533	247	100%	425	208	191	17	
Marine Creek Pkwy.	Longhorn Rd.	420' N of Grayson Ridge Dr.	2,750	0.52	2U	796	369	100%	425	443	607	-164	164
Marine Creek Pkwy.	420' N of Grayson Ridge Dr.	IH-820 WBFR	5,335	1.01	4D	796	369	100%	700	2,829	1,177	1,652	
Marine Creek Pkwy.	IH-820 WBFR	Angle Ave.	2,830	0.54	4D	586	279	100%	700	1,501	464	1,037	
Angle Ave.	Marine Creek Pkwy.	435' SE of NW. 35th St.	6,640	1.26	4D	592	320	100%	700	3,521	1,147	2,375	
Old Decatur Rd.	Longhorn Rd.	Grand National Blvd.	1,725	0.33	2U	736	397	0%	425	0	0	0	
Old Decatur Rd.	Grand National Blvd.	115' SE of Blue Ribbon Rd.	1,235	0.23	3U	736	397	0%	650	0	0	0	
Old Decatur Rd.	115' SE of Blue Ribbon Rd.	Mosaic Dr.	350	0.07	3U	736	397	100%	650	129	75	54	
Old Decatur Rd.	Mosaic Dr.	River Rock Blvd.	1,975	0.37	4U	736	397	100%	650	973	424	549	
Old Decatur Rd.	River Rock Blvd.	IH-820 WBFR	1,565	0.30	2U-CG	736	397	100%	425	252	336	-84	84
Old Decatur Rd.	IH-820 WBFR	IH-820 EBFR	745	0.14	4U	736	397	100%	650	367	160	207	
Old Decatur Rd.	IH-820 EBFR	Angle Ave.	4,250	0.80	2U	376	221	100%	425	684	481	204	
BUS 287	N. City Limits	Auto Ct.	765	0.14	5U	2,040	1,360	100%	700	406	493	-87	87
BUS 287	Auto Ct.	Loop 820 EB	3,490	0.66	4D	2,040	1,360	100%	700	1,851	2,247	-397	397
Azle Ave.	Broadview Dr.	Sherman Ave.	5,640	1.07	4D	414	276	100%	700	2,991	737	2,254	
Delfin St.	IH-820 EBFR	Dead End	345	0.07	4U	25	25	100%	650	170	3	167	
SUBTOTAL			110,770	20.98						36,189	17,832	18,357	758

### Service Area L

SUBTOTAL

						Р	M	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST	PE	AK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES	HOU	R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						NB/EB	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Trinity Blvd.	Handley-Ederville Rd.	545' W. of Loop 820 SBFR	1,770	0.34	5U	695	374	100%	700	939	358	580	
Trinity Blvd.	545' W. of Loop 820 SBFR	Loop 820 NB	1,045	0.20	4D	695	374	100%	700	554	212	343	
N Beach St.	E Belknap St.	1st St.	6,000	1.14	5U	1,402	1,402	50%	700	1,591	1,593	-2	2
N Beach St.	1st St.	IH-30	5,825	1.10	4U	1,059	982	100%	550	2,427	2,252	175	
E 1st St.	N Beach St.	825' W of Oakland Blvd.	8,095	1.53	2U-R	311	200	100%	150	460	783	-323	323
E 1st St./Randol Mill Rd.	825' W of Oakland Blvd.	500' NE of Lake Havasu Trl.	1,680	0.32	4D	297	238	100%	700	891	170	721	
Randol Mill Rd.	500' NE of Lake Havasu Trl.	630' W of Woodhaven Blvd.	4,055	0.77	2U	297	238	100%	425	653	411	242	
Randol Mill Rd.	630' W of Woodhaven Blvd.	Handley-Ederville Rd.	9,320	1.77	4D	315	305	100%	700	4,942	1,094	3,848	
Randol Mill Rd.	Handley-Ederville Rd.	Loop 820 NB	1,310	0.25	4D	635	573	100%	700	695	300	395	
Handley-Ederville Rd.	Midway Rd.	690' S of Jack Newell Blvd.	4,205	0.80	5U	567	567	100%	700	2,230	903	1,326	
Handley-Ederville Rd.	690' S of Jack Newell Blvd.	Randol Mill Rd.	2,340	0.44	4U	567	567	100%	550	975	503	472	
Bridgewood Dr.	Randol Mill Rd.	Bridge St.	5,110	0.97	4U	301	372	100%	550	2,129	651	1,478	
Bridgewood Dr.	Bridge St.	IH-30 EB	1,980	0.38	5U	397	356	100%	700	1,050	282	768	
Bridge St.	Oakland Dr.	Woodhaven Blvd.	6,865	1.30	4U	205	340	100%	550	2,860	709	2,152	
Bridge St.	Woodhaven Blvd.	Oakland Hills Dr.	4,785	0.91	4U	318	327	100%	550	1,994	585	1,409	
Bridge St.	Oakland Hills Dr.	Bridgewood	2,635	0.50	5U	298	334	100%	700	1,397	315	1,082	
Bridge St.	Bridgewood	Loop 820 NB	1,690	0.32	6D	581	505	100%	700	1,344	348	997	
Oakland Blvd.	Randol Mill Rd.	580' N of Bridge St.	2,665	0.50	4U	202	254	100%	550	1,110	230	880	
Oakland Blvd.	580' N of Bridge St.	Bridge St.	580	0.11	5U	202	254	100%	700	308	50	257	
Oakland Blvd.	Bridge St.	IH-30 EB	280	0.05	4U	182	1,824	100%	550	117	106	10	
Woodhaven Blvd.	Randol Mill Rd.	Bridge St.	3,560	0.67	4U	210	219	100%	550	1,483	289	1,194	
Woodhaven Blvd.	Randol Mill Rd.	IH-30 EB	195	0.04	4D	343	226	100%	700	103	21	82	

14.39

75,990

30,253

12,166

18,087

326

10/2/2012

Service Area M

						F	PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
KOADWAI	i Kom		(ft)	(mi)	LANES		R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
			(11)	()	LANCE		SB/WB	AILA	PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Precinct Line Rd.	880' S of SH 10	Trinity Blvd.	1,815	0.34	2U	270	297	100%	425	292	195	97	
Precinct Line Rd.	Trinity Blvd.	Randol Mill Rd.	9,175	1.74	2U	346	346	100%	425	1,477	1,203	274	
Norwood Dr.	65' S. of SH 10	750' N of Trinity Blvd.	1,650	0.31	2U	165	165	100%	425	266	103	163	
Norwood Dr.	750' N of Trinity Blvd.	Trinity Blvd.	750	0.14	2U-CG	165	165	100%	425	121	47	74	
Bell Spur	75' S. of SH 10	Trinity Blvd.	2,495	0.47	4U	288	336	100%	650	1,229	295	934	
Sandy Ln.	Winters St.	John T. White Rd.	4,850	0.92	2U	159	159	100%	425	781	292	489	
Sandy Ln.	John T. White Rd.	IH-30 EB	2,355	0.45	2U	162	162	100%	425	379	144	235	
Cooks Ln.	Future Cooks Ln. Alignment	Lowery Rd.	640	0.12	2U	116	104	100%	425	103	27	76	
Cooks Ln.	Lowery Rd.	545' N. of Meadow View Tr.	940	0.18	3U	116	104	100%	650	347	39	308	
Cooks Ln.	545' N. of Meadow View Tr.	400' N. of John T. White Rd.	1,310	0.25	2U-CG	149	115	100%	425	211	66	145	
Cooks Ln.	400' N. of John T. White Rd.	John T. White Rd.	400	0.08	4D	149	115	100%	700	212	20	192	
Cooks Ln.	John T. White Rd.	IH-30 EB	2,065	0.39	6D	344	344	100%	700	1,643	269	1,374	
Trinity Blvd.	IH-820 NB	Precinct Line Rd.	9.275	1.76	4U	784	784	100%	650	4,567	2.755	1,812	
Trinity Blvd.	Precinct Line Rd.	Norwood Dr.	4,520	0.86	4U	702	702	100%	650	2.226	1,202	1.024	
Trinity Blvd.	Norwood Dr.	Bell Spur	3.920	0.74	4U	501	1,098	100%	650	1.930	1.187	743	
Trinity Blvd.	Bell Spur	1100' W of Greenbelt Rd.	2,950	0.56	4U	608	1,157	100%	650	1,453	986	467	
Trinity Blvd.	1,110' W. of Greenbelt Rd.	Railroad	2,040	0.39	6D	414	1,424	100%	700	1,623	710	913	
Trinity Blvd.	Railroad	Raider Dr.	2,580	0.49	6D	414	1,424	50%	700	1.026	449	577	
Randol Mill Rd.	Loop 820 NB	Stoneview Cir.	435	0.08	4D	203	203	100%	700	231	33	197	
Randol Mill Rd.	Stoneview Cir.	Flyaway Ln.	4,150	0.79	2U	203	203	100%	425	668	319	349	
Randol Mill Rd.	Flyaway Ln.	Goldeneye Ln.	545	0.10	2U-CG	203	203	100%	425	88	42	46	
Randol Mill Rd.	Goldeneye Ln.	Sandy Ln.	335	0.06	2U-R	203	203	100%	150	19	26	-7	7
Randol Mill Rd.	Sandy Ln.	Precinct Line	5,170	0.98	2U-R	178	178	100%	150	294	349	-55	55
Randol Mill Rd.	Precinct Line	Mill Water Dr.	4,400	0.83	2U-R	274	274	100%	150	250	457	-207	207
Randol Mill Rd.	Mill Water Dr.	Racquet Club Dr.	1,085	0.21	2U-CG	274	274	100%	425	175	113	62	
Randol Mill Rd.	Racquet Club Dr.	John T. White Rd.	1,005	0.19	6D	274	274	100%	700	799	104	695	
Randol Mill Rd.	John T. White Rd.	165' SE of Winding Ln.	1,000	0.19	2U	302	266	100%	425	161	108	53	
Randol Mill Rd.	165' SE of Winding Ln.	145' SE of Cottonwood Village Dr.	1,385	0.26	4U	302	266	100%	650	682	149	533	
Randol Mill Rd.	145' SE of Cottonwood Village Dr.	IH-30 EB	565	0.11	2U	302	266	100%	425	91	61	30	
Eastchase Pkwy.	John T. White Rd.	IH-30 EB	2,080	0.39	6D	1,214	1,214	100%	700	1,655	956	698	
John T. White Rd.	Loop 820 NB	Sandy Ln.	5,195	0.98	4D	741	741	100%	700	2,755	1,458	1,297	
John T. White Rd.	Sandy Ln.	Cooks Ln.	3,885	0.74	4D	395	395	100%	700	2,060	581	1,479	
John T. White Rd.	Cooks Ln.	East Chase Pkwy.	4,950	0.94	4D	309	294	100%	700	2,625	565	2,060	
John T. White Rd.	East Chase Pkwy.	Randol Mill Rd.	720	0.14	4D	309	294	100%	700	382	82	300	
Pipeline S	SH 10	Raider Dr.	1,330	0.25	4U	100	100	100%	650	655	50	605	
Anderson Blvd.	John T. White Rd.	Dead End	3,110	0.59	4U	51	51	100%	650	1,531	60	1,471	
Anderson Blvd.	Dead End	Sandy Ln.	2,535	0.48	2U-R	7	8	100%	150	144	7	137	
SUBTOTAL			97,610	18.49						35,149	15,510	19,639	268

Service Area N

						F	PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
	1110		(ft)	(mi)	LANES		R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
			(,	(,	_		SB/WB	7	PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Pipeline Rd. S	Raider Drive	House Anderson Rd.	3,630	0.69	2U	72	116	100%	425	584	129	455	<u> </u>
Pipeline Rd. S	House Anderson Rd.	E. City Limits	1,735	0.33	2U	47	138	100%	425	279	61	219	
Pipeline Rd. S	W. City Limits	Industrial Blvd. (FM 157)	1,665	0.32	2U	105	133	100%	425	268	75	193	
Pipeline Rd. S	Industrial Blvd. (FM 157)	Euless South Main St.	5,340	1.01	2U-R	132	144	100%	150	303	279	24	
Pipeline Rd. S	Euless South Main St.	Summerbrook Dr.	2,405	0.46	2U	122	122	100%	425	387	111	276	
Pipeline Rd. S	Summerbrook Dr.	Boulder Park Dr.	760	0.14	2U-CG	122	122	100%	425	122	35	87	
Pipeline Rd. S	Boulder Park Dr.	American Blvd.	415	0.08	2U	122	122	100%	425	67	19	48	
Trinity Blvd.	Railroad	Raider Dr.	2,580	0.49	6D	414	1,424	50%	700	1,026	449	577	
Trinity Blvd.	Raider Dr.	House Anderson Rd.	4,030	0.76	6D	304	1,181	100%	700	3,206	1,133	2,072	
Trinity Blvd.	House Anderson Rd.	Industrial Blvd. (FM 157)	7,640	1.45	6D	317	1,059	100%	700	6,077	1,991	4,086	
Trinity Blvd.	Industrial Blvd. (FM 157)	Euless South Main St.	5,640	1.07	6D	408	1,589	100%	700	4,486	2,133	2,353	
Trinity Blvd.	Euless South Main St.	American Blvd.	3,855	0.73	6D	481	1,711	100%	700	3,066	1,600	1,466	
Trinity Blvd.	American Blvd.	SH 360 SBFR	2,825	0.54	6D	937	937	100%	700	2,247	1,003	1,244	
Trinity Blvd.	SH 360 SBFR	Centreport Blvd.	1,810	0.34	6D	1,158	1,408	100%	700	1,440	879	560	
Trinity Blvd.	Centreport Blvd.	Amon Carter Blvd.	2,090	0.40	6D	1,070	1,070	100%	700	1,663	847	816	
Trinity Blvd.	Amon Carter Blvd.	595' N. of Trinity Railway	4,400	0.83	6D	521	501	100%	700	3,500	852	2,648	
Trinity Blvd.	595' N. of Trinity Railway Express	E City Limits	4,655	0.88	4D	599	391	100%	700	2,469	873	1,596	
House Anderson Rd.	Pipeline Rd. S	Trinity Blvd.	1,440	0.27	2U-CG	130	227	100%	425	232	97	134	
House Anderson Rd.	Trinity Blvd.	420' N of Trinity Railway Express	2,275	0.43	2U-R	45	22	100%	150	129	29	100	
Industrial Blvd. (FM 157)	Pipeline Rd. S	Trinity Blvd.	2,085	0.39	6D	1,032	1,416	100%	700	1,659	967	692	
Industrial Blvd. (FM 157)	Trinity Blvd.	Trinity Railway Express	3,020	0.57	6D	1,032	1,416	100%	700	2,402	1,400	1,002	
Euless S Main St.	Pipeline Rd. S	Trinity Blvd.	1,000	0.19	2U	232	218	100%	425	161	85	76	
Euless S Main St.	Trinity Blvd.	Trinity Railway Express	2,655	0.50	2U-R	57	92	100%	150	151	75	76	
American Blvd.	Airport Frwy	FAA Blvd.	1,670	0.32	4D	181	148	100%	700	886	104	782	
American Blvd.	FAA Blvd.	Pipeline Rd. S	3,300	0.63	4U	84	327	100%	650	1,625	257	1,368	
American Blvd.	Pipeline Rd. S	Trinity Blvd.	445	0.08	5U	87	256	100%	700	236	29	207	
FAA Blvd.	Airport Fwy.	American Blvd.	2,225	0.42	4U	31	158	100%	650	1,096	80	1,016	
FAA Blvd.	American Blvd.	SH 360 NBFR	2,890	0.55	4U	63	466	100%	650	1,423	290	1,134	
FAA Blvd.	SH 360 NBFR	620' W of Amon Carter Blvd.	1,140	0.22	2U-CG	4	1	100%	425	184	1	182	
FAA Blvd.	620' W of Amon Carter Blvd.	Amon Carter Blvd.	620	0.12	4D	3	6	100%	700	329	1	328	
FAA Blvd.	Amon Carter Blvd.	E. City Limits	5,585	1.06	4D	254	417	100%	700	2,962	709	2,253	
Amon Carter Blvd.	Airport Frwy WBFR	FAA Blvd.	1,740	0.33	6D	2,182	353	100%	700	1,384	835	549	
Amon Carter Blvd.	FAA Blvd.	Trinity Blvd.	4,345	0.82	6D	1,869	402	100%	700	3,456	1,869	1,587	
Sovereign Rd.	Centreport Blvd.	Parking Lot Entrance	1,305	0.25	4D	84	60	100%	700	692	36	656	
Sovereign Rd.	Parking Lot Entrance	Amon Carter Blvd.	820	0.16	4D	84	60	100%	700	435	22	412	
Centreport Blvd.	Sovereign Rd.	295' S of Centre Station Dr.	1,770	0.34	4D	37	68	100%	700	939	35	903	
Centreport Blvd.	295' S of Centre Station Dr.	Trinity Blvd.	720	0.14	4D	64	97	100%	700	382	22	360	
Buckingham Rd.	Trinity Blvd.	Frye Rd. S	865	0.16	4U	115	47	100%	650	426	27	399	
Frye Rd. S	Buckingham Rd.	Trinity Blvd.	2,415	0.46	4U	124	19	100%	650	1,189	65	1,124	
Frye Rd. S	Trinity Blvd.	E City Limits	1,790	0.34	4D	108	220	100%	700	949	111	838	
SUBTOTAL			101,595	19.24						54,517	19,617	34,900	0

Service Area O

Service Area O	<u></u>												10/2/2012
							PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES		DUR	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
							SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Handley Dr.	Nottingham Blvd.	Brentwood Stair Rd.	1,875	0.36	4U	345	299	100%	650	923	229	695	
Handley Dr.	Brentwood Stair Rd.	Meadowbrook Dr.	3,165	0.60	4U	336	336	100%	650	1,559	403	1,156	
Handley Dr.	Meadowbrook Dr.	Routt St.	3,930	0.74	4U	179	179	100%	650	1,935	267	1,669	
Handley Dr.	Routt St.	Trinity Blvd.	1,080	0.20	4U	179	179	100%	650	532	73	459	
Sandy Ln.	IH-30 EB	Ederville Rd.	870	0.16	2U-CG	162	162	100%	425	140	53	87	
Sandy Ln.	Ederville Rd.	Brentwood Stair Rd.	1,030	0.20	4U	162	162	100%	650	507	63	444	
Sandy Ln.	Brentwood Stair Rd.	Buttercup Ln.	8,250	1.56	4U	244	244	100%	650	4,063	762	3,300	
Sandy Ln.	Buttercup Ln.	Lancaster Ave.	1,200	0.23	4U	244	244	100%	650	591	111	480	
Cooks Ln.	IH-30 EB	Ederville Rd.	665	0.13	6D	442	442	100%	700	529	111	418	
Cooks Ln.	Ederville Rd.	Brentwood Stair Rd.	1,605	0.30	6D	442	442	100%	700	1,277	268	1,008	
Cooks Ln.	Brentwood Stair Rd.	Whitney Ln.	3,945	0.75	2U	322	322	100%	425	635	481	154	
Cooks Ln.	Whitney Ln.	S Maegen Cir.	1,380	0.26	2U-CG	183	183	100%	425	222	95	127	
Cooks Ln.	S Maegen Cir.	Lancaster Ave.	3,260	0.62	2U	183	183	100%	425	525	226	299	
Dottie Lynn Pkwy.	IH-30 EB	Meadowbrook Dr.	1,065	0.20	6D	1,714	1,714	100%	700	847	691	156	
Dottie Lynn Pkwy.	Meadowbrook Dr.	Ederville Rd.	1,160	0.22	6D	933	1,556	100%	700	923	547	376	
Dottie Lynn Pkwy.	Ederville Rd.	S City Limits	5,080	0.96	6D	1,423	1,423	100%	700	4,041	2,738	1,303	
Dottie Lynn Pkwy.	City Limits	Trinity Blvd.	2,865	0.54	6D	1,371	1,371	100%	700	2,279	1,488	791	
Meadowbrook Blvd	Loop 820 NB	Handley Dr.	1,785	0.34	5U	852	852	100%	700	947	576	371	
Randol Mill Rd.	IH-30 EB	120' NW of Mill Valley Cir.	430	0.08	2U	301	301	100%	425	69	49	20	
Randol Mill Rd.	120' NW of Mill Valley Cir.	Meadowbrook Dr.	675	0.13	4U	301	301	100%	650	332	77	255	
Ederville Rd.	Nottingham Blvd.	Sandy Ln.	4,390	0.83	4U	127	162	100%	650	2,162	240	1,921	
Ederville Rd.	Sandy Ln.	Cooks Ln.	4,760	0.90	4U	127	162	100%	650	2,344	261	2,083	
Ederville Rd.	Cooks Ln.	Eastchase Pkwy.	4,450	0.84	4U	127	162	100%	650	2,191	244	1,948	
Brentwood Stair Rd.	Loop 820 NB	Handley Dr.	550	0.10	4D	808	917	100%	700	292	180	112	
Brentwood Stair Rd.	Handley Dr.	Sandy Ln.	4,980	0.94	4U	495	495	100%	650	2,452	933	1,519	
Meadowbrook Dr.	Eastchase Pkwy.	Randol Mill Rd.	3,495	0.66	6D	1,016	1,016	100%	700	2,780	1,346	1,435	
Meadowbrook Dr.	Randol Mill Rd.	E City Limits	340	0.06	6D	1,085	1,085	100%	700	270	140	131	
Lancaster Ave. E	Loop 820 NB	Malcom St.	1,015	0.19	6D	895	895	100%	700	807	344	463	
Lancaster Ave. E	Malcom St.	Handley Dr.	1,200	0.23	5U	895	895	100%	700	636	407	230	
Lancaster Ave. E	Handley Dr.	Sandy Ln.	6,150	1.16	5U	895	895	100%	700	3,261	2,085	1,176	
Lancaster Ave. E	Sandy Ln.	435' E. of Dottie Lynn Pkwy.	5,875	1.11	5U	681	681	100%	700	3,116	1,515	1,601	
SUBTOTAL			82,520	15.63						43,187	17,001	26,186	0

Service Area S

						F	PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST	PE	EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES	HOU	R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						NB/EE	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Silver Creek Rd.	570' N of Heron Dr.	Brewer HS Entrance	9,075	1.72	2U	372	372	100%	425	1,461	1,279	182	
Silver Creek Rd.	Brewer HS Entrance	Loop 820 W SBFR	1,650	0.31	4D	343	530	100%	700	875	273	602	
Silver Creek Rd.	Loop 820 W SBFR	Loop 820 W NBFR	420	0.08	4U	343	530	100%	650	207	69	137	
Academy Blvd. N.	130' N. of Sparrow Hawk Ln.	75' S. of Caravelle St.	7,950	1.51	4D	349	187	100%	700	4,216	807	3,409	
Silver Ridge Blvd. E.	White Settlement Rd.	135' S. of Broken Arrow	1,435	0.27	4U	38	55	100%	650	707	25	681	
Chapel Creek Blvd.	White Settlement Rd.	Old Weatherford Rd.	8,780	1.66	4D	374	374	100%	700	4,656	1,244	3,412	
Chapel Creek Blvd.	Old Weatherford Rd.	Chapin Rd.	2,470	0.47	5U	630	308	100%	700	1,310	439	871	
Chapel Creek Blvd.	Chapin Rd.	IH-30	905	0.17	5U	660	660	100%	700	480	226	254	
Longvue	IH-30 WBFR	IH-30	470	0.09	2U-CG	21	30	100%	425	76	5	71	
White Settlement Rd.	W. City Limits	Silver Ridge Blvd. E.	6,025	1.14	2U	159	375	50%	425	485	305	180	
White Settlement Rd.	Silver Ridge Blvd. E.	430' W. of Yuchi Trl	885	0.17	2U	195	428	50%	425	71	52	19	
White Settlement Rd.	430' W. of Yuchi Trl	300' W. of Chapel Creek	3,645	0.69	2U	480	480	100%	425	587	663	-76	76
White Settlement Rd.	300' W. of Chapel Creek	Academy Blvd.	2,965	0.56	2U	458	815	100%	425	477	715	-238	238
White Settlement Rd.	Academy Blvd.	Clifford St.	2,660	0.50	4D	715	927	100%	700	1,411	827	583	
Clifford St.	White Settlement Rd.	650' E of White Settlement Rd.	650	0.12	4D	965	1155	100%	700	345	261	84	
Clifford St.	650' E. of White Settlement	Loop 820 W SBFR	1,640	0.31	5U	965	1155	100%	700	870	658	211	
Clifford St.	Loop 820 W SBFR	Loop 820 W NBFR	390	0.07	4U	965	1155	100%	650	192	157	35	
White Settlement Rd.	Clifford St.	Loop 820 W SBFR	1,685	0.32	5U	1080	1080	100%	700	894	690	204	
White Settlement Rd.	Loop 820 W SBFR	Loop 820 W NBFR	925	0.18	4U	1080	1080	100%	650	455	379	77	
Alemeda	Academy Blvd.	525' N of Westpoint Blvd.	1,760	0.33	2U-R	134	134	100%	150	100	90	10	
Alemeda	Old Weatherford Rd.	IH-30	635	0.12	2U-CG	95	95	100%	425	102	23	79	
Westpoint Blvd.	Basset Locke	American Flyer	1,570	0.30	2U-CG	160	285	100%	425	253	132	120	
Westpoint Blvd.	American Flyer	Academy Blvd. N.	6,705	1.27	4D	98	208	100%	700	3,556	389	3,167	
Westpoint Blvd.	Academy Blvd. N.	Alameda	2,150	0.41	2U-R	74	103	100%	150	122	72	50	
Westpoint Blvd.	Alameda	Loop 820 W SBFR	1,475	0.28	2U-R	74	103	100%	150	84	49	34	
Westpoint Blvd.	Loop 820 W SBFR	Loop 820 W NBFR	730	0.14	4U	74	103	100%	650	359	24	335	
American Flyer Blvd.	120' N. of Fandor	Westpoint Blvd.	1,640	0.31	4U	84	105	100%	650	808	59	749	
Old Weatherford	W. City Limits	645' E. of County Rd 1029	1,785	0.34	2U	132	132	50%	425	144	45	99	
Old Weatherford	645' E. of County Rd 1029	Chapel Creek Blvd	6,180	1.17	2U	52	77	100%	425	995	151	844	
Legacy	Academy Blvd. N.	White Settlement Rd.	2,220	0.42	3U	287	287	100%	650	820	241	579	
Amber Ridge	Chapel Creek Blvd	Wind Star Way	1,385	0.26	2U-CG	38	26	100%	425	223	17	206	
Chapin Rd.	W. City Limits	1800' E of W. City Limits	1,800	0.34	2U-R	46	85	100%	150	102	45	58	
Chapin Rd.	470' W of Wakecrest	Wispy Trl	1,345	0.25	4U	46	85	100%	650	662	33	629	
Chapin Rd.	Wispy Trl	Chapel Creek Blvd	1,250	0.24	3U	55	95	100%	650	462	36	426	
SUBTOTAL			87,255	16.53						28.103	10.443	17.660	314

Service Area T

ROADWAY	FROM	то	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PI HOU	PM EAK IR VOL	% IN SERVICE AREA	VEH-MI CAPACITY PK-HR	VEH-MI SUPPLY PK-HR	VEH-MI DEMAND PK-HR	EXCESS CAPACITY PK-HR	EXISTING DEFICIENCIES PK-HR
Chapel Creek Blvd.	IH-30	Camp Bowie West	2,555	0.48	5U		SB/WB	100%	<b>PER LN</b> 700	TOTAL	TOTAL 163	<b>VEH-MI</b> 1.191	VEH-MI
	IH-30	Camp Bowie West	3,115	0.48	2U-H	169 21	169 30	100%	700	1,355 826	30	796	
Longvue Ave. Longvue Ave.		Camp bowle west Chapin Rd.	2,565	0.59	2U-H	209	209	100%	700	680	203	477	
•	Camp Bowie West	· ·	,	0.49		185	185		700			332	
Longvue Ave. Alemeda St.	Chapin Rd. IH-30 Bridge	S City Limits IH-30 EBFR	1,700 380	0.32	2U-H 2U		82	100% 100%	700 425	451 61	119 12	332 49	
	ü			0.07	5U	82 82	82	100%	700	713	42	671	
Alemeda St.	IH-30 EB	Normandale St.	1,345				-			_			
Alemeda St.	Normandale St.	Solomon Dr.	1,260	0.24	5U	132	132	100%	700	668	63	605	
Alemeda St.	Solomon Dr.	Camp Bowie West	2,085	0.39	4U	132	132	100%	650	1,027	104	923	
Alemeda St.	Camp Bowie West	Chapin Rd.	2,330	0.44	2U	22	22	100%	425	375	19	356	
Normandale St.	Alemeda St.	Loop 820 SBFR	820	0.16	4U	101	101	100%	650	404	31	372	
Normandale St.	Loop 820 SBFR	Loop 820 NBFR	680	0.13	4U	235	235	100%	650	335	61	274	
Normandale St.	Loop 820 NBFR	Dale Ln.	1,620	0.31	4U	235	235	100%	650	798	144	654	
Dale Ln.	IH-30 WBFR	Normandale St.	1,640	0.31	4U	177	177	100%	650	808	110	697	
Las Vegas Tr.	IH-30 WBFR	IH-30 EBFR	280	0.05	4D	453	530	100%	700	148	52	96	
Las Vegas Tr.	IH-30 EBFR	Calmont Ave.	770	0.15	5U	453	530	100%	700	408	143	265	
Las Vegas Tr.	Calmont Ave.	S. Normandale St.	2,280	0.43	5U	348	452	100%	700	1,209	345	864	
Las Vegas Tr.	S. Normandale St.	Camp Bowie West	1,970	0.37	6D	363	355	100%	700	1,567	268	1,299	
Calmont Ave.	Las Vegas Tr.	150' W of Glenrock Dr.	1,840	0.35	4U	83	164	100%	650	906	86	820	
Calmont Ave.	150' W of Glenrock Dr.	Phoenix Dr.	1,115	0.21	5U	224	271	100%	700	591	105	487	
Calmont Ave.	Phoenix Dr.	Cherry Ln.	2,280	0.43	4U	224	271	100%	650	1,123	214	909	
Cherry Ln.	IH-30 EBFR	Calmont Ave.	1,705	0.32	4U	508	577	50%	650	420	175	245	
Cherry Ln.	Calmont Ave.	Doreen Ave.	3,165	0.60	4U	429	531	50%	650	779	288	492	
Cherry Ln.	Doreen Ave.	Camp Bowie West	800	0.15	5U	357	505	50%	700	212	65	147	
Camp Bowie West	Western City Limits	Chapel Creek Blvd.	5,495	1.04	4D	244	244	100%	700	2,914	508	2,406	
Camp Bowie West	Chapel Creek Blvd.	Longvue Ave.	2,610	0.49	4D	377	377	100%	700	1,384	373	1,011	
Camp Bowie West	Longvue Ave.	Alemeda St.	3,640	0.69	4D	502	502	100%	700	1,930	692	1,239	
Camp Bowie West	Alemeda St.	Loop 820 NBFR	1,300	0.25	4D	502	502	100%	700	689	247	442	
Camp Bowie West	Loop 820 NBFR	350' E of Loop 820 NBFR	350	0.07	4D	598	915	100%	700	186	100	85	
Camp Bowie West	350' E of Loop 820 NBFR	Las Vegas Tr.	3,885	0.74	6D	598	915	100%	700	3.090	1,113	1,977	
Camp Bowie West	Las Vegas Tr.	Cherry Ln.	4,485	0.85	6D	669	1,131	100%	700	3,568	1,529	2,039	
Camp Bowie West	Cherry Ln.	Alta Mere Dr.	3,105	0.59	6D	767	1,118	50%	700	1,235	554	681	
Chapin Rd.	Longvue Ave.	Alemeda St.	3,640	0.69	2U-R	33	33	100%	150	207	45	162	
Chapin Rd.	Alemeda St.	Loop 820 NBFR	1,595	0.30	2U-R	33	33	100%	150	91	20	71	
Alta Mere Dr.	Camp Bowie West	Weatherford Traffic Circle	955	0.18	6D	1,650	1,650	50%	700	380	298	81	
Benbrook Hwy.	Garza Ave.	35' S. of Osbun St.	4,930	0.93	5U	820	820	100%	700	2.614	1,531	1,083	
Benbrook Hwy.	North Boundary of T	West Boundary of T	910	0.17	5U	820	820	100%	700	483	283	200	
Southwest Blvd.	Kermit Ave.	Vickery Blvd.	6,160	1.17	6D	1,714	1,714	100%	700	4,900	3.999	901	
Vickery Blvd.	190' W of Rockmoor Ln.	Southwest Blvd.	2,220	0.42	4U	656	656	100%	650	1.093	552	542	
SUBTOTAL			83.580	15.83				.00,0		40.628	14.687	25.942	0

#### Service Area II

Service Area U													10/2/2012
						F	PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST	PE	EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES	HOU	R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						NB/EB	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Old Weatherford	Western City Limits	Eastern City Limits	3,820	0.72	2U-R	13	13	100%	150	217	18	199	
SUBTOTAL			3.820	0.72						217	18	199	0

Service Area W

						PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	ТО	LENGTH	LENGTH	EXIST	PEAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES			PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						NB/EB SB/W		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Riverbend Blvd.	Vickery Blvd.	Riverpark Dr.	3,080	0.58	4U	0 119		650	1,517	69	1,447	
Riverpark Dr.	Southwest Blvd.	Bryant Irvin Rd.	5,965	1.13	4U	364 371		650	2,937	830	2,107	
Bryant Irvin Rd.	UP RR	685' S of Arborlawn Dr.	5,050	0.96	4D	1,459 1,45		700	1,339	1,395	-56	56
Bryant Irvin Rd.	685' S of Arborlawn Dr.	Bellaire Dr.	680	0.13	4D	1,373 1,37		700	361	354	7	
Bryant Irvin Rd.	Bellaire Dr.	US 183 EBFR	2,100	0.40	6D	1,386 1,38		700	1,670	1,102	568	
Bryant Irvin Rd.	US 183 EBFR	IH-20 EBFR	2,365	0.45	6D	1,675 1,63		700	1,881	1,481	400	
Bryant Irvin Rd.	IH-20 EBFR	Overton Ridge Blvd.	2,150	0.41	6D	2,434 2,43		700	1,710	1,982	-272	272
Bryant Irvin Rd.	Overton Ridge Blvd.	Oakmont Blvd.	5,940	1.13	6D	2,269 2,21		700	4,725	5,047	-322	322
Bryant Irvin Rd.	Oakmont Blvd.	Dirks Hulen St.	6,860	1.30	6D	401 709		700 700	5,457	1,442	4,015	
Bellaire Dr.	Current Dead End		5,530	1.05	4D	227 205			1,466	226	1,240	
Bellaire Dr. / Berry St.	Hulen St. Stadium Dr.	Stadium Dr. University Dr.	8,835 1,375	1.67 0.26	4D 6D	939 939 887 970		700 700	4,685 1,094	3,143 484	1,542 610	
Berry St. Hulen St.	Bellaire Dr.	Arborlawn Dr.	4,925	0.26	6D	1,033 1,11		700	3,918	1,999	1,919	
Hulen St.		IH-20 EBFR	4,395		6D			700		3,491		
Hulen St. Hulen St.	Arborlawn Dr. IH-20 EBFR	South Dr.	3,970	0.83 0.75	6D	2,097 2,09 1,922 2,18		700	3,496 3,158	3,491	5 72	
								700		,	-207	007
Hulen St.	South Dr.	Granbury Rd.	4,750	0.90	6D	2,215 2,21			3,778	3,985		207
Hulen St.	Granbury Rd.	Wheaton	715	0.14	5U	1,321 1,32		700	379	358	21	_
Hulen St.	Wheaton	Winifred	680	0.13	4U	1,321 1,32		650	335	340	-6	6
Hulen St.	Winifred	Altamesa Blvd.	3,360	0.64	5U	1,356 1,35		700	1,782	1,726	56	
Arborlawn Dr.	Bellaire Dr.	Hulen St.	4,620	0.88	4D	122 122		700	2,450	214	2,236	
International Plaza	Arborlawn Dr.	Southwest Blvd.	2,255	0.43	4D	204 204		700	1,196	174	1,021	
Overton Plaza	International Plz.	Hulen St.	2,640	0.50	5U	285 285		700	1,400	285	1,115	
Overton Ridge Blvd.	IH-20 EBFR	Private Drive	660	0.13	4D	64 64		700	350	16	334	
Overton Ridge Blvd.	Private Drive	Bryant Irvin Rd.	2,125	0.40	6D	64 64		700	1,690	51	1,639	
Overton Ridge Blvd.	Bryant Irvin Rd.	Hulen St.	6,085	1.15	6D	1,001 1,00	100%	700	4,840	2,308	2,532	
South Dr.	Hulen St.	IH-20 WBFR	6,270	1.19	4U	250 417	7 100%	650	3,088	792	2,295	
Oakmont Blvd.	Bryant Irvin Rd.	Hulen St.	6,300	1.19	4D	753 507	7 100%	700	3,341	1,503	1,838	
Harris Pkwy.	Oakmont Blvd.	John Ryan Dr.	665	0.13	4U	140 415	100%	650	327	70	258	
Harris Pkwy.	John Ryan Dr.	Dutch Branch Rd.	1,050	0.20	5U	140 415	5 100%	700	557	110	446	
Harris Pkwy.	Dutch Branch Rd.	Dirks Rd.	2,565	0.49	4U	146 354	100%	650	1,263	243	1,020	
Oakmont Trl.	Oakmont Blvd.	Andress Dr.	1,870	0.35	4D	257 379	100%	700	992	225	766	
Oakmont Trl.	Andress Dr.	Dutch Branch	2,665	0.50	4U	257 379	100%	650	1,312	321	991	
Dutch Branch	Bryant Irvin Rd.	Oakmont Trl.	5,545	1.05	4U	73 79	100%	650	2,730	160	2,571	
Dutch Branch	South Orient RR	Granbury Rd.	540	0.10	4U	50 50	100%	650	266	10	256	
Lakeside Dr.	Clear Fork Trinity River	Bryant Irvin Rd.	7,310	1.38	2U	310 526	100%	425	1,177	1,157	20	
Dirks Rd.	Bryant Irvin Rd.	Harris Pkwy.	2,735	0.52	6D	681 479	9 50%	700	1,088	300	787	
Dirks Rd.	Harris Pkwy.	South Orient RR	1,845	0.35	2U	923 512		425	149	251	-102	102
Dirks Rd.	South Orient RR	Granbury Rd.	1,245	0.24	2U	843 441		425	100	151	-51	51
Alta Mesa Blvd.	Granbury Rd.	Hulen St.	4,735	0.90	6D	373 309		700	1,883	306	1,577	<u> </u>
Alta Mesa Blvd.	Hulen St.	McCart Ave.	9,290	1.76	6D	785 785		700	3,695	1,381	2,314	
Alta Mesa Blvd.	McCart Ave.	FM 731	5,855	1.11	6D	1,414 1,36		700	2,329	1,542	787	
FM 731	IH-20	Edgecliff	1,985	0.38	7U	1,300 1,30	00 100%	700	1,579	977	602	
McCart	IH-20	Denbury	3,535	0.67	5U	1,563 1,56	3 100%	700	1,875	2,093	-219	219
McCart	Denbury	Altamesa Blvd.	4,415	0.84	6D	1,489 1,48	9 100%	700	3,512	2,490	1,022	
Granbury Rd.	Altamesa Blvd.	Dan Danciger Rd.	3,620	0.69	6D	996 996	100%	700	2,880	1,366	1,513	
Granbury Rd.	Dan Danciger Rd.	Hulen St.	3,210	0.61	4D	996 996	100%	700	1,702	1,211	491	
Granbury Rd.	Hulen St.	Gorman Dr.	5,795	1.10	5U	1,362 1,36	100%	700	3,073	2,990	83	

#### Service Area W

Service Area W													
ROADWAY	FROM	то	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PE HOU	PM EAK R VOL SB/WB	% 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
Granbury Rd.	Gorman Dr.	IH-20 WBFR	2,475	0.47	4D	967	1,446	100%	700	1,313	1,131	181	V LT I-IVII
Granbury Rd.	IH-20 WBFR	Trail Lake	3,270	0.62	4U	1,015	1,015	100%	650	1,610	1,257	353	
Granbury Rd.	Seminary Dr.	University	5,710	1.08	5U	907	907	100%	700	3,028	1,961	1,067	
University	Berry St.	Benbrook Blvd.	1,555	0.29	5U	562	835	100%	700	825	411	413	
University	Benbrook Blvd.	Granbury Rd.	2,875	0.54	4U	534	534	50%	650	708	291	417	
SUBTOTAL			190,040	35.99						104,015	60,293	43,722	1,235

Service Area X

						F	PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST	PE	AK	SERVICE	CAPACITY	SUPPLY DEMAND	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES	HOU	R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						NB/EB	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Seminary Dr.	Crowley Rd. (FM 731)	6th Ave.	1,390	0.26	4D	740	742	50%	700	369	195	173	
Seminary Dr.	6th Ave.	Travis Ave.	2,120	0.40	4U	763	763	50%	650	522	306	216	
Seminary Dr.	Travis Ave.	Hemphill St.	535	0.10	6D	763	763	50%	700	213	77	136	
Seminary Dr.	Hemphill St.	IH-35 NBFR	3,555	0.67	6D	988	990	50%	700	1,414	666	748	
Seminary Dr.	IH-35 NBFR	Evans Ave.	330	0.06	6D	1,215	1,215	50%	700	131	76	55	
Seminary Dr.	Evans Ave.	Carter Park Dr.	3,975	0.75	5U	987	987	50%	700	1,054	743	311	
Seminary Dr.	Carter Park Dr.	Campus Dr.	3,270	0.62	4D	639	631	50%	700	867	393	474	
Seminary Dr.	Campus Dr.	Old Mansfield Rd.	2,545	0.48	4D	559	527	50%	700	675	262	413	
Felix St.	Hemphill St.	Vermont Ave.	2,745	0.52	4U	242	244	100%	650	1,352	253	1,099	
Felix St.	Vermont Ave.	IH-35 SBFR	765	0.14	5U	242	244	100%	700	406	70	335	
Oak Grove Rd.	IH-35 SBFR	IH-20 WBFR	4,065	0.77	4U	375	375	100%	650	2,002	578	1,424	
Oak Grove Rd.	IH-20 WBFR	Oak Grove Ln.	4,475	0.85	4U	596	596	100%	650	2,204	1,010	1,194	
Oak Grove Rd.	Oak Grove Ln.	Oak Grove Rd/ Campus Dr.	1,680	0.32	2U	596	596	100%	425	270	379	-109	109
Altamesa Blvd.	Crowley Rd. (FM 731)	Village Pkwy./Hemphill St.	4,245	0.80	6D	1,262	1,262	100%	700	3,377	2,030	1,347	
Altamesa Blvd.	Village Pkwy./Hemphill St.	IH-35 SBFR	4,415	0.84	6D	1,085	1,085	100%	700	3,512	1,814	1,697	
Altamesa Blvd.	IH-35 SBFR	Will Rogers Blvd.	2,745	0.52	6D	494	628	100%	700	2,184	583	1,600	
Altamesa Blvd.	Will Rogers Blvd.	Oak Grove Rd.	2,650	0.50	6D	484	486	100%	700	2,108	487	1,621	
Altamesa Blvd.	Wichita St.	Lana Cir.	1,745	0.33	4D	50	50	100%	700	925	33	892	
Joe B. Rushing Rd.	Campus Dr.	Wichita St.	4,690	0.89	4D	109	78	100%	700	2.487	166	2,321	
Sycamore School Rd.	Everman Pkwy.	Hemphill St.	3,310	0.63	4U	495	744	100%	650	1,630	777	853	
Sycamore School Rd.	Hemphill St.	IH-35 NBFR	4,410	0.84	4U	1,047	1,047	100%	650	2,172	1,749	423	
Joel East	Oak Grove Rd./Campus Dr.	Wichita St.	5,805	1.10	2U	106	106	100%	425	935	232	703	
Everman Pkwy.	Crowley Rd. (FM 731)	Sycamore School Rd.	920	0.17	6D	617	233	50%	700	366	74	292	
Everman Pkwy.	Sycamore School Rd.	Butterwick St.	3,260	0.62	4U	942	210	50%	650	803	356	447	
Everman Pkwy.	Cameron Hill	Sheridan Rd.	1,220	0.23	2U-CG	33	53	50%	425	98	10	88	
Everman Pkwy.	Sheridan Rd.	IH-35 SBFR	1,235	0.23	4D	33	53	50%	700	327	10	317	
Everman Pkwy.	IH-35 SBFR	Will Rogers Blvd.	2,790	0.53	6D	1,000	1,000	50%	700	1,110	528	581	
Everman Pkwy.	Will Rogers Blvd.	Oak Grove Rd.	2,660	0.50	6D	527	436	50%	700	1,058	243	815	
Everman Pkwy.	Oak Grove Rd.	330' E of Silverbell Ln.	1,125	0.21	4D	401	279	50%	700	298	72	226	
James Ave.	Seminary Dr.	Crowley Rd.	6,170	1.17	4U	718	718	50%	650	1,519	839	680	
James Ave.	Crowley Rd.	IH-20 EBFR	890	0.17	4U	718	718	50%	650	219	121	98	
FM 731	N. City Limits (300' N. of Alta Mesa)	Sycamore School Rd.	5,380	1.02	6D	1,579	1,579	50%	700	2,140	1,609	531	
Hemphill St.	Seminary Dr.	Felix St.	2,475	0.47	5U	447	752	100%	700	1,313	562	750	
Hemphill St.	Felix St.	IH-20 WBFR	4,875	0.92	4U	399	712	100%	650	2,401	1,026	1,375	
Hemphill St.	IH-20 WBFR	425' S of Tasman St.	1,205	0.23	4D	788	788	100%	700	639	360	279	
Hemphill St.	135' N. of Altamesa Blvd.	Sunderland Ln.	1,115	0.21	4D	151	198	100%	700	591	74	518	
Hemphill St.	Sunderland Ln.	130' S. of Kielder Cir.	2,045	0.39	2U-CG	151	198	100%	425	329	135	194	
Hemphill St.	Sycamore School Rd.	360' S of Sycamore School Rd.	360	0.07	4D	57	145	100%	700	191	14	177	
Hemphill St.	360' S of Sycamore School Rd.	Rosedale Springs Ln.	2,185	0.41	2U-CG	57	145	100%	425	352	84	268	
Will Rogers Blvd.	Alta Mesa	Everman Pkwy.	9,395	1.78	4D	471	471	100%	700	4.982	1,677	3,305	
Campus Dr.	Seminary Dr.	IH-20	7,405	1.40	6D	777	777	100%	700	5,890	2,178	3,712	
Campus Dr.	IH-20	Oak Grove Rd.	4,405	0.83	6D	617	617	100%	700	3,504	1.030	2,474	
Campus Dr.	Oak Grove Rd.	Altamesa Blvd.	1,265	0.03	6D	662	774	100%	700	1,006	344	662	
Oak Grove Rd.	Altamesa Blvd.	Joel East	2,775	0.24	2U	266	376	100%	425	447	337	109	
Oak Grove Rd.	Joel East	Everman Pkwy.	6,600	1.25	2U	299	299	100%	425	1,063	748	315	
Wichita St.	340' N of Altamesa Blvd.	130' N of Buie Dr.	1,975	0.37	2U	510	510	100%	425	318	382	-64	64
Forest Hill Dr.	Lon Stephenson Rd.	S. City Limits	3,790	0.37	2U	469	469	100%	425	610	674	-64	
Anglin Dr.	Lon Stephenson Rd.	Enon Ave.	5,295	1.00	2U 2U	104	104	100%	425 425	852	208	-64 644	64
Angiin Di.	Lon Stephenson Ru.	LIIOII AVE.	5,295	1.00	20	104	104	100%	420	002	200	044	

#### Service Area X

Service Area X													10/2/2012
ROADWAY	FROM	то	LENGTH (ft)	LENGTH (mi)	EXIST LANES	PE HOUI	AK R VOL SB/WB	% 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
Dick Price Rd.	N City Limits	S City Limits	2,555	0.48	2U	185	185	100%	425	411	179	233	
Enon Ave. SUBTOTAL	W City Limits	Anglin Dr.	2,635 <b>153,470</b>	0.50 <b>29.07</b>	2U	55	55	100%	425	424 <b>64,068</b>	54 <b>26,807</b>	370 <b>37,261</b>	236

#### **Service Area Y**

Service Area i						P	M	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST	PE	AK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
			(ft)	(mi)	LANES	HOU	R VOL	AREA	PK-HR	PK-HR	PK-HR	PK-HR	PK-HR
						NB/EB	SB/WB		PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Dirks Rd.	Bryant Irvin Rd.	Harris Pkwy.	2,735	0.52	6D	681	479	50%	700	1,088	300	787	
Dirks Rd.	Harris Pkwy.	South Orient RR	1,845	0.35	2U	923	512	50%	425	149	251	-102	102
Dirks Rd.	South Orient RR	Granbury Rd.	1,245	0.24	2U	843	441	50%	425	100	151	-51	51
Altamesa Blvd.	Granbury Rd.	Hulen St.	4,735	0.90	6D	373	309	50%	700	1,883	306	1,577	
Altamesa Blvd.	Hulen St.	McCart Ave.	9,290	1.76	6D	1,065	1,065	50%	700	3,695	1,873	1,822	
Altamesa Blvd.	McCart Ave.	FM 731	5,855	1.11	6D	1,414	1,367	50%	700	2,329	1,542	787	
FM 731	N. City Limits (300' N. of Alta Mesa)	Sycamore School Rd.	5,380	1.02	6D	1,579	1,579	50%	700	2,140	1,609	531	
FM 731	Sycamore School Rd.	Risinger Rd.	7,635	1.45	5U	1,123	1,123	50%	700	2,024	1,623	401	
FM 731	Risinger Rd.	McPherson Blvd.	5,260	1.00	5U	905	905	50%	700	1,395	902	493	
Columbus Trail	W. City Limits	Future Brewer Blvd.	865	0.16	2U	162	251	100%	425	139	68	72	
Sycamore School Rd.	Future Brewer Blvd.	Future SH 121	1,025	0.19	2U	162	251	100%	425	165	80	85	
Sycamore School Rd.	Future SH 121	Summer Creek Dr.	1,755	0.33	4D	162	251	100%	700	931	137	793	
Sycamore School Rd.	Summer Creek Dr.	Hulen St.	5,645	1.07	4D	196	126	100%	700	2,994	344	2,649	
Sycamore School Rd.	Hulen St.	Cleburne Rd. W.	3,595	0.68	4D	712	853	100%	700	1,906	1,065	841	
Sycamore School Rd.	Cleburne Rd. W.	McCart Ave.	3,165	0.60	6D	804	804	100%	700	2,518	964	1,554	
Sycamore School Rd.	McCart Ave.	FM 731	6,535	1.24	6D	1,574	1,574	100%	700	5,198	3,896	1,302	
Risinger Rd.	Brewer Blvd.	Summer Creek Dr.	3,155	0.60	4D	51	37	100%	700	1,673	53	1,621	
Risinger Rd.	Summer Creek Dr.	Hulen St.	5,570	1.05	4D	336	128	100%	700	2,954	489	2,464	
Risinger Rd.	Hulen St.	Cove Meadow	3,280	0.62	4D	461	461	100%	700	1,739	573	1,167	
Risinger Rd.	Cove Meadow	McCart Ave.	2,700	0.51	6D	306	434	100%	700	2,148	378	1,769	
Risinger Rd.	McCart Ave.	760' E of McCart Ave.	760	0.14	6D	145	118	100%	700	605	38	567	
Risinger Rd.	760' E of McCart Ave.	Poynter St.	1,495	0.28	2U-CG	145	118	100%	425	241	74	166	
Risinger Rd.	Existing Risinger Rd. Dead End	FM 731	2,375	0.45	2U-R	2	2	100%	150	135	2	133	
McPherson Blvd.	Summer Creek Dr.	Willow Branch Way	2,250	0.43	2U-CG	51	27	100%	425	362	33 22	329	
McPherson Blvd.	Willow Branch Way	Hulen St.	1,470	0.28	6D	51	27	100%	700	1,169		1,148	
McPherson Blvd. Stewart Feltz Rd.	Hulen St.	Cleburne Rd.	2,140	0.41	4D	55 10	32 10	100%	700 150	1,135 120	35 8	1,100 112	
	Future Brewer / James W. Schell	Stewart Feltz Rd. SB Curve Cleburne Rd.	2,105	0.40	2U-R		10	100%		472	_		
Stewart Feltz Rd.	Existing Stewart Feltz Rd.	Summer Creek Dr.	2,930	0.55 0.30	2U 2U-CG	6 10	10	100% 100%	425 425	258	4 6	468 252	
Sunflower Ridge Cleburne Crowley Rd.	1605' W of Summer Creek Dr. Stewart Feltz Rd. EB Curve	Cleburne Rd.	1,605 1,720	0.30	2U-CG 2U-R	6	10	100%	425 150	258 98	2	252 95	
Cleburne Rd.	Cleburne Rd.	SE City Limits	930	0.33	2U-R	39	47	100%	425	150	15	135	
Cleburne Rd.	Cleburne Crowley Rd.	Future Cleburne Rd. Alignment	365	0.18	2U	41	44	100%	425	59	6	53	
Cleburne Rd.	755' S of future Cleburne / Summer Ck Int	Future Cleburne Rd. Alignment	1,355	0.07	2U	41	44	100%	425	218	22	196	
Brewer Blvd.	155' N of Bindweed St.	Risinger Rd.	2,325	0.26	4D	8	11	100%	700	1,233	8	1,225	
Brewer Blvd.	Risinger Rd.	125' S of Risinger Rd.	125	0.02	4D	0	0	100%	700	66	0	66	
Old Granbury Rd.	Columbus Trl.	S/W City Limits	8.300	1.57	2U	176	176	100%	425	1,336	553	783	
Granbury Rd.	Altamesa Blvd.	420' S of Altamesa Blvd.	420	0.08	6D	941	941	100%	700	334	150	184	
Granbury Rd.	420' S of Altamesa Blvd.	135' N of Sierra Ridge Dr.	1,215	0.00	4D	941	941	100%	700	644	433	211	
Granbury Rd.	135' N of Sierra Ridge Dr.	Summer Meadows Dr.	1,215	0.23	4D	941	941	100%	700	644	433	211	
Summer Creek Dr.	Summer Meadows Dr.	Sycamore School Rd.	1,740	0.23	4D	576	1,170	100%	700	923	575	347	
Summer Creek Dr.	Sycamore School Rd.	Columbus Trl.	1,090	0.33	4D	421	856	100%	700	578	264	314	
Summer Creek Dr.	Columbus Trl.	Summer Park Dr.	2.920	0.55	4D	144	338	100%	700	1.548	267	1.282	
Summer Creek Dr.	Summer Park Dr.	Risinger Rd.	2,150	0.41	2U-CG	144	338	100%	425	346	196	150	
Summer Creek Dr.	McPherson Blvd.	Sunflower Ridge Rd.	2,150	0.41	2U-CG	58	9	100%	425	378	30	348	
Hulen St.	Altamesa Blvd.	Cinnamon Hill Dr.	700	0.13	5U	664	937	100%	700	371	212	159	
Hulen St.	Cinnamon Hill Dr.	Sycamore School Rd.	5,095	0.13	4D	963	963	100%	700	2.702	1,858	844	
Hulen St.	Sycamore School Rd.	Risinger Rd.	6.365	1.21	4D	701	701	100%	700	3.375	1,636	1.685	
Hulen St.	Risinger Rd.	McPherson Blvd.	5.390	1.02	4D	100	135	100%	700	2.858	240	2.618	
i idioii ot.	Trionigor Itu.	WOT TICTOOTT DIVU.	5,550	1.02	טד	100	100	10070	700	2,000	270	2,010	

10/2/2012

#### Service Area Y

Service Area Y	7												10/2/2012
ROADWAY	FROM	то	LENGTH (ft)	LENGTH (mi)	LANES	PE HOU	PM EAK R VOL SB/WB	% 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
Hulen St.	McPherson Blvd.	Carriage Crossing Dr.	995	0.19	2U-CG	74	110	100%	425	160	35	126	
Hulen St.	325' N of Rancho Verde Pkwy.	S City Limits	2,630	0.50	2U	10	10	100%	425	423	10	413	
McCart Ave.	Altamesa Blvd.	Sycamore School Rd.	5,620	1.06	6D	1,706	1,706	100%	700	4,470	3,632	838	
McCart Ave.	Sycamore School Rd.	Risinger Rd.	7,310	1.38	6D	349	530	100%	700	5,815	1,217	4,598	
McCart Ave.	Risinger Rd.	585' S. of Risinger Rd.	585	0.11	6D	44	70	100%	700	465	13	453	
McCart Ave.	585' S of Risinger Rd.	135' S. of Cayman Dr.	1,615	0.31	2U-CG	44	70	100%	425	260	35	225	
McCart Ave.	145' N of Twinleaf Dr.	300' S of Twinleaf Dr.	445	0.08	4U	27	30	100%	650	219	5	214	
McCart Ave.	300' S of Twinleaf Dr.	S City Limits	2,300	0.44	2U-CG	27	30	100%	425	370	25	345	
SUBTOTAL			161,090	30.51		İ				69,884	28,172	41,712	51

Service Area Z

Service Area Z						F	PM	% IN	VEH-MI	VEH-MI	VEH-MI	EXCESS	EXISTING
ROADWAY	FROM	то	LENGTH	LENGTH	EXIST		EAK	SERVICE	CAPACITY	SUPPLY	DEMAND	CAPACITY	DEFICIENCIES
KOADWAT	FROW	10	(ft)	(mi)	LANES		R VOL	AREA	PK-HR	PK-HR		PK-HR	PK-HR
			(11)	(1111)	LANLO		SB/WB	ANLA	PER LN	TOTAL	TOTAL	VEH-MI	VEH-MI
Everman Pkwv.	Crowley Rd. (FM 731)	Sycamore School Rd.	920	0.17	6D	617	233	50%	700	366	74	292	A FI I-IAII
Everman Pkwy.	Sycamore School Rd.	Butterwick St.	3,260	0.62	4U	942	210	50%	650	803	356	447	
Everman Pkwy.	Cameron Hill	320' E. of Sheridan Rd.	1525	0.29	2U-CG	33	53	50%	425	123	12	110	
Everman Pkwy.	320' E. of Sheridan Rd.	IH-35W SBFR	945	0.18	4D	33	53	50%	700	251	8	243	
Everman Pkwy.	IH-35 SBFR	Will Rogers Blvd.	2,790	0.53	6D	1,000	1,000	50%	700	1,110	528	581	
Everman Pkwy.	Will Rogers Blvd.	Oak Grove Rd.	2,660	0.50	6D	527	436	50%	700	1.058	243	815	
Everman Pkwv.	Oak Grove Rd.	330' E of Silverbell Ln.	1,125	0.21	4D	401	279	50%	700	298	72	226	
Everman Pkwy.	330' E of Silverbell Ln.	565' E of Christopher Dr.	2,680	0.51	4D	401	279	50%	700	711	173	538	
Shelby Rd.	Race St.	Georgetown Dr.	3,820	0.72	2U-BD	239	239	50%	425	307	173	135	
Shelby Rd.	Georgetown Dr.	665' E of Georgetown Dr.	665	0.12	3U	239	239	50%	650	123	30	93	
Shelby Rd.	665' E of Georgetown Dr.	Rendon/Forest Hill	795	0.15	2U-BD	239	239	50%	425	64	36	28	
Risinger Rd.	FM 731	Hemphill St.	4,030	0.15	2U-BD	205	290	100%	425	649	378	271	
Risinger Rd.	Hemphill St.	IH-35W NBFR	4,800	0.76	2U-BD	203	287	100%	425	773	446	326	
S	IH-35 SBFR	Old Burleson Rd.		0.91	2U-BD	69	124	100%	150	67	446	24	
Risinger Rd.			1,185							-	-		
Oak Grove Shelby Rd.	Oak Grove Rd.	Rendon	5,315	1.01	2U-R	12	11	100%	150	302	23	279	
McPherson Blvd.	UP RR	Bilsky Bay Dr.	2,100	0.40	4D	228	258	100%	700	1,114	193	920	
McPherson Blvd.	Bilsky Bay Dr.	IH-35W SBFR	485	0.09	3U	228	258	100%	650	179	45	134	
McPherson Blvd.	IH-35W SBFR	IH-35W NBFR	665	0.13	2U-CG	333	385	100%	425 425	107 531	90	17 338	
McPherson Blvd.	Oak Grove Rd.	Future Wichita Rd.	3,300	0.63	2U-BD	155	155	100%			193		
McPherson Blvd.	Future Wichita Rd.	Forest Hill-Everman	4,295	0.81	2U-BD	155	155	100%	425	691	251	440	
Wichita St.	Race St.	790' W of Race St.	790	0.15	2U-CG	50	50	100%	425	127	15	112	
FM 1187	Main St.	Hemphill St.	1,860	0.35	4D	908	908	100%	700	986	639	347	
FM 1187 / Rendon-Crowley Rd.	Hemphill St.	395' E of IH-35W NBFR	3,905	0.74	4D	1,390	1,390	100%	700	2,071	2,056	15	
FM 1187 / Rendon-Crowley Rd.	395' E of IH-35 NBFR	Future Stone / Oak Grove Rd.	1,120	0.21	2U-H	1,390	1,390	100%	700	297	590	-293	293
FM 1187 / Rendon-Crowley Rd.	Future Stone / Oak Grove Rd.	315' W of Hunters Field Blvd.	4,200	0.80	2U-H	864	864	100%	700	1,114	1,375	-261	261
FM 1187 / Rendon-Crowley Rd.	315' W of Hunters Field Blvd.	Oak Grove Rd.	2,020	0.38	3U-H	864	864	100%	700	803	661	142	
Alsbury Blvd.	70' E of IH-35W NBFR	Stone Rd.	1,055	0.20	2U-BD	179	202	100%	425	170	76	94	
FM 731	Sycamore School Rd.	Risinger Rd.	7,635	1.45	5U	985	985	50%	700	2,024	1,424	600	
FM 731	Risinger Rd.	McPherson Blvd.	5,260	1.00	5U	905	905	50%	700	1,395	902	493	
Hemphill St.	Risinger Rd.	1670' S of Risinger Rd.	1,670	0.32	4D	8	6	100%	700	886	4	881	
Hemphill St.	580' N. of Brasenose St.	Nuffield Ln.	1,190	0.23	2U-CG	187	138	100%	425	192	73	118	
Hemphill St.	Nuffield Ln.	FM 1187 EB	2,445	0.46	4D	187	138	100%	700	1,297	150	1,146	
Hemphill St.	FM 1187 EB	Hemphill St. (VERIFY NAME)	1,330	0.25	2U-CG	37	63	100%	425	214	25	189	
Oak Grove Rd.	Everman Pkwy.	Forum Way	2,070	0.39	4D	89	241	100%	700	1,098	129	968	
Oak Grove Rd.	Forum Way	Oak Grove Shelby	1,925	0.36	2U-BD	54	267	100%	425	310	117	193	
Oak Grove Rd.	Oak Grove-Shelby	Future Oak Grove Rd. (Realigned)	990	0.19	2U-BD	55	267	100%	425	159	60	99	
Oak Grove Rd.	Future Oak Grove Rd. (Realigned)	McPherson Blvd.	685	0.13	2U-BD	57	242	100%	425	110	39	71	
Oak Grove Rd.	McPherson Blvd.	Nelson Pl.	5,095	0.96	2U-BD	202	202	100%	425	820	390	430	
Oak Grove Rd.	Nelson Pl.	Doe Meadow Dr.	1,140	0.22	2U-BD	202	202						
Stone Rd.	Alsbury Blvd.	Abner Lee Dr.	3,270	0.62	2U-BD	158	154	100%	425	526	193	333	-
McAlister Rd.	50' W of UP RR	IH-35 SBFR	1,430	0.27	2U-BD	195	308	100%	425	230	136	94	
McAlister Rd.	IH-35 SBFR	IH-35 NBFR	485	0.09	2U-CG	195	308	100%	425	78	46	32	-
Wildcat Way / Oak Grove S	Abner Lee Dr.	Burleson Retta Rd.	2,965	0.56	2U-BD	260	260	100%	425	477	292	185	
Oak Grove Rd.	Nicole Way	Nelson Pl.	355	0.07	4D	50	50	100%	700	188	7	182	
Rendon/Forest Hill	640' N of Chambers Creek Dr.	Shelby Rd.	2,395	0.45	2U-BD	192	375	50%	425	193	129	64	
Rendon/Forest Hill	Shelby Rd.	95' S. of Shelby Rd.	95	0.02	2U-BD	157	463	100%	425	15	11	4	
Rendon/Forest Hill	95' S. of Shelby Rd.	80' S of future Risinger Rd.	2,545	0.48	2U-BD	157	463	50%	425	205	149	55	
SUBTOTAL			107,285	20.32						25,612	13.059	12,553	554

# D

G

2013 Transportation Impact Fee Study
Plan for Awarding the Transportation
Impact Fee Credit Summary
(as prepared by J. Stowe & Co.)

#### SUMMARY OF TRANSPORTATION SERVICE AREA A IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs 63,694,778 Table 7, line 11 of Report Financing Costs 17,287,913 See Detail Below Existing Fund Balance (742,927) Appendix E - Service Area A, Page 1 Interest Earnings (4,042,874) Appendix E - Service Area A, Page 4 Pre Credit Recoverable Cost for Impact Fee \$ 76,196,891 Sum of Above Credit for Ad Valorem Revenues (153,654) Appendix E - Service Area A, Page 6 Maximum Recoverable Cost for Impact Fee 76,043,237 \$

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service \$49,135,302
Existing Annual Debt Service Principal Component (New and Existing Debt) (31,847,389)
Financing Costs \$17,287,913

#### Existing Fund Balance:

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area A, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area A, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transporation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area A, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA AA IMPACT FEE DETERMINATION

.

Recoverable Impact Fee TIP Costs	\$ 4,957,944	Table 7, line 11 of Report
Financing Costs	1,345,676	See Detail Below
Existing Fund Balance	(84,458)	Appendix E - Service Area AA, Page 1
Interest Earnings	(316,002)	Appendix E - Service Area AA, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 5,903,159	Sum of Above
Credit for Ad Valorem Revenues	(2,948)	Appendix E - Service Area AA, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 5,900,210	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 3,824,648
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	(2,478,972)
Financing Costs	\$ 1.345.676

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area AA, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area AA, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area AA, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA B IMPACT FEE DETERMINATION

.

Recoverable Impact Fee TIP Costs	\$ 72,151,873	Table 7, line 11 of Report
Financing Costs	19,583,322	See Detail Below
Existing Fund Balance	(949,073)	Appendix E - Service Area B, Page 1
Interest Earnings		Appendix E - Service Area B, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 86,202,610	Sum of Above
Credit for Ad Valorem Revenues	(247,347)	Appendix E - Service Area B, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 85,955,262	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 55,659,258
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	(36,075,937)
Financing Costs	\$ 19.583.322

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area B, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area B, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area B, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA C IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs	\$ 88,042,341	Table 7, line 11 of Report
Financing Costs	23,896,282	See Detail Below
Existing Fund Balance	(2,630,961)	Appendix E - Service Area C, Page 1
Interest Earnings		Appendix E - Service Area C, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 103,652,372	Sum of Above
Credit for Ad Valorem Revenues	(571,240)	Appendix E - Service Area C, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 103,081,132	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 67,917,452
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	(44,021,171)
Financing Costs	\$ 23.896.282

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area C, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area C, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area C, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA D IMPACT FEE DETERMINATION

.

Recoverable Impact Fee TIP Costs	\$ 63,566,158	Table 7, line 11 of Report
Financing Costs	16,279,577	See Detail Below
Existing Fund Balance		Appendix E - Service Area D, Page 1
Interest Earnings		Appendix E - Service Area D, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 73,681,015	Sum of Above
Credit for Ad Valorem Revenues	(76,311)	Appendix E - Service Area D, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 73,604,704	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 38,075,479
Existing Annual Debt Service	14,208,383
Principal Component (New and Existing Debt)	 (36,004,285)
Financing Costs	\$ 16.279.577

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area D, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area D, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area D, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA E IMPACT FEE DETERMINATION

.

Recoverable Impact Fee TIP Costs	\$ 14,491,704	Table 7, line 11 of Report
Financing Costs	3,820,753	See Detail Below
Existing Fund Balance	(760,031)	Appendix E - Service Area E, Page 1
Interest Earnings	(920,533)	Appendix E - Service Area E, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 16,631,892	Sum of Above
Credit for Ad Valorem Revenues	(7,039)	Appendix E - Service Area E, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 16,624,854	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 10,664,624
Existing Annual Debt Service	735,482
Principal Component (New and Existing Debt)	 (7,579,353)
Financing Costs	\$ 3.820.753

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area E, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area E, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area E, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA F IMPACT FEE DETERMINATION

.

Recoverable Impact Fee TIP Costs	\$ 28,027,823	Table 7, line 11 of Report
Financing Costs	7,550,302	See Detail Below
Existing Fund Balance	(1,711,683)	Appendix E - Service Area F, Page 1
Interest Earnings	(1,840,917)	Appendix E - Service Area F, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 32,025,525	Sum of Above
Credit for Ad Valorem Revenues	(37,280)	Appendix E - Service Area F, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 31,988,245	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 21,167,085
Existing Annual Debt Service	588,636
Principal Component (New and Existing Debt)	 (14,205,419)
Financing Costs	\$ 7,550,302

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area F, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area F, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area F, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA G IMPACT FEE DETERMINATION

.

Recoverable Impact Fee TIP Costs	\$ 55,638,290	Table 7, line 11 of Report
Financing Costs	15,101,237	See Detail Below
Existing Fund Balance	(903,680)	Appendix E - Service Area G, Page 1
Interest Earnings	(3,542,641)	Appendix E - Service Area G, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 66,293,207	Sum of Above
Credit for Ad Valorem Revenues	(153,422)	Appendix E - Service Area G, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 66,139,785	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 42,920,382
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	(27,819,145)
Financing Costs	\$ 15.101.237

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area G, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area G, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area G, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA L IMPACT FEE DETERMINATION

.

Recoverable Impact Fee TIP Costs	\$ 1,434,627	Table 7, line 11 of Report
Financing Costs	396,445	See Detail Below
Existing Fund Balance	(57,589)	Appendix E - Service Area L, Page 1
Interest Earnings	(88,194)	Appendix E - Service Area L, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 1,685,289	Sum of Above
Credit for Ad Valorem Revenues	(92)	Appendix E - Service Area L, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 1,685,197	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 678,238
Existing Annual Debt Service	713,229
Principal Component (New and Existing Debt)	 (995,022)
Financing Costs	\$ 396,445

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area L, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area L, Page 4.

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area L, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA M IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs	\$ 37,488,432	Table 7, line 11 of Report
Financing Costs	10,191,910	See Detail Below
Existing Fund Balance	(771,899)	Appendix E - Service Area M, Page 1
Interest Earnings	(2,388,488)	Appendix E - Service Area M, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 44,519,955	Sum of Above
Credit for Ad Valorem Revenues	(63,145)	Appendix E - Service Area M, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 44,456,810	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 28,283,294
Existing Annual Debt Service	1,065,034
Principal Component (New and Existing Debt)	 (19,156,418)
Financing Costs	\$ 10,191,910

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area M, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area M, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area M, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA N IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs	\$ 23,860,401	Table 7, line 11 of Report
Financing Costs	6,476,144	See Detail Below
Existing Fund Balance	(700,448)	Appendix E - Service Area N, Page 1
Interest Earnings	(1,534,070)	Appendix E - Service Area N, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 28,102,027	Sum of Above
Credit for Ad Valorem Revenues	(2,863)	Appendix E - Service Area N, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 28,099,163	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 18,406,344
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	(11,930,201)
Financing Costs	\$ 6.476.144

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area N, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area N, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area N, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA O IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs	\$ 7,739,547	Table 7, line 11 of Report
Financing Costs	2,100,653	See Detail Below
Existing Fund Balance	(256,310)	Appendix E - Service Area O, Page 1
Interest Earnings	(498,849)	Appendix E - Service Area O, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 9,085,040	Sum of Above
Credit for Ad Valorem Revenues	(5,057)	Appendix E - Service Area O, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 9,079,983	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 5,970,426
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	(3,869,774)
Financing Costs	\$ 2.100.653

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area O, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area O, Page 4.

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area O, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA S IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs	\$ 31,846,197	Table 7, line 11 of Report
Financing Costs	8,399,907	See Detail Below
Existing Fund Balance	(612,688)	Appendix E - Service Area S, Page 1
Interest Earnings	(1,974,484)	Appendix E - Service Area S, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 37,658,932	Sum of Above
Credit for Ad Valorem Revenues	(51,735)	Appendix E - Service Area S, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 37,607,197	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 23,343,978
Existing Annual Debt Service	1,771,564
Principal Component (New and Existing Debt)	(16,715,635)
Financing Costs	\$ 8,399,907

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area S, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area S, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area S, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA T IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs	\$ 13,365,241	Table 7, line 11 of Report
Financing Costs	3,627,568	See Detail Below
Existing Fund Balance	(165,723)	Appendix E - Service Area T, Page 1
Interest Earnings	(849,122)	Appendix E - Service Area T, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 15,977,964	Sum of Above
Credit for Ad Valorem Revenues	(5,228)	Appendix E - Service Area T, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 15,972,736	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 10,310,188
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	 (6,682,621)
Financing Costs	\$ 3,627,568

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area T, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area T, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area T, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA U IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs	\$ 46,202,395	Table 7, line 11 of Report
Financing Costs	12,540,165	See Detail Below
Existing Fund Balance	-	Appendix E - Service Area U, Page 1
Interest Earnings	(2,908,781)	Appendix E - Service Area U, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 55,833,778	Sum of Above
Credit for Ad Valorem Revenues	(90,060)	Appendix E - Service Area U, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 55,743,718	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 35,641,362
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	(23,101,198)
Financing Costs	\$ 12.540.165

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area U, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area U, Page 4.

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area U, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA W IMPACT FEE DETERMINATION

.

Recoverable Impact Fee TIP Costs	\$ 6,893,110	Table 7, line 11 of Report
Financing Costs	1,870,915	See Detail Below
Existing Fund Balance	(346,680)	Appendix E - Service Area W, Page 1
Interest Earnings	(449,593)	Appendix E - Service Area W, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 7,967,752	Sum of Above
Credit for Ad Valorem Revenues	(3,893)	Appendix E - Service Area W, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 7,963,859	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 5,317,470
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	(3,446,555)
Financing Costs	\$ 1.870.915

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area W, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area W, Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area W, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA X IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs	\$ 25,416,523	Table 7, line 11 of Report
Financing Costs	6,898,503	See Detail Below
Existing Fund Balance	(697,005)	Appendix E - Service Area X Page 1
Interest Earnings	(1,631,624)	Appendix E - Service Area X, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 29,986,398	Sum of Above
Credit for Ad Valorem Revenues	(25,702)	Appendix E - Service Area X Page 6
Maximum Recoverable Cost for Impact Fee	\$ 29,960,696	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 19,606,765
Existing Annual Debt Service	-
Principal Component (New and Existing Debt)	 (12,708,262)
Financing Costs	\$ 6,898,503

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area X, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area X Page 4

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area X, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA Y IMPACT FEE DETERMINATION

.

Recoverable Impact Fee TIP Costs	\$ 84,775,998	Table 7, line 11 of Report
Financing Costs	22,262,603	See Detail Below
Existing Fund Balance	(65,665)	Appendix E - Service Area Y, Page 1
Interest Earnings		Appendix E - Service Area Y, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 101,734,285	Sum of Above
Credit for Ad Valorem Revenues	(265,976)	Appendix E - Service Area Y, Page 6
Maximum Recoverable Cost for Impact Fee	\$ 101,468,309	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 59,985,693
Existing Annual Debt Service	7,015,707
Principal Component (New and Existing Debt)	 (44,738,797)
Financing Costs	\$ 22,262,603

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area Y, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area Y, Page 4.

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area Y, Page 6

#### Maximum Recoverable Cost for Impact Fee:

#### SUMMARY OF TRANSPORTATION SERVICE AREA Z IMPACT FEE DETERMINATION

Recoverable Impact Fee TIP Costs	\$ 41,027,728	Table 7, line 11 of Report
Financing Costs	11,268,035	See Detail Below
Existing Fund Balance	(1,423,207)	Appendix E - Service Area Z Page 1
Interest Earnings	(2,694,092)	Appendix E - Service Area Z, Page 4
Pre Credit Recoverable Cost for Impact Fee	\$ 48,178,464	Sum of Above
Credit for Ad Valorem Revenues	(62,342)	Appendix E - Service Area Z, Page6
Maximum Recoverable Cost for Impact Fee	\$ 48,116,122	

#### Recoverable Impact Fee TIP Costs:

Represents the portion of transportation improvement costs that are eligible for funding through impact fees See Table 7, Line 11 of Report

#### Financing Costs:

Represents the interest costs associated with debt financing the new impact fee project costs Interest costs are derived from existing debt issues and forecasted debt issues

New Annual Debt Service	\$ 31,649,530
Existing Annual Debt Service	757,869
Principal Component (New and Existing Debt)	 (21,139,364)
Financing Costs	\$ 11,268,035

#### **Existing Fund Balance:**

Represents impact fee revenue collected but not yet expended. Some projects that are included in the 2013 Transportation Impact Fee Study were also included in the 2006 Impact Fee Study. To avoid charging twice for the same project, the impact fee revenues collected but yet to be expended (i.e., fund balance) are credited against the recoverable costs. See Appendix E - Service Area Z, Page 1

#### Interest Earnings:

Represents the interest earned on cash flows. Assumes a 0.885% annual interest rate based on the City's average annual return on consolidated cash funds for FY 2012. 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 transportation improvements, interest earnings are credited against the recoverable costs. See Appendix E - Service Area Z Page 4.

#### Pre Credit Recoverable Cost for Impact Fee

Represents Recoverable Impact Fee TIP 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 transportation improvements. The credit recognizes ad valorem revenues used to fund non-debt financed impact fee eligible projects and assumes that all new debt issues associated with impact fees will be funded solely through impact fee revenues.

See Appendix E - Service Area Z, Page 6

#### Maximum Recoverable Cost for Impact Fee:

# E

G

2013 Transportation Impact Fee Study Plan for Awarding the Transportation Impact Fee Credit Supporting Exhibits (as prepared by J. Stowe & Co.)

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area A

#### I. General Assumptions

Annual Interest Rate on Deposits (1)

Annual Service Unit Growth (2)

Existing Fund Balance (3)

Portion of Projects Funded by Existing Debt (4)

Non-debt Funded Project Cost (4)

Project Cost Funded Through New Debt (4)

Total Recoverable Project Cost (5)

10.89%

31,523

\$

742,927

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	3,184,739	4.26%	20
3	3,184,739	4.28%	20
4	3,184,739	4.33%	20
5	3,184,739	4.40%	20
6	3,184,739	4.52%	20
7	3,184,739	4.63%	20
8	3,184,739	4.67%	20
9	3,184,739	4.72%	20
10	6,369,478	4.79%	20
Total	\$ 31.8/7.380		

#### III. Capital Expenditure Assumptions

	_	Annual Capital
<u>Year</u>	Exp	enditures <sup>(8)</sup>
1	\$	6.369.478
2	Ψ	6,369,478
3		6,369,478
4		6,369,478
5		6,369,478
6		6,369,478
7		6,369,478
8		6,369,478
9		6,369,478
10		6,369,478
Total	\$	63,694,778

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area A

#### I. New Debt Service Detail

<u>Year</u>	Series 1	Series 2	Series <u>3</u>	Series <u>4</u>	Series <u>5</u>	Series <u>6</u>	Series <u>7</u>	Series <u>8</u>	Series <u>9</u>	Series 10	Total Annual New Debt <u>Service</u>
1	\$ -	\$	- \$ -	- \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2	-	239	9,765		-	-	-	-	-	-	239,765
3	-	239	9,765 240,1	85 -	-	-	-	-	-	-	479,951
4	-	239	9,765 240,1	85 241,23	7 -	-	-	-	-	-	721,188
5	-	239	9,765 240,1				-	-	-	-	963,902
6	-	239	9,765 240,1	85 241,23	7 242,714	245,255	-	-	-		1,209,157
7	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	-	-	-	1,456,753
8	-	239	9,765 240,1				247,596	248,450	-	-	1,705,203
9	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520		1,954,723
10	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
11	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
12	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
13	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
14	-	239	9,765 240,1				247,596	248,450	249,520	502,042	
15	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
16	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
17	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
18	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
19	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
20	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
21	-	239	9,765 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,456,765
22	-		- 240,1	85 241,23	7 242,714	245,255	247,596	248,450	249,520	502,042	2,217,000
23	-			241,23			247,596	248,450	249,520	502,042	
24	-				242,714	245,255	247,596	248,450	249,520	502,042	1,735,577
25	-				-	245,255	247,596	248,450	249,520	502,042	1,492,863
26	-				-	-	247,596	248,450	249,520	502,042	1,247,609
27	-				-	-	-	248,450	249,520	502,042	1,000,012
28	-				-	-	-	· -	249,520	502,042	751,562
29	-				-	-	-	-	-	502,042	502,042
	\$ -	\$ 4,795	5,308 \$ 4,803,7	709 \$ 4,824,74	4 \$ 4,854,271	\$ 4,905,099	\$ 4,951,922	\$ 4,969,004	\$ 4,990,397	\$ 10,040,847	\$ 49,135,302

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital enditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual <u>Credit<sup>(4)</sup></u>	Total <u>Expense</u>
1	\$ -	\$ 6,369,478	\$ _	\$ _	\$ -	\$ (2,808)	\$ 6,366,669
2	239,765	6,369,478	(3,184,739)	-		(5,612)	3,418,892
3	479,951	6,369,478	(3,184,739)	-		(8,411)	3,656,279
4	721,188	6,369,478	(3,184,739)	-		(11,204)	3,894,723
5	963,902	6,369,478	(3,184,739)	-		(13,993)	4,134,648
6	1,209,157	6,369,478	(3,184,739)	-		(16,777)	4,377,119
7	1,456,753	6,369,478	(3,184,739)	-		(19,556)	4,621,936
8	1,705,203	6,369,478	(3,184,739)	-		(22,330)	4,867,612
9	1,954,723	6,369,478	(3,184,739)	-		(25,099)	5,114,362
10	2,456,765	6,369,478	(6,369,478)	-		(27,864)	2,428,902
11	2,456,765	-	-	-		-	2,456,765
12	2,456,765	-	-	-		-	2,456,765
13	2,456,765	-	-	-		-	2,456,765
14	2,456,765	-	-	-		-	2,456,765
15	2,456,765	-	-	-		-	2,456,765
16	2,456,765	-	-	-		-	2,456,765
17	2,456,765	-	-	-		-	2,456,765
18	2,456,765	-	-	-		-	2,456,765
19	2,456,765	-	-	-		-	2,456,765
20	2,456,765	-	-	-		-	2,456,765
21	2,456,765	-	-	-		-	2,456,765
22	2,217,000	-	-	-		-	2,217,000
23	1,976,814	-	-	-		-	1,976,814
24	1,735,577	-	-	-		-	1,735,577
25	1,492,863	-	-	-		-	1,492,863
26	1,247,609	-	-	-		-	1,247,609
27	1,000,012	-	-	-		-	1,000,012
28	751,562	-	-	-		-	751,562
29	 502,042	-	-	-		-	502,042
	\$ 49,135,302	\$ 63,694,778	\$ (31,847,389)	\$ -	\$ -	\$ (153,654)	\$ 80,829,037

<sup>(1)</sup> Appendix E - Service Area A, Page 2
(2) Appendix E - Service Area A, Page 1
(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area A, Page 6

## Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area A

		Future Value	Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vice Units		Annual E	Expe	ense
<u>Year</u>	End of Period	Factor	Factor	Actual	Escalated		Actual		Escalated
1	29	1.2855	1.0000	3,523	4,529	\$	6,366,669	\$	8,184,168
2	28	1.2742	1.0000	3,523	4,489		3,418,892		4,356,333
3	27	1.2630	1.0000	3,523	4,450		3,656,279		4,617,941
4	26	1.2519	1.0000	3,523	4,411		3,894,723		4,875,947
5	25	1.2410	1.0000	3,523	4,372		4,134,648		5,130,910
6	24	1.2301	1.0000	3,523	4,334		4,377,119		5,384,155
7	23	1.2193	1.0000	3,523	4,296		4,621,936		5,635,424
8	22	1.2086	1.0000	3,523	4,258		4,867,612		5,882,907
9	21	1.1980	1.0000	3,523	4,221		5,114,362		6,126,903
10	20	1.1875	1.0000	3,523	4,184		2,428,902		2,884,249
11	19	1.1771	1.0000	-	-		2,456,765		2,891,745
12	18	1.1667	1.0000	-	-		2,456,765		2,866,377
13	17	1.1565	1.0000	-	-		2,456,765		2,841,232
14	16	1.1463	1.0000	-	-		2,456,765		2,816,308
15	15	1.1363	1.0000	-	-		2,456,765		2,791,602
16	14	1.1263	1.0000	-	-		2,456,765		2,767,113
17	13	1.1164	1.0000	-	-		2,456,765		2,742,839
18	12	1.1066	1.0000	-	-		2,456,765		2,718,778
19	11	1.0969	1.0000	-	-		2,456,765		2,694,928
20	10	1.0873	1.0000	-	-		2,456,765		2,671,287
21	9	1.0778	1.0000	-	-		2,456,765		2,647,853
22	8	1.0683	1.0000	-	-		2,217,000		2,368,478
23	7	1.0590	1.0000	-	-		1,976,814		2,093,355
24	6	1.0497	1.0000	-	-		1,735,577		1,821,774
25	5	1.0405	1.0000	-	-		1,492,863		1,553,259
26	4	1.0313	1.0000	-	-		1,247,609		1,286,695
27	3	1.0223	1.0000	-	-		1,000,012		1,022,295
28	2	1.0133	1.0000	-	-		751,562		761,569
29	1	1.0044	1.0000	-	-		502,042		504,264
					43,543			\$	94,940,690
		Annual Interest Ra	ite:				0.89%		
		Present Value of In	nitial Impact Fee F	Fund Balance		\$	742,927		
		Total Encoloted C	roopee for Entire !	Dariad		<b>c</b>	04.040.000		
		Total Escalated Ex	•		•	\$	94,940,690		
		Less Future Value	oi iniliai impact F	ee Fund Balance		<b>Φ</b>	959,218	-	
		Sub-Total				\$	93,981,472		
		Total Escalated Se	ervice Units				43,543		
		Impact Fee for Se	ervice Area A			\$	2,158		

#### Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area A

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>	Annual Expenses		<u>Sub-Total</u>		Accumulated Interest		Estimated Fund <u>Balance</u>
Initial									\$	742,927
1	\$ 2,158	\$ 3,523	\$ 7,604,324	\$ 6,366,669	\$	1,237,654	\$	12,052		1,992,633
2	2,158	3,523	7,604,324	3,418,892		4,185,431		36,155		6,214,219
3	2,158	3,523	7,604,324	3,656,279		3,948,044		72,466		10,234,730
4	2,158	3,523	7,604,324	3,894,723		3,709,601		106,992		14,051,323
5	2,158	3,523	7,604,324	4,134,648		3,469,676		139,708		17,660,707
6	2,158	3,523	7,604,324	4,377,119		3,227,205		170,578		21,058,489
7	2,158	3,523	7,604,324	4,621,936		2,982,388		199,565		24,240,442
8	2,158	3,523	7,604,324	4,867,612		2,736,712		226,638		27,203,792
9	2,158	3,523	7,604,324	5,114,362		2,489,961		251,772		29,945,524
10	2,158	3,523	7,604,324	2,428,902		5,175,422		287,919		35,408,866
11	-	-	-	2,456,765		(2,456,765)		302,497		33,254,598
12	-	-	-	2,456,765		(2,456,765)		283,432		31,081,265
13	-	-	-	2,456,765		(2,456,765)		264,198		28,888,698
14	-	-	-	2,456,765		(2,456,765)		244,794		26,676,726
15	-	-	-	2,456,765		(2,456,765)		225,218		24,445,179
16	-	-	-	2,456,765		(2,456,765)		205,469		22,193,883
17	-	-	-	2,456,765		(2,456,765)		185,545		19,922,662
18	-	-	-	2,456,765		(2,456,765)		165,444		17,631,342
19	-	-	-	2,456,765		(2,456,765)		145,166		15,319,743
20	-	-	-	2,456,765		(2,456,765)		124,709		12,987,686
21	-	-	-	2,456,765		(2,456,765)		104,070		10,634,991
22	-	-	-	2,217,000		(2,217,000)		84,309		8,502,301
23	-	-	-	1,976,814		(1,976,814)		66,498		6,591,984
24	-	-	-	1,735,577		(1,735,577)		50,659		4,907,066
25	-	-	-	1,492,863		(1,492,863)		36,822		3,451,025
26	-	-	-	1,247,609		(1,247,609)		25,021		2,228,437
27	-	-	-	1,000,012		(1,000,012)		15,297		1,243,721
28	-	-	-	751,562		(751,562)		7,681		499,840
29	-	-	-	502,042	in the second	(502,042)		2,202		0
			\$ 76,043,237	\$ 80,829,037			\$	4,042,874		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area A

Impact Fee Project Name <sup>(1)</sup>	Impact Fee Project No. <sup>(1)</sup>	Cost in Service Area <sup>(1)</sup>	Impact Fee Recoverable Cost <sup>(2)</sup>	•		Non-Debt Funded <sup>(3)</sup>	Impact Fee Recoverable Cost
Litsey Rd. (1)	A-1	\$ 2,340,000	\$ 2,273,130	\$ - \$	1,136,565 \$	1,136,565	\$ 2,273,130
Litsey Rd. (2)	A-2	1,267,000	1,230,793	-	615,397	615,397	1,230,793
Litsey Rd. (3)	A-3	3,583,000	3,480,609	=	1,740,305	1,740,305	3,480,609
Litsey Rd. (4)	A-4	560,000	543,997	=	271,999	271,999	543,997
Litsey Rd. (5)	A-5	1,600,000	1,554,277	=	777,139	777,139	1,554,277
Litsey Rd. (6)	A-6	1,273,000	1,236,622	-	618,311	618,311	1,236,622
Litsey Rd. (7)	A-7	2,309,000	2,243,016	-	1,121,508	1,121,508	2,243,016
Eagle Pkwy. (1)	A-8	3,709,000	3,603,009	-	1,801,504	1,801,504	3,603,009
Eagle Pkwy. (2)	A-9	3,974,000	3,860,436	-	1,930,218	1,930,218	3,860,436
Henrietta Creek Rd.	A-10	1,130,000	1,097,708	-	548,854	548,854	1,097,708
Westport Pkwy. (1)	A-11	612,000	594,511	-	297,256	297,256	594,511
Westport Pkwy. (2)	A-12	3,482,000	3,382,496	-	1,691,248	1,691,248	3,382,496
Westport Pkwy. (3)	A-13	3,888,000	3,776,894	-	1,888,447	1,888,447	3,776,894
Westport Pkwy. (4)	A-14	2,610,000	2,535,415	-	1,267,707	1,267,707	2,535,415
Westport Pkwy. (5)	A-15	806,000	782,967	-	391,484	391,484	782,967
Westport Pkwy. (6)	A-16	642,000	623,654	-	311,827	311,827	623,654
Westport Pkwy. (7)	A-17	2,732,000	2,653,928	=	1,326,964	1,326,964	2,653,928
Westport Pkwy. (8)	A-18	1,341,000	1,302,679	=	651,339	651,339	1,302,679
Timberland Blvd. (1)	A-19, D-1	272,459	264,673	=	132,336	132,336	264,673
Timberland Blvd. (2)	A-20, D-2	985,000	956,852	=	478,426	478,426	956,852
Timberland Blvd. (3)	A-21, D-3	785,500	763,053	=	381,526	381,526	763,053
Timberland Blvd. (4)	A-22, D-5	347,500	337,570	=	168,785	168,785	337,570
Old Denton Rd. (1)	A-23	3,605,000	3,501,981	=	1,750,990	1,750,990	3,501,981
N. Beach St. (1)	A-24	4,391,000	4,265,519	=	2,132,760	2,132,760	4,265,519
N. Beach St. (2)	A-25	2,388,000	2,319,759	-	1,159,879	1,159,879	2,319,759
N. Beach St. (3)	A-26	1,844,000	1,791,304	-	895,652	895,652	1,791,304
N. Beach St. (4)	A-27, D-23	1,691,500	1,643,162	-	821,581	821,581	1,643,162
N. Beach St. (5)	A-28, D-24	689,000	669,311	-	334,655	334,655	669,311
Independence Pkwy. (1)	A-29	8,404,000	8,163,841	-	4,081,920	4,081,920	8,163,841
Park Vista Blvd. (1)	A-30	2,282,000	2,216,788	-	1,108,394	1,108,394	2,216,788
2013 Transportation Impact Fee Study		25,556	24,825	<u>-</u>	12,413	12,413	24,825
	Total	\$ 65,568,514	\$ 63,694,778	\$ - \$	31,847,389 \$	31,847,389	\$ 63,694,778

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

#### City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area A

2012 Population (All Service Areas)<sup>(1)</sup>

Ten Year Growth in Population (Service Area A)<sup>(2)</sup>

Annual Growth in Population

6,777

10 years

Annual Growth in Population

		1	2	2	3		4	5	6	7		8	9	10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 3,	184,739	\$ 3,18	84,739	\$ 3,184,739	9 \$ 3,	184,739	\$ 3,184,739	\$ 3,184,739	\$ 3,184,73	9 \$ 3	3,184,739	\$ 3,184,739	\$ 3,184,739	\$ 31,847,389
Population (All Service Areas)		768,488	76	69,165	769,843	3	770,521	771,198	771,876	772,55	4	773,232	773,909	774,587	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	4.14	\$	4.14	\$ 4.14	\$	4.13	\$ 4.13	\$ 4.13	\$ 4.1	2 \$	4.12	\$ 4.12	\$ 4.11	
Annual Growth in Service Area A Population (Cumulative)		678		1,355	2,033	3	2,711	3,388	4,066	4,74	4	5,422	6,099	6,777	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	2,808	\$	5,612	\$ 8,41°	\$	11,204	\$ 13,993	\$ 16,777	\$ 19,55	6 \$	22,330	\$ 25,099	\$ 27,864	\$ 153,654

153,654

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area AA

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	2,589
Existing Fund Balance (3)	\$ 84,458
Portion of Projects Funded by Existing Debt (4)	\$ -
Non-debt Funded Project Cost (4)	2,478,972
Project Cost Funded Through New Debt (4)	2,478,972
Total Recoverable Project Cost (5)	\$ 4,957,944

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>			
1	\$ -	4.25%	20			
2	247,897	4.26%	20			
3	247,897	4.28%	20			
4	247,897	4.33%	20			
5	247,897	4.40%	20			
6	247,897	4.52%	20			
7	247,897	4.63%	20			
8	247,897	4.67%	20			
9	247,897	4.72%	20			
10	495,794	4.79%	20			
Total	\$ 2,478,972					

#### III. Capital Expenditure Assumptions

		Annual Capital
<u>Year</u>	Ex	penditures <sup>(8)</sup>
1	\$	495,794
=	φ	,
2		495,794
3		495,794
4		495,794
5		495,794
6		495,794
7		495,794
8		495,794
9		495,794
10		495,794
Total	\$	4,957,944

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area AA

#### I. New Debt Service Detail

<u>Year</u>	Series <u>1</u>	Series 2	Series 3	Series	Series <u>5</u>	Series	Series Z	Series <u>8</u>	Series	Series 10	Total Annual New Debt <u>Service</u>
1	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2	-	18,663	-	-	-	-	-	-	-	-	18,663
3	-	18,663	18,696	-	-	-	-	-	-	-	37,359
4	-	18,663	18,696	18,778	-	-	-	-	-	-	56,137
5	-	18,663	18,696	18,778	18,893	-	-	-	-	-	75,029
6	-	18,663	18,696	18,778	18,893	19,090	-	-	-	-	94,120
7	-	18,663	18,696	18,778	18,893	19,090	19,273	-	-	-	113,392
8	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	-	-	132,731
9	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	-	152,154
10	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
11	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
12	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
13	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
14	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
15	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
16	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
17	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
18	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
19	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
20	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
21	-	18,663	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	191,232
22	-	-	18,696	18,778	18,893	19,090	19,273	19,339	19,422	39,079	172,569
23	-	-	-	18,778	18,893	19,090	19,273	19,339	19,422	39,079	153,873
24	-	-	-	•	18,893	19,090	19,273	19,339	19,422	39,079	135,096
25	-	-	-	-	-	19,090	19,273	19,339	19,422	39,079	116,203
26	-	-	-	-	-	-	19,273	19,339	19,422	39,079	97,113
27	-	-	-	-	-	-	-	19,339	19,422	39,079	77,840
28	-	-	-	-	-	-	-	-	19,422	39,079	58,501
29	<del></del>	 								39,079	39,079
	\$ -	\$ 373,262 \$	373,916 \$	375,554 \$	377,852 \$	381,808 \$	385,453 \$	386,783 \$	388,448 \$	781,570 \$	3,824,648

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital enditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>		Total opense
1	\$ -	\$ 495,794	\$ _	\$ _	\$ _	\$ (54) \$	;	495,741
2	18,663	495,794	(247,897)	-		(107)		266,453
3	37,359	495,794	(247,897)	-		(161)		285,095
4	56,137	495,794	(247,897)	-		(215)		303,819
5	75,029	495,794	(247,897)	-		(268)		322,658
6	94,120	495,794	(247,897)	-		(322)		341,695
7	113,392	495,794	(247,897)	-		(375)		360,914
8	132,731	495,794	(247,897)	-		(429)		380,200
9	152,154	495,794	(247,897)	-		(482)		399,569
10	191,232	495,794	(495,794)	-		(536)		190,697
11	191,232	-	-	-		-		191,232
12	191,232	-	-	-		-		191,232
13	191,232	-	-	-		-		191,232
14	191,232	-	-	-		-		191,232
15	191,232	-	-	-		-		191,232
16	191,232	-	-	-		-		191,232
17	191,232	-	-	-		-		191,232
18	191,232	-	-	-		-		191,232
19	191,232	-	-	-		-		191,232
20	191,232	-	-	-		-		191,232
21	191,232	-	-	-		-		191,232
22	172,569	-	-	-		-		172,569
23	153,873	-	-	-		-		153,873
24	135,096	-	-	-		-		135,096
25	116,203	-	-	-		-		116,203
26	97,113	-	-	-		-		97,113
27	77,840	-	-	-		-		77,840
28	58,501	-	-	-		-		58,501
29	 39,079	-	-	-		-		39,079
	\$ 3,824,648	\$ 4,957,944	\$ (2,478,972)	\$ -	\$ -	\$ (2,948) \$	; —	6,300,671

<sup>(1)</sup> Appendix E - Service Area AA, Page 2
(2) Appendix E - Service Area AA, Page 1
(2) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area AA, Page 6

## Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area AA

<u>Year</u>	Number of Years to End of Period	Future Value Interest Rate <u>Factor</u>	Escalation Recovery Fee <u>Factor</u>	Annual Ser <u>Actual</u>	vice Units <u>Escalated</u>	<u>.</u>	Annual E <u>Actual</u>		nse Escalated
1	29	1.2855	1.0000	2,589	3,328		495,741	\$	637,260
2	28	1.2742	1.0000	2,589	3,299	,	266,453	Ψ	339,513
3	27	1.2630	1.0000	2,589	3,270		285,095		360,080
4	26	1.2519	1.0000	2,589	3,241		303,819		380,363
5	25	1.2410	1.0000	2,589	3,213		322,658		400,404
6	24	1.2301	1.0000	2,589	3,185		341,695		420,308
7	23	1.2193	1.0000	2,589	3,157		360,914		440,055
8	22	1.2086	1.0000	2,589	3,129		380,200		459,503
9	21	1.1980	1.0000	2,589	3,102		399,569		478,675
10	20	1.1875	1.0000	2,589	3,074		190,697		226,447
11	19	1.1771	1.0000	-	-		191,232		225,091
12	18	1.1667	1.0000	_	_		191,232		223,116
13	17	1.1565	1.0000	_	_		191,232		221,159
14	16	1.1463	1.0000	_	_		191,232		219,219
15	15	1.1363	1.0000	_	_		191,232		217,296
16	14	1.1263	1.0000	_	_		191,232		215,390
17	13	1.1164	1.0000	_	_		191,232		213,500
18	12	1.1066	1.0000	_	_		191,232		211,627
19	11	1.0969	1.0000	_	_		191,232		209,771
20	10	1.0873	1.0000	_	_		191,232		207,931
21	9	1.0778	1.0000	_	_		191,232		206,107
22	8	1.0683	1.0000	_	_		172,569		184,360
23	7	1.0590	1.0000	_	_		153,873		162,945
24	6	1.0497	1.0000	_	_		135,096		141,805
25	5	1.0405	1.0000	_	_		116,203		120,904
26	4	1.0313	1.0000	_	_		97,113		100,155
27	3	1.0223	1.0000	_	_		77,840		79,574
28	2	1.0133	1.0000	_	_		58,501		59,280
29	1	1.0044	1.0000	_	_		39,079		39,251
					31,999		,	\$	7,401,089
		Annual Interest Ra	te:				0.89%		
		Present Value of Ir	nitial Impact Fee	Fund Balance	5	5	84,458		
		Total Escalated Ex Less Future Value				6	7,401,089 109,047		
		Sub-Total			Ş	6	7,292,042	-	
		Total Escalated Se					31,999		
		Impact Fee for Se	rvice Area AA		•	5	228		

### Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area AA

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>			Annual xpenses				ccumulated <u>Interest</u>		Estimated Fund <u>Balance</u>
Initial										\$	84,458
1	\$ 228	\$ 2,589	\$ 590,021	\$	495,741	\$	94,280	\$	1,165		179,903
2	228	2,589	590,021		266,453		323,568		3,024		506,495
3	228	2,589	590,021		285,095		304,926		5,832		817,253
4	228	2,589	590,021		303,819		286,202		8,499		1,111,954
5	228	2,589	590,021		322,658		267,363		11,024		1,390,341
6	228	2,589	590,021		341,695		248,326		13,403		1,652,070
7	228	2,589	590,021		360,914		229,107		15,635		1,896,811
8	228	2,589	590,021		380,200		209,821		17,715		2,124,347
9	228	2,589	590,021		399,569		190,452		19,643		2,334,443
10	228	2,589	590,021		190,697		399,324		22,427		2,756,194
11	-	-	-		191,232		(191,232)		23,546		2,588,508
12	-	-	-		191,232		(191,232)		22,062		2,419,338
13	-	-	-		191,232		(191,232)		20,565		2,248,670
14	-	-	-		191,232		(191,232)		19,055		2,076,492
15	-	-	-		191,232		(191,232)		17,531		1,902,791
16	-	-	-		191,232		(191,232)		15,993		1,727,552
17	-	-	-		191,232		(191,232)		14,443		1,550,762
18	-	-	-		191,232		(191,232)		12,878		1,372,408
19	-	-	-		191,232		(191,232)		11,300		1,192,475
20	-	-	-		191,232		(191,232)		9,707		1,010,950
21	-	-	-		191,232		(191,232)		8,101		827,818
22	-	-	-		172,569		(172,569)		6,563		661,811
23	-	-	-		153,873		(153,873)		5,176		513,114
24	-	-	-		135,096		(135,096)		3,943		381,962
25	-	-	-		116,203		(116,203)		2,866		268,625
26	-	-	-		97,113		(97,113)		1,948		173,460
27	-	-	-		77,840		(77,840)		1,191		96,810
28	-	-	-		58,501		(58,501)		598		38,907
29	-	-	 -		39,079		(39,079)		171	i	0
			\$ 5,900,210	\$	6,300,671			\$	316,002		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area AA

	Impact Fee		Cost in		Impact Fee	Debt F	und	ed <sup>(3)</sup>		Non-Debt		Impact Fee
Impact Fee Project Name <sup>(1)</sup>	Project No. (1)	Project No. <sup>(1)</sup> Se		<u>F</u>	Recoverable Cost <sup>(2)</sup>	<b>Existing</b>	<u>Proposed</u>		Funded <sup>(3)</sup>		Recoverable Cost	
Intermodal Pkwy.	AA-1	\$	4,178,000	\$	3,943,660	\$ -	\$	1,971,830	\$	1,971,830	\$	3,943,660
Cleveland-Gibbs Rd.	AA-2		1,049,000		990,163	-		495,081		495,081		990,163
2013 Transportation Impact Fee			25,555		24,122	-		12,061		12,061		24,122
	Total	\$	5,252,555	\$	4,957,944	\$ -	\$	2,478,972	\$	2,478,972	\$	4,957,944

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

### City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination
Appendix E - Service Area AA

2012 Population (All Service Areas) <sup>(1)</sup>	767,810
Ten Year Growth in Population (Service Area AA) <sup>(2)</sup>	1,663
Annual Growth in Population	10_years 166

	1		2		3	4		5	6		7	8	9		10	Tot	.al
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 247,897 \$	5 2	247,897 \$	2	247,897 \$	247	7,897 \$	247,897 \$	247,8	97 \$	247,897	\$ 247,897	247,897	\$	247,897	\$ 2,47	78,972
Population (All Service Areas)	767,976	7	768,143	7	68,309	768	3,475	768,641	768,8	808	768,974	769,140	769,307	,	769,473		
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$ 0.32 \$	6	0.32 \$	;	0.32 \$		0.32 \$	0.32 \$	0	.32 \$	0.32	\$ 0.32	0.32	\$	0.32		
Annual Growth in Service Area AA Population (Cumulative)	166		333		499		665	831	9	98	1,164	1,330	1,497	,	1,663		
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$ 54 \$	6	107 \$	i	161 \$		215 \$	268 \$	3	22 \$	375	\$ 429	\$ 482	2 \$	536	\$	2,948

2,948

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees Impact Fee Calculation Assumptions Appendix E - Service Area B

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	3,553
Existing Fund Balance (3)	\$ 949,073
Portion of Projects Funded by Existing Debt (4)	\$ -
Non-debt Funded Project Cost (4)	36,075,937
Project Cost Funded Through New Debt (4)	36,075,937
Total Recoverable Project Cost (5)	\$ 72.151.873

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	3,607,594	4.26%	20
3	3,607,594	4.28%	20
4	3,607,594	4.33%	20
5	3,607,594	4.40%	20
6	3,607,594	4.52%	20
7	3,607,594	4.63%	20
8	3,607,594	4.67%	20
9	3,607,594	4.72%	20
10	7,215,187	4.79%	20
Total	\$ 36,075,937		

### III. Capital Expenditure Assumptions

<u>Year</u>	Annual Capital <u>Expenditures <sup>(8)</sup></u>
1	\$ 7,215,187
-	, , , ,
2	7,215,187
3	7,215,187
4	7,215,187
5	7,215,187
6	7,215,187
7	7,215,187
8	7,215,187
9	7,215,187
10	7,215,187
Total	\$ 72,151,873

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area B

#### I. New Debt Service Detail

<u>Year</u>	Series 1	Serie <u>2</u>	es	Series <u>3</u>	Series	Series 5	Series	Series <u>7</u>	Series <u>8</u>	Series 9	Series 10	Total Annual New Debt <u>Service</u>
1	\$ -	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	; -
2	-	:	271,600	-	-	-	-	-	-	-	-	271,600
3	-	:	271,600	272,076	-	-	-	-	-	-	-	543,677
4	-		271,600	272,076	273,268	-	-	-	-	-	-	816,944
5	-	:	271,600	272,076	273,268	274,940	-	-	-	-	-	1,091,884
6	-		271,600	272,076	273,268	274,940	277,819	-	-	-	-	1,369,703
7	-		271,600	272,076	273,268	274,940	277,819	280,471	-	-	-	1,650,174
8	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	-	-	1,931,612
9	-		271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	-	2,214,262
10	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
11	-		271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
12	-		271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
13	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
14	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
15	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
16	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
17	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
18	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
19	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
20	-		271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
21	-	:	271,600	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,782,963
22	-		-	272,076	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,511,363
23	-		-	-	273,268	274,940	277,819	280,471	281,438	282,650	568,701	2,239,286
24	-		-	-	-	274,940	277,819	280,471	281,438	282,650	568,701	1,966,019
25	-		-	-	-	-	277,819	280,471	281,438	282,650	568,701	1,691,079
26	-		-	-	-	-	-	280,471	281,438	282,650	568,701	1,413,260
27	-		-	-	-	-	-	-	281,438	282,650	568,701	1,132,789
28	-		-	-	-	-	-	-	-	282,650	568,701	851,351
29	-		-	-	-	-	-	-	-	-	568,701	568,701
	\$ -	\$ 5,	432,007 \$	5,441,524 \$	5,465,351 \$	5,498,799 \$	5,556,375 \$	5,609,415 \$	5,628,765 \$	5,652,999 \$	11,374,024 \$	55,659,258

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital enditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total <u>Expense</u>	
1	\$ _	\$ 7,215,187	\$ _	\$ -	\$ _	\$ (4,531) \$	7,210,656	
2	271,600	7,215,187	(3,607,594)	-		(9,051)	3,870,143	
3	543,677	7,215,187	(3,607,594)	-		(13,559)	4,137,711	
4	816,944	7,215,187	(3,607,594)	-		(18,056)	4,406,482	
5	1,091,884	7,215,187	(3,607,594)	-		(22,542)	4,676,936	
6	1,369,703	7,215,187	(3,607,594)	-		(27,017)	4,950,280	
7	1,650,174	7,215,187	(3,607,594)	-		(31,480)	5,226,287	
8	1,931,612	7,215,187	(3,607,594)	-		(35,933)	5,503,273	
9	2,214,262	7,215,187	(3,607,594)	-		(40,374)	5,781,481	
10	2,782,963	7,215,187	(7,215,187)	-		(44,804)	2,738,159	
11	2,782,963	-	-	-		-	2,782,963	
12	2,782,963	-	-	-		-	2,782,963	
13	2,782,963	-	-	-		-	2,782,963	
14	2,782,963	-	-	-		-	2,782,963	
15	2,782,963	-	-	-		-	2,782,963	
16	2,782,963	-	-	-		-	2,782,963	
17	2,782,963	-	-	-		-	2,782,963	
18	2,782,963	-	-	-		-	2,782,963	
19	2,782,963	-	-	-		-	2,782,963	
20	2,782,963	-	-	-		-	2,782,963	
21	2,782,963	-	-	-		-	2,782,963	
22	2,511,363	-	-	-		-	2,511,363	
23	2,239,286	-	-	-		-	2,239,286	
24	1,966,019	-	-	-		-	1,966,019	
25	1,691,079	-	-	-		-	1,691,079	
26	1,413,260	-	-	-		-	1,413,260	
27	1,132,789	-	-	-		-	1,132,789	
28	851,351	-	-	-		-	851,351	
29	 568,701	-	-	-		-	568,701	
	\$ 55,659,258	\$ 72,151,873	\$ (36,075,937)	\$ -	\$ -	\$ (247,347) \$	91,487,847	

<sup>(1)</sup> Appendix E - Service Area B, Page 2
(2) Appendix E - Service Area B, Page 1
(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area B, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area B

		Future Value	Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vice Units		Annual E	-xn	ense
<u>Year</u>	End of Period	Factor	Factor	Actual	Escalated		Actual	-//	Escalated
<u>1 0 u.                                   </u>	2110 01 1 01100	<u> </u>	1 40101	riotaar	<u> </u>		rotaar		<u> </u>
1	29	1.2855	1.0000	3,553	4,567	\$	7,210,656	\$	9,269,089
2	28	1.2742	1.0000	3,553	4,527		3,870,143		4,931,315
3	27	1.2630	1.0000	3,553	4,487		4,137,711		5,225,998
4	26	1.2519	1.0000	3,553	4,448		4,406,482		5,516,637
5	25	1.2410	1.0000	3,553	4,409		4,676,936		5,803,864
6	24	1.2301	1.0000	3,553	4,370		4,950,280		6,089,183
7	23	1.2193	1.0000	3,553	4,332		5,226,287		6,372,296
8	22	1.2086	1.0000	3,553	4,294		5,503,273		6,651,156
9	21	1.1980	1.0000	3,553	4,256		5,781,481		6,926,098
10	20	1.1875	1.0000	3,553	4,219		2,738,159		3,251,483
11	19	1.1771	1.0000	-	-		2,782,963		3,275,697
12	18	1.1667	1.0000	-	-		2,782,963		3,246,961
13	17	1.1565	1.0000	-	-		2,782,963		3,218,478
14	16	1.1463	1.0000	-	_		2,782,963		3,190,244
15	15	1.1363	1.0000	-	-		2,782,963		3,162,258
16	14	1.1263	1.0000	-	-		2,782,963		3,134,518
17	13	1.1164	1.0000	-	-		2,782,963		3,107,020
18	12	1.1066	1.0000	-	-		2,782,963		3,079,765
19	11	1.0969	1.0000	-	-		2,782,963		3,052,748
20	10	1.0873	1.0000	-	-		2,782,963		3,025,968
21	9	1.0778	1.0000	-	_		2,782,963		2,999,423
22	8	1.0683	1.0000	-	_		2,511,363		2,682,953
23	7	1.0590	1.0000	-	_		2,239,286		2,371,301
24	6	1.0497	1.0000	-	-		1,966,019		2,063,660
25	5	1.0405	1.0000	-	-		1,691,079		1,759,494
26	4	1.0313	1.0000	-	-		1,413,260		1,457,536
27	3	1.0223	1.0000	-	-		1,132,789		1,158,030
28	2	1.0133	1.0000	-	-		851,351		862,686
29	1	1.0044	1.0000	-	-		568,701		571,218
					43,911			\$	107,457,076
		Annual Interest Ra	te:				0.89%		
		Present Value of Ir	nitial Impact Fee F	Fund Balance		\$	949,073		
		Total Escalated Ex	nanca for Entiro	Period		\$	107,457,076		
		Less Future Value			2	Ψ	1,225,380		
		Sub-Total	oi ilililai ililpact F	CO I UNU DAIANCE		\$	106,231,696	•	
		Total Escalated Se	ervice Units				43,911		
		Impact Fee for Se		\$	2,419				

### Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area B

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>		Annual Expenses		Sub-Total	Accumulated Interest		Estimated Fund <u>Balance</u>
Initial										\$ 949,073
1	\$ 2,419	\$ 3,553	\$ 8,595,526	\$	7,210,656	\$	1,384,870	\$	14,527	2,348,470
2	2,419	3,553	8,595,526		3,870,143		4,725,383		41,694	7,115,547
3	2,419	3,553	8,595,526		4,137,711		4,457,815		82,698	11,656,060
4	2,419	3,553	8,595,526		4,406,482		4,189,045		121,693	15,966,798
5	2,419	3,553	8,595,526		4,676,936		3,918,591		158,646	20,044,034
6	2,419	3,553	8,595,526		4,950,280		3,645,247		193,520	23,882,801
7	2,419	3,553	8,595,526		5,226,287		3,369,239		226,272	27,478,312
8	2,419	3,553	8,595,526		5,503,273		3,092,253		256,866	30,827,432
9	2,419	3,553	8,595,526		5,781,481		2,814,045		285,275	33,926,751
10	2,419	3,553	8,595,526		2,738,159		5,857,368		326,171	40,110,290
11	-	-	-		2,782,963		(2,782,963)		342,661	37,669,988
12	-	-	-		2,782,963		(2,782,963)		321,065	35,208,090
13	-	-	-		2,782,963		(2,782,963)		299,277	32,724,404
14	-	-	-		2,782,963		(2,782,963)		277,296	30,218,738
15	-	-	-		2,782,963		(2,782,963)		255,121	27,690,896
16	-	-	-		2,782,963		(2,782,963)		232,750	25,140,683
17	-	-	-		2,782,963		(2,782,963)		210,180	22,567,900
18	-	-	-		2,782,963		(2,782,963)		187,411	19,972,349
19	-	-	-		2,782,963		(2,782,963)		164,441	17,353,826
20	-	-	-		2,782,963		(2,782,963)		141,267	14,712,130
21	-	-	-		2,782,963		(2,782,963)		117,888	12,047,055
22	-	-	-		2,511,363		(2,511,363)		95,504	9,631,196
23	-	-	-		2,239,286		(2,239,286)		75,327	7,467,237
24	-	-	-		1,966,019		(1,966,019)		57,385	5,558,604
25	-	-	-		1,691,079		(1,691,079)		41,711	3,909,236
26	-	-	-		1,413,260		(1,413,260)		28,343	2,524,318
27	-	-	-		1,132,789		(1,132,789)		17,328	1,408,857
28	-	-	-		851,351		(851,351)		8,701	566,207
29	-	-	-		568,701		(568,701)		2,494	0
			\$ 85,955,262	\$	91,487,847			\$	4,583,512	

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area B

	Impact Fee	Cost in		Impact Fee			Debt F	und	ed <sup>(3)</sup>	Non-Debt		Impact Fee		
Impact Fee Project Name <sup>(1)</sup>	Project No. <sup>(1)</sup>	Service Area	(1)	Recoverable C	ost <sup>(2)</sup>		Existing		Proposed		Funded <sup>(3)</sup>	Re	coverable Cost	
Eagle Pkwy.	B-1	\$ 6,384,5	00	\$ 4,52	9,126	\$	_	\$	2,264,563	\$	2,264,563	\$	4,529,126	
Rancho Canyon Way (1)	B-2	9,470,0	00	6,71	7,961		-		3,358,981		3,358,981		6,717,961	
Rancho Canyon Way (2)	B-3	1,222,0	00	86	6,880		-		433,440		433,440		866,880	
Avondale Haslet Rd. (1)	B-4	3,205,6	80	2,27	4,039		-		1,137,020		1,137,020		2,274,039	
Avondale Haslet Rd. (2)	B-5	1,609,0	00	1,14	1,415		-		570,707		570,707		1,141,415	
Avondale Haslet Rd. (3)	B-6	165,0	00	11	7,050		-		58,525		58,525		117,050	
Avondale Haslet Rd. (4)	B-7	1,808,0	00	1,28	2,584		-		641,292		641,292		1,282,584	
Avondale Haslet Rd. (5)	B-8	943,0	00	66	8,959		-		334,479		334,479		668,959	
Avondale Haslet Rd. (6)	B-9	2,730,0	00	1,93	6,646		-		968,323		968,323		1,936,646	
Blue Mound Rd.	B-10	5,181,0	00	3,67	5,370		-		1,837,685		1,837,685		3,675,370	
Sendera Ranch Blvd. (1)	B-11	8,158,0	00	5,78	7,236		-		2,893,618		2,893,618		5,787,236	
Sendera Ranch Blvd. (2)	B-12	2,423,0	00	1,71	8,862		-		859,431		859,431		1,718,862	
Sendera Ranch Blvd. (3)	B-13	1,354,0	00	96	0,520		-		480,260		480,260		960,520	
Sendera Ranch Blvd. (4)	B-14	2,071,0	00	1,46	9,155		-		734,578		734,578		1,469,155	
Sendera Ranch Blvd. (5)	B-15	481,0	00	34	1,219		-		170,609		170,609		341,219	
Sendera Ranch Blvd. (6)	B-16	4,678,0	00	3,31	8,545		-		1,659,273		1,659,273		3,318,545	
Sendera Ranch Blvd. (7)	B-17	1,849,0	00	1,31	1,670		-		655,835		655,835		1,311,670	
Sendera Ranch Blvd. (8)	B-18	18,225,0	00	12,92	8,706		-		6,464,353		6,464,353		12,928,706	
John Day Rd. (1)	B-19	13,392,0	00	9,50	0,205		-		4,750,102		4,750,102		9,500,205	
John Day Rd. (2)	B-20	998,0	00	70	7,975		-		353,988		353,988		707,975	
Willow Springs Rd. (1)	B-21	713,0	00	50	5,798		-		252,899		252,899		505,798	
Willow Springs Rd. (2)	B-22	6,462,0	00	4,58	4,104		-		2,292,052		2,292,052		4,584,104	
Willow Springs Rd. (3)	B-23	4,628,0	00	3,28	3,076		-		1,641,538		1,641,538		3,283,076	
Wagley Robertson Rd. (1)	B-24, C-14	3,533,5	00	2,50	6,644		-		1,253,322		1,253,322		2,506,644	
2013 Transportation Impact Fee Study		25,5	55	1	8,129		-		9,064		9,064		18,129	
	Total	\$ 101,709,1	63	\$ 72,15	1,873	\$	-	\$	36,075,937	\$	36,075,937	\$	72,151,873	

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area B

2012 Population (All Service Areas) <sup>(1)</sup>	767,810	
Ten Year Growth in Population (Service Area B) <sup>(2)</sup>	9,656	
Annual Growth in Population	966	years

\$ 247,347

		1		2	3	3	4			5	6		7	8		9		10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 3,	,607,594	\$ 3,	607,594	\$ 3,60	07,594	\$ 3,60	7,594	\$ 3,6	607,594	\$ 3,607,5	94 \$	3,607,594	\$ 3,607,59	1 \$ 3	3,607,594	\$ 3,	607,594	\$ 36,075,937
Population (All Service Areas)		768,776		769,741	77	70,707	77	1,672	7	772,638	773,6	03	774,569	775,53	5	776,500		777,466	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	4.69	\$	4.69	\$	4.68	\$	4.68	\$	4.67	\$ 4	66 \$	4.66	\$ 4.69	5 \$	4.65	\$	4.64	
Annual Growth in Service Area B Population (Cumulative)		966		1,931		2,897		3,862		4,828	5,7	93	6,759	7,72	5	8,690		9,656	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	4,531	\$	9,051	\$ 1	13,559	\$ 1	8,056	\$	22,542	\$ 27,0	17 \$	31,480	\$ 35,93	3 \$	40,374	\$	44,804	\$ 247,347

(2) Table 6 of Report

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area C

#### I. General Assumptions

Annual Interest Rate on Deposits (1)

Annual Service Unit Growth (2)

Existing Fund Balance (3)

Portion of Projects Funded by Existing Debt (4)

Non-debt Funded Project Cost (4)

Project Cost Funded Through New Debt (4)

Total Recoverable Project Cost (5)

10.89%

2,630,961

\$
2,630,961

\$
44,021,171

44,021,171

Total Recoverable Project Cost (5)

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	4,402,117	4.26%	20
3	4,402,117	4.28%	20
4	4,402,117	4.33%	20
5	4,402,117	4.40%	20
6	4,402,117	4.52%	20
7	4,402,117	4.63%	20
8	4,402,117	4.67%	20
9	4,402,117	4.72%	20
10	8,804,234	4.79%	20
Total	\$ 44 021 171		

### III. Capital Expenditure Assumptions

		Annual Capital
<u>Year</u>	Exp	enditures <sup>(8)</sup>
1	\$	8,804,234
2		8,804,234
3		8,804,234
4		8,804,234
5		8,804,234
6		8,804,234
7		8,804,234
8		8,804,234
9		8,804,234
10		8,804,234
Total	\$	88,042,341

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area C

#### I. New Debt Service Detail

<u>Year</u>	Series <u>1</u>	Series	Series	Series	Series <u>5</u>	Series	Series 7	Series <u>8</u>	Series	Series 10	Total Annual New Debt <u>Service</u>
1	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2		331,417	-	-	-	-	-	-	-	-	331,417
3	-	331,417	331,997	-	-	-	-	-	-	-	663,414
4	-	331,417	331,997	333,451	-	-	-	-	-	-	996,865
5	-	331,417	331,997	333,451	335,492	-	-	-	-	-	1,332,357
6	-	331,417	331,997	333,451	335,492	339,005	-	-	-	-	1,671,361
7	-	331,417	331,997	333,451	335,492	339,005	342,241	-	-	-	2,013,602
8	-	331,417	331,997	333,451	335,492	339,005	342,241	343,421	-	-	2,357,023
9	-	331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	-	2,701,923
10	-	331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
11	-	331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
12	-	331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
13	-	331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
14		331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
15	-	331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
16	-	331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
17		331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
18		331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
19		331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
20		331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
21	-	331,417	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,395,873
22		-	331,997	333,451	335,492	339,005	342,241	343,421	344,900	693,950	3,064,456
23			-	333,451	335,492	339,005	342,241	343,421	344,900	693,950	2,732,459
24		-	-	-	335,492	339,005	342,241	343,421	344,900	693,950	2,399,008
25			-	-	-	339,005	342,241	343,421	344,900	693,950	2,063,516
26	-	-	-	-	-	-	342,241	343,421	344,900	693,950	1,724,511
27		-	-	-	-	-	-	343,421	344,900	693,950	1,382,271
28		-	-	-	-	-	-	-	344,900	693,950	1,038,850
29		-	-	-	-	-	-	-	-	693,950	693,950
	\$ -	\$ 6,628,333 \$	6,639,945 \$	6,669,021 \$	6,709,834 \$	6,780,091 \$	6,844,813 \$	6,868,424 \$	6,897,995 \$	13,878,997 \$	67,917,452

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital enditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt <u>Proceeds<sup>(3)</sup></u>	Annual Credit <sup>(4)</sup>		Total <u>Expense</u>
1	\$ -	\$ 8,804,234	\$	\$ -	\$	\$ (10,535) \$	3	8,793,699
2	331,417	8,804,234	(4,402,117)	-		(21,020)		4,712,514
3	663,414	8,804,234	(4,402,117)	-		(31,454)		5,034,077
4	996,865	8,804,234	(4,402,117)	-		(41,839)		5,357,143
5	1,332,357	8,804,234	(4,402,117)	-		(52,175)		5,682,298
6	1,671,361	8,804,234	(4,402,117)	-		(62,462)		6,011,016
7	2,013,602	8,804,234	(4,402,117)	-		(72,701)		6,343,018
8	2,357,023	8,804,234	(4,402,117)	-		(82,891)		6,676,249
9	2,701,923	8,804,234	(4,402,117)	-		(93,033)		7,011,006
10	3,395,873	8,804,234	(8,804,234)	-		(103,128)		3,292,744
11	3,395,873	-	-	-		-		3,395,873
12	3,395,873	-	-	-		-		3,395,873
13	3,395,873	-	-	-		-		3,395,873
14	3,395,873	-	-	-		-		3,395,873
15	3,395,873	-	-	-		-		3,395,873
16	3,395,873	-	-	-		-		3,395,873
17	3,395,873	-	-	-		-		3,395,873
18	3,395,873	-	-	-		-		3,395,873
19	3,395,873	-	-	-		-		3,395,873
20	3,395,873	-	-	-		-		3,395,873
21	3,395,873	-	-	-		-		3,395,873
22	3,064,456	-	-	-		-		3,064,456
23	2,732,459	-	-	-		-		2,732,459
24	2,399,008	-	-	-		-		2,399,008
25	2,063,516	-	-	-		-		2,063,516
26	1,724,511	-	-	-		-		1,724,511
27	1,382,271	-	-	-		-		1,382,271
28	1,038,850	-	-	-		-		1,038,850
29	 693,950	-	-	-		-		693,950
	\$ 67,917,452	\$ 88,042,341	\$ (44,021,171)	\$ -	\$ -	\$ (571,240) \$	3	111,367,383

<sup>(1)</sup> Appendix E - Service Area C, Page 2
(2) Appendix E - Service Area C, Page 1
(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area C

		Future Value	Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Serv	vice Units		Annual E	хр	ense
<u>Year</u>	<b>End of Period</b>	<u>Factor</u>	<u>Factor</u>	<u>Actual</u>	<b>Escalated</b>		<u>Actual</u>	-	<b>Escalated</b>
1	29	1.2855	1.0000	7,791	10,015	\$	8,793,699	\$	11,304,045
2	28	1.2742	1.0000	7,791 7,791	9,927	Ψ	4,712,514	Ψ	6,004,659
3	27	1.2630	1.0000	7,791 7,791	9,840		5,034,077		6,358,122
4	26	1.2519	1.0000	7,791 7,791	9,753		5,357,143		6,706,805
5	25	1.2410	1.0000	7,791	9,668		5,682,298		7,051,474
6	24	1.2301	1.0000	7,791 7,791	9,583		6,011,016		7,393,961
7	23	1.2193	1.0000	7,791 7,791	9,499		6,343,018		7,733,901
8	22	1.2086	1.0000	7,791 7,791	9,416		6,676,249		8,068,794
9	21	1.1980	1.0000	7,791 7,791	9,333		7,011,006		8,399,044
10	20	1.1875	1.0000	7,791 7,791	9,251		3,292,744		3,910,037
11	19	1.1771	1.0000	-	-		3,395,873		3,997,124
12	18	1.1667	1.0000	_	_		3,395,873		3,962,060
13	17	1.1565	1.0000	_	_		3,395,873		3,927,304
14	16	1.1463	1.0000	_	_		3,395,873		3,892,852
15	15	1.1363	1.0000	_	_		3,395,873		3,858,702
16	14	1.1263	1.0000	_	_		3,395,873		3,824,852
17	13	1.1164	1.0000	_	_		3,395,873		3,791,299
18	12	1.1066	1.0000	_	_		3,395,873		3,758,041
19	11	1.0969	1.0000	_	_		3,395,873		3,725,074
20	10	1.0873	1.0000	_	_		3,395,873		3,692,396
21	9	1.0778	1.0000	_	_		3,395,873		3,660,005
22	8	1.0683	1.0000	_	_		3,064,456		3,273,837
23	7	1.0590	1.0000	_	_		2,732,459		2,893,548
24	6	1.0497	1.0000	_	_		2,399,008		2,518,153
25	5	1.0405	1.0000	-	-		2,063,516		2,146,999
26	4	1.0313	1.0000	-	-		1,724,511		1,778,539
27	3	1.0223	1.0000	-	-		1,382,271		1,413,071
28	2	1.0133	1.0000	-	-		1,038,850		1,052,681
29	1	1.0044	1.0000	-	-		693,950		697,021
					96,284			\$	130,794,400
		Annual Interest Ra	te:				0.89%		
		Present Value of Ir	nitial Impact Fee I	Fund Balance	;	\$	2,630,961		
		Total Escalated Ex				\$	130,794,400		
		Less Future Value Sub-Total	of Initial Impact F	ee Fund Balance		\$	3,396,923 127,397,476		
		Total Escalated Se	ervice Units				96,284		
		Impact Fee for Se	rvice Area C		;	\$	1,323		

### Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area C

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>		Annual Expenses		<u>Sub-Total</u>	Accumulated Interest			Estimated Fund <u>Balance</u>
Initial										\$	2,630,961
1	\$ 1,323	\$ 7,791	\$ 10,308,113	\$	8,793,699	\$	1,514,414	\$	29,985		4,175,360
2	1,323	7,791	10,308,113		4,712,514		5,595,599		61,712		9,832,672
3	1,323	7,791	10,308,113		5,034,077		5,274,037		110,357		15,217,065
4	1,323	7,791	10,308,113		5,357,143		4,950,971		156,579		20,324,615
5	1,323	7,791	10,308,113		5,682,298		4,625,815		200,342		25,150,772
6	1,323	7,791	10,308,113		6,011,016		4,297,097		241,599		29,689,468
7	1,323	7,791	10,308,113		6,343,018		3,965,095		280,297		33,934,861
8	1,323	7,791	10,308,113		6,676,249		3,631,864		316,395		37,883,120
9	1,323	7,791	10,308,113		7,011,006		3,297,107		349,855		41,530,082
10	1,323	7,791	10,308,113		3,292,744		7,015,369		398,584		48,944,035
11	-	-	-		3,395,873		(3,395,873)		418,128		45,966,290
12	-	-	-		3,395,873		(3,395,873)		391,775		42,962,193
13	-	-	-		3,395,873		(3,395,873)		365,189		39,931,509
14	-	-	-		3,395,873		(3,395,873)		338,367		36,874,003
15	-	-	-		3,395,873		(3,395,873)		311,308		33,789,439
16	-	-	-		3,395,873		(3,395,873)		284,010		30,677,576
17	-	-	-		3,395,873		(3,395,873)		256,470		27,538,173
18	-	-	-		3,395,873		(3,395,873)		228,686		24,370,987
19	-	-	-		3,395,873		(3,395,873)		200,656		21,175,771
20	-	-	-		3,395,873		(3,395,873)		172,379		17,952,277
21	-	-	-		3,395,873		(3,395,873)		143,851		14,700,255
22	-	-	-		3,064,456		(3,064,456)		116,537		11,752,336
23	-	-	-		2,732,459		(2,732,459)		91,917		9,111,795
24	-	-	-		2,399,008		(2,399,008)		70,024		6,782,811
25	-	-	-		2,063,516		(2,063,516)		50,897		4,770,191
26	-	-	-		1,724,511		(1,724,511)		34,585		3,080,265
27	-	-	-		1,382,271		(1,382,271)		21,144		1,719,138
28	-	-	-		1,038,850		(1,038,850)		10,617		690,906
29	-	-	 <u>-</u>		693,950	_	(693,950)		3,044		0
			\$ 103,081,132	\$11	1,367,383	•		\$	5,655,290	•	

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area C

Impact Fee Project Name <sup>(1)</sup>	Impact Fee Project No. <sup>(1)</sup>	Cost in Service Area <sup>(1)</sup>	Impact Fee Recoverable Cost <sup>(2)</sup>		Debt Funded <sup>(3)</sup> Existing Proposed		Impact Fee Recoverable Cost
impact i ee i roject Name	i roject No.	Service Area	Necoverable cost	LXISTING	roposeu	Funded <sup>(3)</sup>	Necoverable cost
Bonds Ranch Rd. (1)	C-1	\$ 579,000	\$ 505,591	\$ -	\$ 252,796	\$ 252,796	\$ 505,591
Bonds Ranch Rd. (2)	C-2	10,340,000	9,029,038	-	4,514,519	4,514,519	9,029,038
Bonds Ranch Rd. (3)	C-3	7,368,000	6,433,845	-	3,216,922	3,216,922	6,433,845
Golden Triangle Blvd. (1)	C-4	1,635,000	1,427,706	-	713,853	713,853	1,427,706
Golden Triangle Blvd. (2)	C-5	1,565,000	1,366,581	-	683,290	683,290	1,366,581
Heritage Trace Pkwy. (3)	C-6	12,315,000	10,753,637	-	5,376,819	5,376,819	10,753,637
Heritage Trace Pkwy. (4)	C-7	9,972,000	8,707,695	-	4,353,848	4,353,848	8,707,695
Heritage Trace Pkwy. (5)	C-8	1,561,000	1,363,088	-	681,544	681,544	1,363,088
N. Tarrant Pkwy. (1)	C-9	9,779,000	8,539,165	-	4,269,583	4,269,583	8,539,165
Bailey Boswell Rd. (3)	C-10	5,670,000	4,951,126	-	2,475,563	2,475,563	4,951,126
Basswood Blvd. (1)	C-11, F-1	332,000	289,907	-	144,954	144,954	289,907
Basswood Blvd. (2)	C-12, F-2	3,024,000	2,640,601	-	1,320,300	1,320,300	2,640,601
Basswood Blvd. (3)	C-13, F-3	530,500	463,240	-	231,620	231,620	463,240
Wagley Robertson Rd. (1)	B-24, C-14	3,533,500	3,085,504	-	1,542,752	1,542,752	3,085,504
Wagley Robertson Rd. (2)	C-15	276,000	241,007	-	120,504	120,504	241,007
Wagley Robertson Rd. (3)	C-16	765,500	668,446	-	334,223	334,223	668,446
Wagley Robertson Rd. (4)	C-17, E-13	2,544,000	2,221,458	-	1,110,729	1,110,729	2,221,458
Wagley Robertson Rd. (5)	C-18	3,638,000	3,176,755	-	1,588,377	1,588,377	3,176,755
Wagley Robertson Rd. (6)	C-19, E-14	511,500	446,649	-	223,325	223,325	446,649
Harmon Rd. (1)	C-20	2,986,000	2,607,419	-	1,303,709	1,303,709	2,607,419
Harmon Rd. (2)	C-21	794,000	693,332	-	346,666	346,666	693,332
Harmon Rd. (3)	C-22	825,000	720,402	-	360,201	360,201	720,402
Harmon Rd. (4)	C-23	2,938,000	2,565,504	-	1,282,752	1,282,752	2,565,504
Harmon Rd. (5)	C-24	3,764,000	3,286,780	-	1,643,390	1,643,390	3,286,780
Harmon Rd. (6)	C-25	5,040,000	4,401,001	-	2,200,501	2,200,501	4,401,001
Harmon Rd. (7)	C-26	1,449,000	1,265,288	-	632,644	632,644	1,265,288
Harmon Rd. (8)	C-27	5,828,000	5,089,094	-	2,544,547	2,544,547	5,089,094
Horseman Rd.	C-28	1,237,000	1,080,166	-	540,083	540,083	1,080,166
2013 Transportation Impact Fee Study		25,555	22,315		11,157	11,157	22,315
	Total	\$ 100,825,555	\$ 88,042,341	\$ -	\$ 44,021,171	\$ 44,021,171	\$ 88,042,341

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area C

2012 Population (All Service Areas) <sup>(1)</sup>	767,810	
Ten Year Growth in Population (Service Area C) <sup>(2)</sup>	18,419	
Annual Growth in Population	10 1,842	years

		1	2		3	4		5	6	7	8	9	10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 4	1,402,117	\$ 4,402	)2,117 \$	3 4,402,117	\$ 4,40	2,117	\$ 4,402,117	\$ 4,402,117	\$ 4,402,117	\$ 4,402,117	\$ 4,402,117	\$ 4,402,117	\$ 44,021,171
Population (All Service Areas)		769,652	77	1,494	773,336	77	5,178	777,019	778,861	780,703	782,545	784,387	786,229	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	5.72	\$	5.71 \$	5.69	\$	5.68	\$ 5.67	\$ 5.65	\$ 5.64	\$ 5.63	\$ 5.61	\$ 5.60	
Annual Growth in Service Area C Population (Cumulative)		1,842	;	3,684	5,526		7,368	9,209	11,051	12,893	14,735	16,577	18,419	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	10,535	\$ 2	1,020 \$	31,454	\$ 4	1,839	\$ 52,175	\$ 62,462	\$ 72,701	\$ 82,891	\$ 93,033	\$ 103,128	\$ 571,240

571,240

(1) Estimated 2012 Population as of July 18, 2012

Credit Amount

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees Impact Fee Calculation Assumptions Appendix E - Service Area D

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	7,621
Existing Fund Balance (3)	\$ 2,219,167
Portion of Projects Funded by Existing Debt (4)	\$ 14,208,383
Non-debt Funded Project Cost (4)	24,678,888
Project Cost Funded Through New Debt (4)	24,678,888
Total Recoverable Project Cost (5)	\$ 63,566,158

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>			
1	\$ -	4.25%	20			
2	2,467,889	4.26%	20			
3	2,467,889	4.28%	20			
4	2,467,889	4.33%	20			
5	2,467,889	4.40%	20			
6	2,467,889	4.52%	20			
7	2,467,889	4.63%	20			
8	2,467,889	4.67%	20			
9	2,467,889	4.72%	20			
10	4,935,778	4.79%	20			
Total	\$ 24,678,888					

### III. Capital Expenditure Assumptions

		Annual Capital					
<u>Year</u>	<u>Ex</u> p	oenditures <sup>(8)</sup>					
4	\$	0.050.040					
1	Ф	6,356,616					
2		6,356,616					
3		6,356,616					
4	6,356,616						
5		6,356,616					
6		6,356,616					
7		6,356,616					
8		6,356,616					
9		6,356,616					
10		6,356,616					
Total	\$	63,566,158					

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area D

#### I. New Debt Service Detail

<u>Year</u>	Series	Series	Series	Series <u>4</u>	Series <u>5</u>	Series	Series <u>7</u>	Series 8	Series	Series	Total Annual New Debt <u>Service</u>
1	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2	-	185,797	-	-	-	-	-	-	-	-	185,797
3	-	185,797	186,122	-	-	-	-	-	-	-	371,919
4	-	185,797	186,122	186,937	-	-	-	-	-	-	558,857
5	-	185,797	186,122	186,937	188,081	-	-	-	-	-	746,938
6	-	185,797	186,122	186,937	188,081	190,051	-	-	-	-	936,989
7	-	185,797	186,122	186,937	188,081	190,051	191,865	-	-	-	1,128,854
8	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	-	-	1,321,380
9	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	-	1,514,736
10	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
11	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
12	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
13	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
14	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
15	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
16	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
17	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
18	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
19	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
20	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
21	-	185,797	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,903,774
22	-	-	186,122	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,717,977
23	-	-	-	186,937	188,081	190,051	191,865	192,527	193,356	389,038	1,531,855
24	-	-	-		188,081	190,051	191,865	192,527	193,356	389,038	1,344,917
25	-	-	-		-	190,051	191,865	192,527	193,356	389,038	1,156,836
26	-	-	-	-	-	-	191,865	192,527	193,356	389,038	966,785
27	-	-	-	-	-	-	-	192,527	193,356	389,038	774,920
28	-	-	-		-		-	-	193,356	389,038	582,394
29		-	-	-	-	-	-	-	-	389,038	389,038
	\$ -	\$ 3,715,937 \$	3,722,447 \$	3,738,747 \$	3,761,627 \$	3,801,014 \$	3,837,298 \$	3,850,535 \$	3,867,113 \$	7,780,761 \$	38,075,479

Funding

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Exp	Annual Capital cenditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	from Existing Debt Proceeds (3)	Annual <u>Credit<sup>(4)</sup></u>	Total <u>Expense</u>
1	\$ -	\$	6,356,616	\$	\$ 1,187,197	\$ (11,325,398) \$	(1,392)	\$ (3,782,977)
2	185,797		6,356,616	(2,467,889)	1,117,047		(2,783)	5,188,788
3	371,919		6,356,616	(2,467,889)	1,093,804		(4,172)	5,350,278
4	558,857		6,356,616	(2,467,889)	1,068,679		(5,559)	5,510,703
5	746,938		6,356,616	(2,467,889)	1,044,034		(6,945)	5,672,754
6	936,989		6,356,616	(2,467,889)	1,008,317		(8,330)	5,825,704
7	1,128,854		6,356,616	(2,467,889)	983,652		(9,712)	5,991,520
8	1,321,380		6,356,616	(2,467,889)	760,702		(11,094)	5,959,716
9	1,514,736		6,356,616	(2,467,889)	737,229		(12,473)	6,128,218
10	1,903,774		6,356,616	(4,935,778)	717,204		(13,851)	4,027,965
11	1,903,774		-	-	697,225		-	2,600,999
12	1,903,774		-	-	677,246		-	2,581,020
13	1,903,774		-	-	657,267		-	2,561,041
14	1,903,774		-	-	637,288		-	2,541,062
15	1,903,774		-	-	616,986		-	2,520,760
16	1,903,774		-	-	596,800		-	2,500,574
17	1,903,774		-	-	307,575		-	2,211,349
18	1,903,774		-	-	300,128		-	2,203,902
19	1,903,774		-	-	-		-	1,903,774
20	1,903,774		-	-	-		-	1,903,774
21	1,903,774		-	-	-		-	1,903,774
22	1,717,977		-	-	-		-	1,717,977
23	1,531,855		-	-	-		-	1,531,855
24	1,344,917		-	-	-		-	1,344,917
25	1,156,836		-	-	-		-	1,156,836
26	966,785		-	-	-		-	966,785
27	774,920		-	-	-		-	774,920
28	582,394		-	-	-		-	582,394
29	 389,038		-	-	-		-	389,038
	\$ 38,075,479	\$	63,566,158	\$ (24,678,888)	\$ 14,208,383	\$ (11,325,398) \$	(76,311)	\$ 79,769,424

<sup>(1)</sup> Appendix E - Service Area D, Page 2
(2) Appendix E - Service Area D, Page 1
(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area D, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area D

		Future Value	e Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vice Units		Annual E	Expe	ense
<u>Year</u>	End of Period	Factor	Factor	Actual	Escalated	Ad	ctual		Escalated
				·	<u> </u>			•	
1	29	1.2855	1.0000	7,621	9,796	\$ (3	3,782,977)	\$	(4,862,907)
2	28	1.2742	1.0000	7,621	9,710	į	5,188,788		6,611,524
3	27	1.2630	1.0000	7,621	9,625	į	5,350,278		6,757,490
4	26	1.2519	1.0000	7,621	9,541	į	5,510,703		6,899,053
5	25	1.2410	1.0000	7,621	9,457		5,672,754		7,039,630
6	24	1.2301	1.0000	7,621	9,374		5,825,704		7,166,014
7	23	1.2193	1.0000	7,621	9,292		5,991,520		7,305,328
8	22	1.2086	1.0000	7,621	9,210		5,959,716		7,202,805
9	21	1.1980	1.0000	7,621	9,129	(	6,128,218		7,341,481
10	20	1.1875	1.0000	7,621	9,049	4	4,027,965		4,783,090
11	19	1.1771	1.0000	-	-	2	2,600,999		3,061,516
12	18	1.1667	1.0000	-	-	2	2,581,020		3,011,349
13	17	1.1565	1.0000	-	-	2	2,561,041		2,961,827
14	16	1.1463	1.0000	-	-	2	2,541,062		2,912,942
15	15	1.1363	1.0000	-	-	2	2,520,760		2,864,319
16	14	1.1263	1.0000	-	-	2	2,500,574		2,816,456
17	13	1.1164	1.0000	-	-	2	2,211,349		2,468,846
18	12	1.1066	1.0000	-	-	2	2,203,902		2,438,947
19	11	1.0969	1.0000	-	-	•	1,903,774		2,088,329
20	10	1.0873	1.0000	-	-	•	1,903,774		2,070,009
21	9	1.0778	1.0000	-	-	•	1,903,774		2,051,850
22	8	1.0683	1.0000	-	-	•	1,717,977		1,835,359
23	7	1.0590	1.0000	-	-	•	1,531,855		1,622,164
24	6	1.0497	1.0000	-	-	•	1,344,917		1,411,712
25	5	1.0405	1.0000	-	-	•	1,156,836		1,203,638
26	4	1.0313	1.0000	-	-		966,785		997,074
27	3	1.0223	1.0000	-	-		774,920		792,187
28	2	1.0133	1.0000	-	-		582,394		590,148
29	1	1.0044	1.0000	-			389,038		390,760
					94,184			\$	93,832,942
		Annual Interest Ra	ite:				0.89%		
		Present Value of I	nitial Impact Fee F	Fund Balance	:	\$ 2	2,219,167		
		Total Escalated Ex	roopee for Entire	Pariod		\$ 90°	2 022 042		
		Less Future Value	•				3,832,942		
		Sub-Total	or iriiliai iriipact F	GE I UIIU DAIAIIC			2,865,242 0,967,700	•	
		Sub-Total			•	ψ 3(	<i>5,301,10</i> 0		
		Total Escalated Se	ervice Units				94,184		
		Impact Fee for Se	ervice Area D		;	\$	966		

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area D

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>	Annual Expenses	Sub-Total	Accumulated <u>Interest</u>		Estimated Fund <u>Balance</u>
Initial							\$	2,219,167
1	\$ 966	\$ 7,621	\$ 7,360,470	\$ (3,782,977)	\$ 11,143,448	\$ 68,949		13,431,563
2	966	7,621	7,360,470	5,188,788	2,171,682	128,479		15,731,725
3	966	7,621	7,360,470	5,350,278	2,010,192	148,121		17,890,038
4	966	7,621	7,360,470	5,510,703	1,849,768	166,512		19,906,317
5	966	7,621	7,360,470	5,672,754	1,687,716	183,639		21,777,673
6	966	7,621	7,360,470	5,825,704	1,534,767	199,524		23,511,963
7	966	7,621	7,360,470	5,991,520	1,368,950	214,138		25,095,052
8	966	7,621	7,360,470	5,959,716	1,400,754	228,290		26,724,095
9	966	7,621	7,360,470	6,128,218	1,232,252	241,961		28,198,308
10	966	7,621	7,360,470	4,027,965	3,332,505	264,301		31,795,115
11	-	-	-	2,600,999	(2,600,999)	269,877		29,463,993
12	-	-	-	2,581,020	(2,581,020)	249,335		27,132,308
13	-	-	-	2,561,041	(2,561,041)	228,788		24,800,055
14	-	-	-	2,541,062	(2,541,062)	208,236		22,467,229
15	-	-	-	2,520,760	(2,520,760)	187,681		20,134,149
16	-	-	-	2,500,574	(2,500,574)	167,122		17,800,698
17	-	-	-	2,211,349	(2,211,349)	147,751		15,737,099
18	-	-	-	2,203,902	(2,203,902)	129,521		13,662,718
19	-	-	-	1,903,774	(1,903,774)	112,491		11,871,435
20	-	-	-	1,903,774	(1,903,774)	96,638		10,064,299
21	-	-	-	1,903,774	(1,903,774)	80,645		8,241,170
22	-	-	-	1,717,977	(1,717,977)	65,332		6,588,525
23	-	-	-	1,531,855	(1,531,855)	51,530		5,108,200
24	-	-	-	1,344,917	(1,344,917)	39,256		3,802,539
25	-	-	-	1,156,836	(1,156,836)	28,533		2,674,236
26	-	-	-	966,785	(966,785)	19,389		1,726,840
27	-	-	-	774,920	(774,920)	11,854		963,773
28	-	-	-	582,394	(582,394)	5,952		387,332
29	-	-	 <u>-</u>	389,038	(389,038)	1,706	_	(0)
			\$ 73,604,704	\$ 79,769,424		\$ 3,945,554		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area D

	Impact Fee	Cost in	Impact Fee	Debt Fu	Debt Funded <sup>(3)</sup>		Impact Fee	
Impact Fee Project Name(1)	Project No.(1)	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	Existing	Proposed	Non-Debt Funded <sup>(3)</sup>	Recoverable Cost	
Timberland Blvd. (1)	A-19, D-1	\$ 272,459		\$ -	\$ 85,992	\$ 85,992	\$ 171,984	
Timberland Blvd. (2)	A-20, D-2	985,000	621,761	-	310,881	310,881	621,761	
Timberland Blvd. (3)	A-21, D-3	785,500	495,831	-	247,915	247,915	495,831	
Timberland Blvd. (4)	D-4	2,129,000	1,343,888	-	671,944	671,944	1,343,888	
Timberland Blvd. (5)	A-22, D-5	347,500	219,352	-	109,676	109,676	219,352	
Keller Hicks Rd. (1)	D-6	5,292,000	3,340,468	-	1,670,234	1,670,234	3,340,468	
Keller Hicks Rd. (2)	D-7	1,071,577	676,411	220,924	227,744	227,744	676,411	
Keller Hicks Rd. (3)	D-8	1,304,000	823,124	268,842	277,141	277,141	823,124	
Keller Hicks Rd. (4)	D-9	5,176,000	3,267,245	-	1,633,623	1,633,623	3,267,245	
Golden Triangle Blvd. (3)	D-10	13,397,000	8,456,585	2,365,697	3,045,444	3,045,444	8,456,585	
Kroger Dr.	D-11	1,478,000	932,958	-	466,479	466,479	932,958	
N. Tarrant Pkwy. (2)	D-12	6,661,000	4,204,622	675,522	1,764,550	1,764,550	4,204,622	
Summerfields Blvd.	D-13	410,000	258,804	-	129,402	129,402	258,804	
Old Denton Rd. (2)	D-14	1,188,000	749,901	-	374,950	374,950	749,901	
Old Denton Rd. (3)	D-15	618,000	390,100	-	195,050	195,050	390,100	
Old Denton Rd. (4)	D-16	1,071,000	676,047	-	338,024	338,024	676,047	
N. Riverside Dr. (1)	D-17	736,000	464,585	-	232,293	232,293	464,585	
N. Riverside Dr. (2)	D-18	1,399,000	883,090	-	441,545	441,545	883,090	
N. Riverside Dr. (3)	D-19	950,000	599,668	-	299,834	299,834	599,668	
N. Riverside Dr. (4)	D-20	6,726,000	4,245,651	-	2,122,826	2,122,826	4,245,651	
N. Riverside Dr. (5)	D-21	2,824,000	1,782,593	-	891,296	891,296	1,782,593	
N. Riverside Dr. (6)	D-22	1,061,000	669,735	-	334,867	334,867	669,735	
N. Beach St. (4)	A-27, D-23	1,691,500	1,067,725	_	533,863	533,863	1,067,725	
N. Beach St. (5)	A-28, D-24	689,000	434,917	_	217,459	217,459	434,917	
N. Beach St. (6)	D-25	7,287,000	4,599,771	314,908	2,142,432	2,142,432	4,599,771	
N. Beach St. (7)	D-26	7,861,000	4,962,097	3,330,531	815,783	815,783	4,962,097	
N. Beach St. (8)	D-27	1,456,000	919,071	-	459,535	459,535	919,071	
N. Beach St. (9)	D-28	1,393,000	879,303	708,318	85,492	85,492	879,303	
N. Beach St. (10)	D-29	1,835,000	1,158,307	933,068	112,619	112,619	1,158,307	
N. Beach St. (11)	D-30	3,889,000	2,454,853	1,977,495	238,679	238,679	2,454,853	
N. Beach St. (12)	D-31	3,864,000	2,439,072	1,964,783	237,144	237,144	2,439,072	
N. Beach St. (13)	D-32	198,000	124,983	100,680	12,152	12,152	124,983	
Park Vista Blvd. (1)	D-33	1,240,000	782,725	-	391,362	391,362	782,725	
Park Vista Blvd. (1)	D-34	3,663,000	2,312,195	_	1,156,097	1,156,097	2,312,195	
Park Vista Blvd. (2)	D-35	4,151,000	2,620,235	_	1,310,117	1,310,117	2,620,235	
Ray White Rd. (1)	D-36	979,000	617,974	_	308,987	308,987	617,974	
Ray White Rd. (2)	D-37	1,033,500	652,376		326,188	326,188	652,376	
Ray White Rd. (3)	D-37 D-38	284,000	179,269	-	89,635	89,635	179,269	
Ray White Rd. (4)	D-39	381,500	240,814	116,331	62,242	62,242	240,814	
, ,	D-39 D-40		388,838	187,837	100,500	100,500	388,838	
Ray White Rd. (5)		616,000						
Ray White Rd. (6)	D-41	2,283,000	1,441,098	1,043,448	198,825	198,825	1,441,098	
2013 Transportation Impact Fee Study	Total	25,556 \$ 100,703,001	16,131	¢ 14 200 202	8,066	8,066	16,131	
	Total	\$ 100,702,091	\$ 63,566,158	\$ 14,208,383	\$ 24,678,888	\$ 24,678,888	\$ 63,566,158	

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area D

2012 Population (All Service Areas) <sup>(1)</sup>	767,810	
Ten Year Growth in Population (Service Area D) <sup>(2)</sup>	4,334	vears
Annual Growth in Population	433	years

		1		2		3	4		5		6	7	8	9		10	Total	
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 2,	467,889	\$ 2,4	467,889	\$ 2,	467,889	\$ 2,467	889	\$ 2,467,889	\$ 2,4	,467,889	\$ 2,467,889	\$ 2,467,889	\$ 2,467,889	\$ 2	2,467,889	\$ 24,678,888	
Population (All Service Areas)		768,243	7	768,677		769,110	769	544	769,977	7	770,410	770,844	771,277	771,710		772,144		
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	3.21	\$	3.21	\$	3.21	\$	3.21	\$ 3.21	\$	3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$	3.20		
Annual Growth in Service Area D Population (Cumulative)		433		867		1,300	1	734	2,167		2,600	3,034	3,467	3,900		4,334		
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	1,392	\$	2,783	\$	4,172	\$ 5	559	\$ 6,945	\$	8,330	\$ 9,712	\$ 11,094	\$ 12,473	\$	13,851	\$ 76,311	

76,311

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees Impact Fee Calculation Assumptions Appendix E - Service Area E

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	614
Existing Fund Balance (3)	\$ 760,031
Portion of Projects Funded by Existing Debt (4)	\$ 667,003
Non-debt Funded Project Cost (4)	6,912,351
Project Cost Funded Through New Debt (4)	6,912,351
Total Recoverable Project Cost (5)	\$ 14,491,704

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>			
1	\$ -	4.25%	20			
2	691,235	4.26%	20			
3	691,235	4.28%	20			
4	691,235	4.33%	20			
5	691,235	4.40%	20			
6	691,235	4.52%	20			
7	691,235	4.63%	20			
8	691,235	4.67%	20			
9	691,235	4.72%	20			
10	1,382,470	4.79%	20			
Total	\$ 6,912,351	_	_			

#### III. Capital Expenditure Assumptions

<u>Year</u>	Annual Capital <u>Expenditures <sup>(8)</sup></u>
1	\$ 1,449,170
2	1,449,170
3	1,449,170
4	1,449,170
5	1,449,170
6	1,449,170
7	1,449,170
8	1,449,170
9	1,449,170
10	1,449,170
Total	\$ 14,491,704

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area E

#### I. New Debt Service Detail

<u>Year</u>	Series 1	Series 2	Series <u>3</u>	Series <u>4</u>	Series <u>5</u>	Series	Series <u>7</u>	Series <u>8</u>	Series 9	Series 10	Total Annual New Debt <u>Service</u>
1	\$ -	\$ -	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2	-	52,040	-	-	-			-		-	52,040
3	-	52,040	52,131	-	-	-	-	-	-	-	104,171
4	-	52,040	52,131	52,360	-	-	-	-	-	-	156,531
5	-	52,040	52,131	52,360	52,680	-	-	-	-	-	209,211
6	-	52,040	52,131	52,360	52,680	53,232	-	-	-	-	262,443
7	-	52,040	52,131	52,360	52,680	53,232	53,740	-	-	-	316,182
8	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	-	-	370,108
9	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	-	424,265
10	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
11	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
12	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
13	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
14	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
15	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
16	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
17	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
18	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
19	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
20	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
21	-	52,040	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	533,231
22	-	-	52,131	52,360	52,680	53,232	53,740	53,925	54,157	108,966	481,191
23	-	-	-	52,360	52,680	53,232	53,740	53,925	54,157	108,966	429,060
24	-	-	-	-	52,680	53,232	53,740	53,925	54,157	108,966	376,700
25	-	-	-	-	-	53,232	53,740	53,925	54,157	108,966	324,020
26	-	-	-	-	-	-	53,740	53,925	54,157	108,966	270,789
27	-	-	-	-	-	-	-	53,925	54,157	108,966	217,049
28	-	-	-	-	-	-	-	-	54,157	108,966	163,124
29		-	-	-	-	-	-	-	-	108,966	108,966
	\$ -	\$ 1,040,803	\$ 1,042,626	\$ 1,047,192 \$	1,053,600 \$	1,064,632 \$	1,074,795 \$	1,078,503 \$	1,083,146 \$	2,179,326 \$	10,664,624

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	<u>Ex</u>	Annual Capital penditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	<u> </u>	Total Expense
1	\$ -	\$	1,449,170	\$ _	\$ 130,754	\$ (667,003)	\$ (128) \$	;	912,794
2	52,040		1,449,170	(691,235)	106,455		(256)		916,175
3	104,171		1,449,170	(691,235)	104,242		(384)		965,964
4	156,531		1,449,170	(691,235)	101,820		(512)		1,015,775
5	209,211		1,449,170	(691,235)	99,612		(640)		1,066,118
6	262,443		1,449,170	(691,235)	97,403		(768)		1,117,013
7	316,182		1,449,170	(691,235)	95,195		(896)		1,168,417
8	370,108		1,449,170	(691,235)	-		(1,024)		1,127,019
9	424,265		1,449,170	(691,235)	-		(1,151)		1,181,049
10	533,231		1,449,170	(1,382,470)	-		(1,279)		598,652
11	533,231		-	-	-		-		533,231
12	533,231		-	-	-		-		533,231
13	533,231		-	-	-		-		533,231
14	533,231		-	-	-		-		533,231
15	533,231		-	-	-		-		533,231
16	533,231		-	-	-		-		533,231
17	533,231		-	-	-		-		533,231
18	533,231		-	-	-		-		533,231
19	533,231		-	-	-		-		533,231
20	533,231		-	-	-		-		533,231
21	533,231		-	-	-		-		533,231
22	481,191		-	-	-		-		481,191
23	429,060		-	-	-		-		429,060
24	376,700		-	-	-		-		376,700
25	324,020		-	-	-		-		324,020
26	270,789		-	-	-		-		270,789
27	217,049		-	-	-		-		217,049
28	163,124		-	-	-		-		163,124
29	 108,966		-	-	-		-		108,966
	\$ 10,664,624	\$	14,491,704	\$ (6,912,351)	\$ 735,482	\$ (667,003)	\$ (7,039) \$	; —	18,305,418

<sup>(1)</sup> Appendix E - Service Area E, Page 2
(2) Appendix E - Service Area E, Page 1
(3) Eligible outstanding delt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area E, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area E

		Future Value	Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vice Units		Annual E	Expe	ense
<u>Year</u>	End of Period	Factor	Factor	Actual	Escalated		Actual	-	Escalated
1	29	1.2855	1.0000	614	789	\$	912,794	\$	1,173,370
2	28	1.2742	1.0000	614	782		916,175		1,167,384
3	27	1.2630	1.0000	614	775		965,964		1,220,029
4	26	1.2519	1.0000	614	769		1,015,775		1,271,686
5	25	1.2410	1.0000	614	762		1,066,118		1,323,004
6	24	1.2301	1.0000	614	755		1,117,013		1,374,003
7	23	1.2193	1.0000	614	749		1,168,417		1,424,625
8	22	1.2086	1.0000	614	742		1,127,019		1,362,095
9	21	1.1980	1.0000	614	735		1,181,049		1,414,873
10	20	1.1875	1.0000	614	729		598,652		710,882
11	19	1.1771	1.0000	-	-		533,231		627,642
12	18	1.1667	1.0000	-	-		533,231		622,136
13	17	1.1565	1.0000	-	-		533,231		616,678
14	16	1.1463	1.0000	-	-		533,231		611,269
15	15	1.1363	1.0000	-	-		533,231		605,906
16	14	1.1263	1.0000	-	-		533,231		600,591
17	13	1.1164	1.0000	-	-		533,231		595,322
18	12	1.1066	1.0000	-	-		533,231		590,100
19	11	1.0969	1.0000	-	-		533,231		584,923
20	10	1.0873	1.0000	-	-		533,231		579,792
21	9	1.0778	1.0000	-	-		533,231		574,706
22	8	1.0683	1.0000	-	-		481,191		514,069
23	7	1.0590	1.0000	-	-		429,060		454,355
24	6	1.0497	1.0000	-	-		376,700		395,409
25	5	1.0405	1.0000	-	-		324,020		337,129
26	4	1.0313	1.0000	-	-		270,789		279,272
27	3	1.0223	1.0000	-	-		217,049		221,885
28	2	1.0133	1.0000	-	-		163,124		165,295
29	1	1.0044	1.0000	-	-		108,966		109,448
					7,587			\$	21,527,879
		Annual Interest Ra	te:				0.89%		
		Present Value of I	nitial Impact Fee F	Fund Balance		\$	760,031		
		Tatal Facilities 15		Daniant		Φ	04 507 070		
		Total Escalated Ex			_	\$	21,527,879		
		Less Future Value	of Initial Impact F	ee Fund Balance	<del>-</del>	Φ	981,302		
		Sub-Total				\$	20,546,577		
		Total Escalated Se	ervice Units				7,587		
		Impact Fee for Se	rvice Area E			\$	2,708		

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area E

<u>Year</u>	Impact Service <u>Fee</u> <u>Units</u>		Impact Fee <u>Revenue</u>	<u>!</u>	Annual Expenses		<u>Sub-Total</u>		Accumulated <u>Interest</u>		Estimated Fund <u>Balance</u>	
Initial											\$	760,031
1	\$	2,708	\$ 614	\$ 1,662,485	\$	912,794	\$	749,692	\$	10,044		1,519,767
2		2,708	614	1,662,485		916,175		746,311		16,752		2,282,830
3		2,708	614	1,662,485		965,964		696,521		23,285		3,002,636
4		2,708	614	1,662,485		1,015,775		646,711		29,435		3,678,782
5		2,708	614	1,662,485		1,066,118		596,367		35,196		4,310,345
6		2,708	614	1,662,485		1,117,013		545,472		40,560		4,896,377
7		2,708	614	1,662,485		1,168,417		494,069		45,519		5,435,965
8		2,708	614	1,662,485		1,127,019		535,466		50,478		6,021,909
9		2,708	614	1,662,485		1,181,049		481,436		55,424		6,558,770
10		2,708	614	1,662,485		598,652		1,063,833		62,753		7,685,355
11		-	-	-		533,231		(533,231)		65,656		7,217,780
12		-	-	-		533,231		(533,231)		61,518		6,746,066
13		-	-	-		533,231		(533,231)		57,343		6,270,178
14		-	-	-		533,231		(533,231)		53,132		5,790,079
15		-	-	-		533,231		(533,231)		48,883		5,305,730
16		-	-	-		533,231		(533,231)		44,596		4,817,095
17		-	-	-		533,231		(533,231)		40,272		4,324,136
18		-	-	-		533,231		(533,231)		35,909		3,826,813
19		-	-	-		533,231		(533,231)		31,508		3,325,090
20		-	-	-		533,231		(533,231)		27,067		2,818,926
21		-	-	-		533,231		(533,231)		22,588		2,308,283
22		-	-	-		481,191		(481,191)		18,299		1,845,391
23		-	-	-		429,060		(429,060)		14,433		1,430,764
24		-	-	-		376,700		(376,700)		10,995		1,065,059
25		-	-	-		324,020		(324,020)		7,992		749,031
26		-	-	-		270,789		(270,789)		5,431		483,673
27		-	-	-		217,049		(217,049)		3,320		269,945
28		-	-	-		163,124		(163,124)		1,667		108,488
29		-	-	 -		108,966		(108,966)		478		0
				\$ 16,624,854	\$	18,305,418			\$	920,533		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area E

Impact Fee Project Name <sup>(1)</sup>	Impact Fee Project No. <sup>(1)</sup>	<u>Se</u>	Cost in ervice Area <sup>(1)</sup>	Re	Impact Fee ecoverable Cost <sup>(2)</sup>	• (0)			Debt Funded <sup>(3)</sup> <u>Existing</u> <u>Proposed</u>				Impact Fee Recoverable Cost		
Heritage Trace Pkwy. (1)	E-1	\$	9,999,000	\$	1,630,251	\$	-	\$	815,126	\$	815,126	\$	1,630,251		
Heritage Trace Pkwy. (2)	E-2		10,772,000		1,756,283		-		878,141		878,141		1,756,283		
Park Dr. (1)	E-3		5,053,000		823,848		-		411,924		411,924		823,848		
Park Dr. (2)	E-4		351,000		57,228		-		28,614		28,614		57,228		
Park Dr. (3)	E-5		3,699,000		603,090		-		301,545		301,545		603,090		
Robertson Rd.	E-6		4,155,000		677,437		-		338,719		338,719		677,437		
Lake Country Dr. (1)	E-7		2,817,000		459,288		459,288		-		-		459,288		
Lake Country Dr. (2)	E-8		1,274,000		207,715		207,715		-		-		207,715		
W J Boaz Rd.	E-9, G-1		5,675,500		925,342		-		462,671		462,671		925,342		
Boat Club Rd.	E-10		21,254,000		3,465,283		-		1,732,642		1,732,642		3,465,283		
Old Decatur Rd. (1)	E-11		718,000		117,064		-		58,532		58,532		117,064		
Willow Springs Rd.	E-12		8,803,000		1,435,254		-		717,627		717,627		1,435,254		
Wagley Robertson Rd. (4)	C-17, E-13		2,544,000		414,777		-		207,389		207,389		414,777		
Wagley Robertson Rd. (6)	C-19, E-14		511,500		83,396		-		41,698		41,698		83,396		
Bailey Boswell Rd. (1)	E-15		1,224,000		199,563		-		99,781		99,781		199,563		
Bailey Boswell Rd. (2)	E-16		10,008,000		1,631,719		-		815,859		815,859		1,631,719		
2013 Transportation Impact Fee			25,555		4,167		-		2,083		2,083		4,167		
	Total	\$	88,883,555	\$	14,491,704	\$	667,003	\$	6,912,351	\$	6,912,351	\$	14,491,704		

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

### City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area E

2012 Population (All Service Areas) <sup>(1)</sup>	767,810
Ten Year Growth in Population (Service Area $\mathrm{E})^{(2)}$	1,423 10 vears
Annual Growth in Population	142 years

	1	2		3	4	5	6	7	8	9	10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 691,235 \$	691	1,235 \$	691,235	\$ 691,235	\$ 691,235 \$	691,235 \$	691,235 \$	691,235 \$	691,235	\$ 691,235	\$ 6,912,351
Population (All Service Areas)	767,952	768	8,095	768,237	768,379	768,522	768,664	768,806	768,949	769,091	769,233	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$ 0.90 \$		0.90 \$	0.90	\$ 0.90	\$ 0.90 \$	0.90 \$	0.90 \$	0.90 \$	0.90	\$ 0.90	
Annual Growth in Service Area E Population (Cumulative)	142		285	427	569	712	854	996	1,139	1,281	1,423	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$ 128 \$		256 \$	384	\$ 512	\$ 640 \$	768 \$	896 \$	1,024 \$	1,151	\$ 1,279	\$ 7,039

7,039

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area F

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	3,207
Existing Fund Balance (3)	\$ 1,711,683
Portion of Projects Funded by Existing Debt (4)	\$ 588,636
Non-debt Funded Project Cost (4)	13,719,594
Project Cost Funded Through New Debt (4)	13,719,594
Total Recoverable Project Cost (5)	\$ 28,027,823

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	1,371,959	4.26%	20
3	1,371,959	4.28%	20
4	1,371,959	4.33%	20
5	1,371,959	4.40%	20
6	1,371,959	4.52%	20
7	1,371,959	4.63%	20
8	1,371,959	4.67%	20
9	1,371,959	4.72%	20
10	2,743,919	4.79%	20
Total	\$ 13,719,594	·	·

#### III. Capital Expenditure Assumptions

	Annual Capital
<u>Year</u>	Expenditures (8)
1	\$ 2,802,782
2	2,802,782
3	2,802,782
4	2,802,782
5	2,802,782
6	2,802,782
7	2,802,782
8	2,802,782
9	2,802,782
10	2,802,782
Total	\$ 28,027,823

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area F

#### I. New Debt Service Detail

<u>Year</u>	Series <u>1</u>	Series 2	Series 3	Series	Series 5	Series	Series <u>7</u>	Series	Series	Series	Total Annual New Debt <u>Service</u>
1	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2	-	103,289	-	-	-	-	-	-	-	-	103,289
3	-	103,289	103,470	-	-	-	-	-	-	-	206,759
4	-	103,289	103,470	103,923	-	-	-	-	-	-	310,682
5	-	103,289	103,470	103,923	104,559	-	-	-	-	-	415,241
6	-	103,289	103,470	103,923	104,559	105,654	-	-		-	520,895
7	-	103,289	103,470	103,923	104,559	105,654	106,662	-	-	-	627,557
8	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	-	-	734,587
9	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	-	842,079
10	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
11	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
12	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
13	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
14	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
15	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
16	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
17	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
18	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
19	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
20	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
21	-	103,289	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	1,058,354
22	-	-	103,470	103,923	104,559	105,654	106,662	107,030	107,491	216,276	955,065
23	-	-	-	103,923	104,559	105,654	106,662	107,030	107,491	216,276	851,595
24	-	-	-	-	104,559	105,654	106,662	107,030	107,491	216,276	747,672
25	-	-	-	-	-	105,654	106,662	107,030	107,491	216,276	643,113
26	-	-	-	-	-	-	106,662	107,030	107,491	216,276	537,460
27	-	-	-	-	-	-	-	107,030	107,491	216,276	430,797
28	-	-	-	-	-	-	-	-	107,491	216,276	323,767
29	-	-	-	-	-	-	-	-	-	216,276	216,276
	\$ -	\$ 2,065,779 \$	2,069,399 \$	2,078,460 \$	2,091,180 \$	2,113,076 \$	2,133,247 \$	2,140,606 \$	2,149,822 \$	4,325,514 \$	21,167,085

#### II. Summary of Annual Expenses

Year	New Annual Debt <u>Service<sup>(1)</sup></u>	(	Annual Capital enditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual <u>Credit<sup>(4)</sup></u>	Ē	Total xpense
1	\$ -	\$	2,802,782	\$ -	\$ 38,198	\$ (485,825)	\$ (680) \$		2,354,476
2	103,289		2,802,782	(1,371,959)	37,658		(1,359)		1,570,411
3	206,759		2,802,782	(1,371,959)	37,118		(2,037)		1,672,663
4	310,682		2,802,782	(1,371,959)	36,443		(2,715)		1,775,233
5	415,241		2,802,782	(1,371,959)	35,768		(3,392)		1,878,440
6	520,895		2,802,782	(1,371,959)	35,093		(4,069)		1,982,742
7	627,557		2,802,782	(1,371,959)	34,418		(4,745)		2,088,054
8	734,587		2,802,782	(1,371,959)	33,743		(5,420)		2,193,734
9	842,079		2,802,782	(1,371,959)	33,069		(6,094)		2,299,876
10	1,058,354		2,802,782	(2,743,919)	32,394		(6,768)		1,142,843
11	1,058,354		-	-	31,719		-		1,090,073
12	1,058,354		-	-	31,044		-		1,089,398
13	1,058,354		-	-	30,369		-		1,088,723
14	1,058,354		-	-	29,694		-		1,088,048
15	1,058,354		-	-	28,988		-		1,087,342
16	1,058,354		-	-	28,314		-		1,086,668
17	1,058,354		-	-	27,640		-		1,085,994
18	1,058,354		-	-	26,966		-		1,085,320
19	1,058,354		-	-	-		-		1,058,354
20	1,058,354		-	-	-		-		1,058,354
21	1,058,354		-	-	-		-		1,058,354
22	955,065		-	-	-		-		955,065
23	851,595		-	-	-		-		851,595
24	747,672		-	-	-		-		747,672
25	643,113		-	-	-		-		643,113
26	537,460		-	-	-		-		537,460
27	430,797		-	-	-		-		430,797
28	323,767		-	-	-		-		323,767
29	 216,276		-	-	-		-		216,276
	\$ 21,167,085	\$	28,027,823	\$ (13,719,594)	\$ 588,636	\$ (485,825)	\$ (37,280) \$		35,540,845

<sup>(1)</sup> Appendix E - Service Area F, Page 2 (2) Appendix E - Service Area F, Page 1 (3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service (4) Appendix E - Service Area F, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area F

		Future Value	Escalation					
	Number of	Interest	Recovery					
	Years to	Rate	Fee	Annual Serv	vice Units	Annual E	Expen	ise
<u>Year</u>	End of Period	<u>Factor</u>	<u>Factor</u>	<u>Actual</u>	<b>Escalated</b>	<u>Actual</u>	<u>E</u>	<u>scalated</u>
1	29	1.2855	1.0000	3,207	4,122 \$	2,354,476	\$	3,026,610
2	28	1.2742	1.0000	3,207	4,086	1,570,411		2,001,009
3	27	1.2630	1.0000	3,207	4,050	1,672,663		2,112,601
4	26	1.2519	1.0000	3,207	4,014	1,775,233		2,222,480
5	25	1.2410	1.0000	3,207	3,979	1,878,440		2,331,058
6	24	1.2301	1.0000	3,207	3,944	1,982,742		2,438,908
7	23	1.2193	1.0000	3,207	3,910	2,088,054		2,545,918
8	22	1.2086	1.0000	3,207	3,875	2,193,734		2,651,307
9	21	1.1980	1.0000	3,207	3,841	2,299,876		2,755,205
10	20	1.1875	1.0000	3,207	3,808	1,142,843		1,357,093
11	19	1.1771	1.0000	-	-	1,090,073		1,283,074
12	18	1.1667	1.0000	-	-	1,089,398		1,271,031
13	17	1.1565	1.0000	-	-	1,088,723		1,259,101
14	16	1.1463	1.0000	-	-	1,088,048		1,247,282
15	15	1.1363	1.0000	-	-	1,087,342		1,235,538
16	14	1.1263	1.0000	-	-	1,086,668		1,223,940
17	13	1.1164	1.0000	-	-	1,085,994		1,212,451
18	12	1.1066	1.0000	-	-	1,085,320		1,201,069
19	11	1.0969	1.0000	-	-	1,058,354		1,160,953
20	10	1.0873	1.0000	-	-	1,058,354		1,150,768
21	9	1.0778	1.0000	-	-	1,058,354		1,140,674
22	8	1.0683	1.0000	-	-	955,065		1,020,321
23	7	1.0590	1.0000	-	-	851,595		901,800
24	6	1.0497	1.0000	-	-	747,672		784,805
25	5	1.0405	1.0000	-	-	643,113		669,131
26	4	1.0313	1.0000	-	-	537,460		554,298
27	3	1.0223	1.0000	-	-	430,797		440,396
28	2	1.0133	1.0000	-	-	323,767		328,078
29	1	1.0044	1.0000	-		216,276		217,233
					39,630		\$	41,744,131
		Annual Interest Ra	te:			0.89%		
		Present Value of Ir	nitial Impact Fee	Fund Balance	\$	1,711,683		
		Total Escalated Ex			\$	41,744,131		
		Less Future Value Sub-Total	of Initial Impact F	Fee Fund Balance	<u> </u>	2,210,012 39,534,119	•	
		Total Escalated Se	ervice Units			39,630		
		Impact Fee for Se			\$	998		
		impact ree for de	THE AIGH		Ψ	330		

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area F

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>		Annual Expenses		Sub-Total		Accumulated Interest		Estimated Fund <u>Balance</u>
Initial										\$	1,711,683
1	\$ 998	\$ 3,207	\$ 3,198,825	\$	2,354,476	\$	844,349	\$	18,885		2,574,916
2	998	3,207	3,198,825		1,570,411		1,628,414		29,994		4,233,324
3	998	3,207	3,198,825		1,672,663		1,526,162		44,218		5,803,704
4	998	3,207	3,198,825		1,775,233		1,423,592		57,662		7,284,958
5	998	3,207	3,198,825		1,878,440		1,320,385		70,315		8,675,657
6	998	3,207	3,198,825		1,982,742		1,216,082		82,161		9,973,900
7	998	3,207	3,198,825		2,088,054		1,110,771		93,184		11,177,855
8	998	3,207	3,198,825		2,193,734		1,005,091		103,372		12,286,317
9	998	3,207	3,198,825		2,299,876		898,949		112,712		13,297,978
10	998	3,207	3,198,825		1,142,843		2,055,981		126,785		15,480,744
11	-	-	-		1,090,073		(1,090,073)		132,181		14,522,852
12	-	-	-		1,089,398		(1,089,398)		123,707		13,557,161
13	-	-	-		1,088,723		(1,088,723)		115,163		12,583,601
14	-	-	-		1,088,048		(1,088,048)		106,550		11,602,103
15	-	-	-		1,087,342		(1,087,342)		97,867		10,612,628
16	-	-	-		1,086,668		(1,086,668)		89,113		9,615,073
17	-	-	-		1,085,994		(1,085,994)		80,288		8,609,367
18	-	-	-		1,085,320		(1,085,320)		71,390		7,595,437
19	-	-	-		1,058,354		(1,058,354)		62,536		6,599,619
20	-	-	-		1,058,354		(1,058,354)		53,723		5,594,989
21	-	-	-		1,058,354		(1,058,354)		44,832		4,581,467
22	-	-	-		955,065		(955,065)		36,320		3,662,721
23	-	-	-		851,595		(851,595)		28,647		2,839,773
24	-	-	-		747,672		(747,672)		21,824		2,113,924
25	-	-	-		643,113		(643,113)		15,862		1,486,673
26	-	-	-		537,460		(537,460)		10,779		959,992
27	-	-	-		430,797		(430,797)		6,590		535,785
28	-	-	-		323,767		(323,767)		3,309		215,327
29	-	-	 <u>-</u>		216,276		(216,276)		949		(0)
			\$ 31,988,245	\$	35,540,845			\$	1,840,917		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area F

	Impact Fee	Cost in	Impact Fee	Debt F	unded <sup>(3)</sup>	Non-Debt	Impact Fee		
Impact Fee Project Name <sup>(1)</sup>	Project No. <sup>(1)</sup>	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	<b>Existing</b>	Proposed	Funded <sup>(3)</sup>	Recoverable Cost		
Basswood Blvd. (1)	C-11, F-1	\$ 332,000	\$ 209,511	\$ -	\$ 104,756	\$ 104,756	\$ 209,511		
Basswood Blvd. (2)	C-12, F-2	3,024,000	1,908,318	-	954,159	954,159	1,908,318		
Basswood Blvd. (3)	C-13, F-3	530,500	334,776	-	167,388	167,388	334,776		
Western Center Blvd. (1)	F-4	636,000	401,353	-	200,676	200,676	401,353		
Western Center Blvd. (2)	F-5	974,000	614,650	-	307,325	307,325	614,650		
Western Center Blvd. (3)	F-6	304,000	191,841	-	95,921	95,921	191,841		
Western Center Blvd. (4)	F-7	364,000	229,705	-	114,852	114,852	229,705		
Western Center Blvd. (5)	F-8	1,208,000	762,317	-	381,159	381,159	762,317		
Cantrell Sansom Rd. (1)	F-9	1,748,000	1,103,089	-	551,544	551,544	1,103,089		
Cantrell Sansom Rd. (2)	F-10	760,000	479,604	-	239,802	239,802	479,604		
Cantrell Sansom Rd. (3)	F-11	481,000	303,539	-	151,769	151,769	303,539		
Cantrell Sansom Rd. (4)	F-12	1,941,000	1,224,883	-	612,441	612,441	1,224,883		
Cantrell Sansom Rd. (5)	F-13	1,059,000	668,290	-	334,145	334,145	668,290		
Northeast Pkwy.	F-14	1,232,000	777,463	-	388,731	388,731	777,463		
Meacham Blvd. (1)	F-15	1,693,000	1,068,380	-	534,190	534,190	1,068,380		
Meacham Blvd. (2)	F-16	2,520,000	1,590,265	-	795,132	795,132	1,590,265		
Meacham Blvd. (3)	F-17	1,741,000	1,098,671	-	549,336	549,336	1,098,671		
Long Ave Bridge	F-18	5,430,000	3,426,642	-	1,713,321	1,713,321	3,426,642		
Robert W. Downing Dr. (1)	F-19	1,045,000	659,455	-	329,728	329,728	659,455		
Robert W. Downing Dr. (2)	F-20	702,000	443,002	-	221,501	221,501	443,002		
Lone Star Blvd.	F-21	4,211,000	2,657,383	-	1,328,692	1,328,692	2,657,383		
Mark IV Pkwy.	F-22	2,144,000	1,352,987	-	676,494	676,494	1,352,987		
Old Denton Rd.	F-23	1,625,000	1,025,468	-	512,734	512,734	1,025,468		
Sylvania Ave.	F-24	1,580,000	997,071	-	498,535	498,535	997,071		
Riverside Dr. Bridge	F-25	6,000,000	3,786,345	588,636	1,598,855	1,598,855	3,786,345		
N. Beach St. (14)	F-26	1,104,000	696,687	-	348,344	348,344	696,687		
2013 Transportation Impact Fee		25,555	16,127	-	8,063	8,063	16,127		
	Total	\$ 44,414,055	\$ 28,027,823	\$ 588,636	\$ 13,719,594	\$ 13,719,594	\$ 28,027,823		

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

### City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area F

2012 Population (All Service Areas)<sup>(1)</sup>

Ten Year Growth in Population (Service Area F)<sup>(2)</sup>

3,807

10 years

Annual Growth in Population

381

		1		2	3		4		5	6		7	8	9		10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 1,3	371,959	\$ 1,3	371,959	\$ 1,371	959	\$ 1,371,959	9 \$	1,371,959	\$ 1,371	,959 \$	1,371,959	\$ 1,371,959	\$ 1,371,959	\$ 1	,371,959	\$ 13,719,594
Population (All Service Areas)	ī	68,191	7	768,571	768,	952	769,333	3	769,713	770	,094	770,475	770,855	771,236	i	771,617	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	1.79	\$	1.79	\$	1.78	\$ 1.78	3 \$	1.78	\$	1.78 \$	1.78	\$ 1.78	\$ 1.78	\$	1.78	
Annual Growth in Service Area F Population (Cumulative)		381		761	1,	142	1,523	3	1,903	2	,284	2,665	3,045	3,426	i	3,807	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	680	\$	1,359	\$ 2,	037	\$ 2,715	5 \$	3,392	\$ 4	,069 \$	4,745	\$ 5,420	\$ 6,094	\$	6,768	\$ 37,280

37,280

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees Impact Fee Calculation Assumptions Appendix E - Service Area G

#### I. General Assumptions

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>				
1	\$ -	4.25%	20				
2	2,781,915	4.26%	20				
3	2,781,915	4.28%	20				
4	2,781,915	4.33%	20				
5	2,781,915	4.40%	20				
6	2,781,915	4.52%	20				
7	2,781,915	4.63%	20				
8	2,781,915	4.67%	20				
9	2,781,915	4.72%	20				
10	5,563,829	4.79%	20				
Total	\$ 27,819,145	_	_				

#### III. Capital Expenditure Assumptions

	Annual Capital
<u>Year</u>	Expenditures (8)
1	\$ 5,563,829
2	5,563,829
3	5,563,829
4	5,563,829
5	5,563,829
6	5,563,829
7	5,563,829
8	5,563,829
9	5,563,829
10	5,563,829
Total	\$ 55,638,290

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area G

#### I. New Debt Service Detail

I. New I	Debt Service Detail										Total
Year	Series <u>1</u>	Series <u>2</u>	Series 3	Series	Series <u>5</u>	Series	Series 7	Series <u>8</u>	Series <u>9</u>	Series 10	Annual New Debt Service
1	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2	-	209,438	-	-	-	-	-	-	-	-	209,438
3	-	209,438	209,805	-	-	-	-	-	-	•	419,244
4	-	209,438	209,805	210,724		-	-	-	-	•	629,968
5	-	209,438	209,805	210,724	212,014	044.004	-	-	-	•	841,982
•	-	209,438	209,805	210,724	212,014	214,234	- 040.070	-	-	-	1,056,215
,	-	209,438	209,805 209.805	210,724	212,014 212.014	214,234	216,279 216,279	217.025	-	-	1,272,494
9	-	209,438 209,438	209,805	210,724 210,724	212,014	214,234 214,234	216,279	217,025	217,959	-	1,489,519 1,707,478
10	-	209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
11	-	209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
12	-	209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
13	-	209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
14	-	209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
15		209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
16	_	209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
17	_	209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
18		209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
19	_	209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
20	_	209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
21		209,438	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	2,146,019
22		,	209,805	210,724	212,014	214,234	216,279	217,025	217,959	438,541	1,936,581
23		_	,	210,724	212,014	214,234	216,279	217,025	217,959	438,541	1,726,775
24	_	-	-		212,014	214,234	216,279	217,025	217,959	438,541	1,516,051
25	-	-	-	-	-	214,234	216,279	217,025	217,959	438,541	1,304,037
26	-	-	-	-	_		216,279	217,025	217,959	438,541	1,089,804
27	-	-	-	-	_	_	-	217,025	217,959	438,541	873,525
28		-	-		-	-	-	-	217,959	438,541	656,500
29		-	-		-	-	-		-	438,541	438,541
	\$ -	\$ 4,188,770 \$	4,196,108 \$	4,214,483 \$	4,240,275 \$	4,284,673 \$	4,325,574 \$	4,340,495 \$	4,359,182 \$	8,770,822 \$	42,920,382

#### II. Summary of Annual Expenses

Year	New Annual Debt <u>Service<sup>(1)</sup></u>	Annual Capital enditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>	from Existing Debt Proceeds(3)	Annual Credit <sup>(4)</sup>	Total <u>Expense</u>
1	\$ -	\$ 5,563,829	\$ -	\$ -	\$ -	\$ (2,806)	\$ 5,561,023
2	209,438	5,563,829	(2,781,915)	-		(5,607)	2,985,746
3	419,244	5,563,829	(2,781,915)	-		(8,402)	3,192,756
4	629,968	5,563,829	(2,781,915)	-		(11,192)	3,400,691
5	841,982	5,563,829	(2,781,915)	-		(13,975)	3,609,921
6	1,056,215	5,563,829	(2,781,915)	-		(16,754)	3,821,376
7	1,272,494	5,563,829	(2,781,915)	-		(19,526)	4,034,882
8	1,489,519	5,563,829	(2,781,915)	-		(22,293)	4,249,140
9	1,707,478	5,563,829	(2,781,915)	-		(25,055)	4,464,337
10	2,146,019	5,563,829	(5,563,829)	-		(27,811)	2,118,208
11	2,146,019	-	-	-		-	2,146,019
12	2,146,019	-	-	-		-	2,146,019
13	2,146,019	-	-	-		-	2,146,019
14	2,146,019	-	-	-		-	2,146,019
15	2,146,019	-	-	-		-	2,146,019
16	2,146,019	-	-	-		-	2,146,019
17	2,146,019	-	-	-		-	2,146,019
18	2,146,019	-	-	-		-	2,146,019
19	2,146,019	-	-	-		-	2,146,019
20	2,146,019	-	-	-		-	2,146,019
21	2,146,019	-	-	-		-	2,146,019
22	1,936,581	-	-	-		-	1,936,581
23	1,726,775	-	-	-		-	1,726,775
24	1,516,051	-	-	-		-	1,516,051
25	1,304,037	-	-	-		-	1,304,037
26	1,089,804	-	-	-		-	1,089,804
27	873,525	-	-	-		-	873,525
28	656,500	-	-	-		-	656,500
29	 438,541	-	-	-		-	438,541
	\$ 42,920,382	\$ 55,638,290	\$ (27,819,145)	\$ -	\$ -	\$ (153,422)	\$ 70,586,105

<sup>(1)</sup> Appendix E - Service Area G, Page 2
(2) Appendix E - Service Area G, Page 1
(2) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area G, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area G

		Future Value	Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vice Units		Annual E	Exne	ense
Year	End of Period	Factor	Factor	Actual	Escalated	Actual			Escalated
<u>1 0 u.                                   </u>		<u> </u>	<u>r dotor</u>	<u> </u>	<u> </u>		7 totaar		<u> </u>
1	29	1.2855	1.0000	3,164	4,067	\$	5,561,023	\$	7,148,533
2	28	1.2742	1.0000	3,164	4,031		2,985,746		3,804,421
3	27	1.2630	1.0000	3,164	3,996		3,192,756		4,032,504
4	26	1.2519	1.0000	3,164	3,961		3,400,691		4,257,451
5	25	1.2410	1.0000	3,164	3,926		3,609,921		4,479,748
6	24	1.2301	1.0000	3,164	3,892		3,821,376		4,700,554
7	23	1.2193	1.0000	3,164	3,857		4,034,882		4,919,643
8	22	1.2086	1.0000	3,164	3,824		4,249,140		5,135,434
9	21	1.1980	1.0000	3,164	3,790		4,464,337		5,348,186
10	20	1.1875	1.0000	3,164	3,757		2,118,208		2,515,310
11	19	1.1771	1.0000	-	-		2,146,019		2,525,980
12	18	1.1667	1.0000	-	-		2,146,019		2,503,821
13	17	1.1565	1.0000	-	-		2,146,019		2,481,857
14	16	1.1463	1.0000	-	-		2,146,019		2,460,085
15	15	1.1363	1.0000	-	-		2,146,019		2,438,504
16	14	1.1263	1.0000	-	-		2,146,019		2,417,113
17	13	1.1164	1.0000	-	-		2,146,019		2,395,909
18	12	1.1066	1.0000	-	-		2,146,019		2,374,891
19	11	1.0969	1.0000	-	-		2,146,019		2,354,058
20	10	1.0873	1.0000	-	-		2,146,019		2,333,407
21	9	1.0778	1.0000	-	_		2,146,019		2,312,937
22	8	1.0683	1.0000	-	_		1,936,581		2,068,899
23	7	1.0590	1.0000	-	_		1,726,775		1,828,576
24	6	1.0497	1.0000	-	-		1,516,051		1,591,345
25	5	1.0405	1.0000	-	-		1,304,037		1,356,794
26	4	1.0313	1.0000	-	-		1,089,804		1,123,946
27	3	1.0223	1.0000	-	-		873,525		892,989
28	2	1.0133	1.0000	-	-		656,500		665,241
29	1	1.0044	1.0000	-	-		438,541		440,482
					39,100			\$	82,908,614
		Annual Interest Ra	te:				0.89%		
		Present Value of In	nitial Impact Fee F	Fund Balance		\$	903,680		
		Total Escalated Ex	nense for Entire I	Period		\$	82,908,614		
		Less Future Value				Ψ	1,166,772		
		Sub-Total	_	\$	81,741,842	-			
		Total Escalated Se	ervice Units				39,100		
		Impact Fee for Se		\$	2,091				

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area G

<u>Year</u>	Impa <u>Fe</u>		_	ervice <u>Jnits</u>		!	Impact Fee <u>Revenue</u>	<u> </u>	Annual Expenses	Sub-Total	A	ccumulated Interest		Estimated Fund <u>Balance</u>
Initial													\$	903,680
1	\$ 2	,091	\$	3,164		\$	6,613,978	\$	5,561,023	\$ 1,052,956	\$	12,657		1,969,292
2	2	,091		3,164			6,613,978		2,985,746	3,628,233		33,483		5,631,008
3	2	,091		3,164			6,613,978		3,192,756	3,421,222		64,973		9,117,204
4	2	,091		3,164			6,613,978		3,400,691	3,213,287		94,906		12,425,397
5	2	,091		3,164			6,613,978		3,609,921	3,004,058		123,258		15,552,713
6	2	,091		3,164			6,613,978		3,821,376	2,792,602		149,999		18,495,313
7	2	,091		3,164			6,613,978		4,034,882	2,579,096		175,096		21,249,506
8	2	,091		3,164			6,613,978		4,249,140	2,364,839		198,523		23,812,867
9	2	,091		3,164			6,613,978		4,464,337	2,149,641		220,256		26,182,764
10	2	,091		3,164			6,613,978		2,118,208	4,495,770		251,611		30,930,145
11		-		-			-		2,146,019	(2,146,019)		264,236		29,048,362
12		-		-			-		2,146,019	(2,146,019)		247,582		27,149,925
13		-		-			-		2,146,019	(2,146,019)		230,781		25,234,686
14		-		-			-		2,146,019	(2,146,019)		213,831		23,302,498
15		-		-			-		2,146,019	(2,146,019)		196,731		21,353,210
16		-		-			-		2,146,019	(2,146,019)		179,480		19,386,671
17		-		-			-		2,146,019	(2,146,019)		162,076		17,402,727
18		-		-			-		2,146,019	(2,146,019)		144,518		15,401,226
19		-		-			-		2,146,019	(2,146,019)		126,805		13,382,012
20		-		-			-		2,146,019	(2,146,019)		108,935		11,344,928
21		-		-			-		2,146,019	(2,146,019)		90,906		9,289,815
22		-		-			-		1,936,581	(1,936,581)		73,645		7,426,880
23		-		-			-		1,726,775	(1,726,775)		58,087		5,758,192
24		-		-			-		1,516,051	(1,516,051)		44,251		4,286,392
25		-		-			-		1,304,037	(1,304,037)		32,164		3,014,519
26		-		-			-		1,089,804	(1,089,804)		21,856		1,946,571
27		-		-			-		873,525	(873,525)		13,362		1,086,408
28		-		-			-		656,500	(656,500)		6,710		436,618
29		-		-	_		-		438,541	(438,541)		1,924	j.	0
						\$	66,139,785	\$	70,586,105		\$	3,542,641		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area G

	Impact Fee		Cost in		Impact Fee		Debt F	und	ed <sup>(3)</sup>		Non-Debt		Impact Fee
Impact Fee Project Name <sup>(1)</sup>	Project No. (1)	Se	rvice Area <sup>(1)</sup>	R	Recoverable Cost <sup>(2)</sup>		<b>Existing</b>		Proposed		Funded <sup>(3)</sup>	Re	coverable Cost
W J Boaz Rd.	E-9, G-1	\$	5,675,500	\$	4,759,086	\$	_	\$	2,379,543	\$	2,379,543	\$	4,759,086
Cromwell Marine Creek Rd. (1)	G-2	Ψ	3,771,000	Ψ	3,162,102	Ψ	_	Ψ	1,581,051	Ψ	1,581,051	Ψ	3,162,102
Cromwell Marine Creek Rd. (2)	G-3		8,747,000		7,334,635		_		3,667,318		3,667,318		7,334,635
Cromwell Marine Creek Rd. (3)	G-4		1,605,000		1,345,843		_		672,922		672,922		1,345,843
Cromwell Marine Creek Rd. (4)	G-5		4,521,000		3,791,001		_		1,895,501		1,895,501		3,791,001
Longhorn Rd.	G-6		1,563,000		1,310,625		_		655,312		655,312		1,310,625
Ten Mile Bridge Rd. (1)	G-7		5,600,000		4,695,777		_		2,347,888		2,347,888		4,695,777
Ten Mile Bridge Rd. (2)	G-8		2,842,000		2,383,107		_		1,191,553		1,191,553		2,383,107
Ten Mile Bridge Rd. (3)	G-9		1,916,000		1,606,626		_		803,313		803,313		1,606,626
Hodgkins Rd.	G-9 G-10		5,141,000		4,310,891		-		2,155,445		2,155,445		4,310,891
Huffines Blvd. (1)	G-10 G-11		1,422,000		1,192,392		_		596,196		596,196		1,192,392
Huffines Blvd. (1)	G-12		775,000		649,862		-		324,931		324,931		649,862
• • •			•		,				•		•		•
Marine Creek Pkwy. (1)	G-13		2,246,000		1,883,342		-		941,671		941,671		1,883,342
Marine Creek Pkwy. (2)	G-14		5,210,000		4,368,749		-		2,184,375		2,184,375		4,368,749
Marine Creek Pkwy. (3)	G-15		7,154,000		5,998,855		-		2,999,427		2,999,427		5,998,855
Old Decatur Rd. (2)	G-16		672,000		563,493		-		281,747		281,747		563,493
Old Decatur Rd. (3)	G-17		3,880,000		3,253,502		-		1,626,751		1,626,751		3,253,502
Delfin St	G-18		3,586,000		3,006,974		-		1,503,487		1,503,487		3,006,974
2013 Transportation Impact Fee			25,555		21,429		-		10,714		10,714		21,429
·	Total	\$	66,352,055	\$	55,638,290	\$	-	\$	27,819,145	\$	27,819,145	\$	55,638,290

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area G

2012 Population (All Service Areas) <sup>(1)</sup>	767,810
Ten Year Growth in Population (Service Area $\mathbf{G}$ ) $^{(2)}$	7,753
Annual Growth in Population	10_years 775

		1	2	3		4	5	6	7	8	9	10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 2	,781,915	\$ 2,781,915	\$ 2,781,9	15 \$ 2	2,781,915	\$ 2,781,915	\$ 2,781,915	\$ 2,781,915	\$ 2,781,915	\$ 2,781,915	\$ 2,781,915	\$ 27,819,145
Population (All Service Areas)		768,585	769,361	770,13	36	770,911	771,687	772,462	773,237	774,013	774,788	775,563	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	3.62	\$ 3.62	\$ 3.6	81 \$	3.61	\$ 3.60	\$ 3.60	\$ 3.60	\$ 3.59	\$ 3.59	\$ 3.59	
Annual Growth in Service Area G Population (Cumulative)		775	1,551	2,32	26	3,101	3,877	4,652	5,427	6,203	6,978	7,753	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	2,806	\$ 5,607	\$ 8,40	)2 \$	11,192	\$ 13,975	\$ 16,754	\$ 19,526	\$ 22,293	\$ 25,055	\$ 27,811	\$ 153,422

Credit Amount \$ 153,422

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area L

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	108
Existing Fund Balance (3)	\$ 57,589
Portion of Projects Funded by Existing Debt (4)	\$ 555,417
Non-debt Funded Project Cost (4)	439,605
Project Cost Funded Through New Debt (4)	439,605
Total Recoverable Project Cost (5)	\$ 1,434,627

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	43,961	4.26%	20
3	43,961	4.28%	20
4	43,961	4.33%	20
5	43,961	4.40%	20
6	43,961	4.52%	20
7	43,961	4.63%	20
8	43,961	4.67%	20
9	43,961	4.72%	20
10	87,921	4.79%	20
Total	\$ 439,605		·

#### III. Capital Expenditure Assumptions

<u>Year</u>		Annual Capital enditures <sup>(8)</sup>
1	\$	143.463
=	φ	-,
2		143,463
3		143,463
4		143,463
5		143,463
6		143,463
7		143,463
8		143,463
9		143,463
10		143,463
Total	\$	1,434,627

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area L

#### I. New Debt Service Detail

Year	Series <u>1</u>	Series	Series <u>3</u>	Series <u>4</u>	Series <u>5</u>	Series	Series 7	Series <u>8</u>	Series	Series	Total Annual New Debt <u>Service</u>
1	\$ -	\$ -	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2	-	3,310	-	-	-	-	-	-	-	-	3,310
3	-	3,310		-	-	-	-	-	-	-	6,625
4	-	3,310		3,330	-	-	-	-	-	-	9,955
5	-	3,310		3,330	3,350	-	-	-	-	-	13,305
6	-	3,310		3,330	3,350	3,385	-	-	-	-	16,691
7	-	3,310		3,330	3,350	3,385	3,418	-	-	-	20,108
8	-	3,310		3,330	3,350	3,385	3,418	3,429	-	-	23,538
9	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	-	26,982
10	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
11	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
12	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
13	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
14	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
15	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
16	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
17	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
18	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
19	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
20	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
21	-	3,310		3,330	3,350	3,385	3,418	3,429	3,444	6,930	33,912
22	-	-	3,315	3,330	3,350	3,385	3,418	3,429	3,444	6,930	30,602
23	-	-		3,330	3,350	3,385	3,418	3,429	3,444	6,930	27,287
24	-	-	-	-	3,350	3,385	3,418	3,429	3,444	6,930	23,957
25	-	-	-	-	-	3,385	3,418	3,429	3,444	6,930	20,607
26	-	-		-	-		3,418	3,429	3,444	6,930	17,221
27	-	-		-	-		-	3,429	3,444	6,930	13,804
28	-	-	•	-	-	-	-	-	3,444	6,930	10,374
29		-	-		-	-	-	-	-	6,930	6,930
	\$ -	\$ 66,192	\$ 66,308	\$ 66,598 \$	67,006 \$	67,707 \$	68,354 \$	68,590 \$	68,885 \$	138,599 \$	678,238

#### II. Summary of Annual Expenses

Year		New Annual Debt Service <sup>(1)</sup>	Annual Capital enditures <sup>(2)</sup>		Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>		Funding from Existing Debt Proceeds <sup>(3)</sup>		Annual Credit <sup>(4)</sup>	ļ	Total Expense
1	\$	_	\$ 143,463	s	_	\$ 73,118	\$	(555,417)	s	(2) \$	6	(338,838)
2	•	3,310	143,463	•	(43,961)	66,200	•	(,		(3)		169,009
3		6,625	143,463		(43,961)	64,572				(5)		170,694
4		9,955	143,463		(43,961)	62,892				(7)		172,343
5		13,305	143,463		(43,961)	61,263				(8)		174,063
6		16,691	143,463		(43,961)	59,635				(10)		175,818
7		20,108	143,463		(43,961)	58,004				(12)		177,603
8		23,538	143,463		(43,961)	34,101				(13)		157,128
9		26,982	143,463		(43,961)	32,997				(15)		159,466
10		33,912	143,463		(87,921)	31,892				(17)		121,329
11		33,912	-		-	30,788				-		64,700
12		33,912	-		-	29,683				-		63,595
13		33,912	-		-	28,579				-		62,491
14		33,912	-		-	27,474				-		61,386
15		33,912	-		-	26,369				-		60,281
16		33,912	-		-	25,262				-		59,174
17		33,912	-		-	202				-		34,114
18		33,912	-		-	197				-		34,109
19		33,912	-		-	-				-		33,912
20		33,912	-		-	-				-		33,912
21		33,912	-		-	-				-		33,912
22		30,602	-		-	-				-		30,602
23		27,287	-		-	-				-		27,287
24		23,957	-		-	-				-		23,957
25		20,607	-		-	-				-		20,607
26		17,221	-		-	-				-		17,221
27		13,804	-		-	-				-		13,804
28		10,374	-		-	-				-		10,374
29		6,930	-		-	-				-		6,930
	\$	678,238	\$ 1,434,627	\$	(439,605)	\$ 713,229	\$	(555,417)	\$	(92) \$	5	1,830,981

<sup>(1)</sup> Appendix E - Service Area L, Page 2
(2) Appendix E - Service Area L, Page 1
(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area L, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area L

		Future Value	e Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Serv	vice Units	Δ	Annual E	xper	nse
Year	End of Period	Factor	<u>Factor</u>	<u>Actual</u>	Escalated	Actu			scalated
1	29	1.2855	1.0000	108	139	\$ (3	38,838)	\$	(435,566)
2	28	1.2742	1.0000	108	137	1	69,009		215,350
3	27	1.2630	1.0000	108	136	1	70,694		215,589
4	26	1.2519	1.0000	108	135	1	72,343		215,762
5	25	1.2410	1.0000	108	134	1	74,063		216,004
6	24	1.2301	1.0000	108	133	1	75,818		216,268
7	23	1.2193	1.0000	108	132	1	77,603		216,547
8	22	1.2086	1.0000	108	130	1	57,128		189,902
9	21	1.1980	1.0000	108	129	1	59,466		191,037
10	20	1.1875	1.0000	108	128	1	21,329		144,075
11	19	1.1771	1.0000	-	-		64,700		76,155
12	18	1.1667	1.0000	-	-		63,595		74,198
13	17	1.1565	1.0000	-	-		62,491		72,270
14	16	1.1463	1.0000	-	-		61,386		70,370
15	15	1.1363	1.0000	-	-		60,281		68,497
16	14	1.1263	1.0000	-	-		59,174		66,649
17	13	1.1164	1.0000	-	-		34,114		38,086
18	12	1.1066	1.0000	-	-		34,109		37,746
19	11	1.0969	1.0000	-	-		33,912		37,199
20	10	1.0873	1.0000	-	-		33,912		36,873
21	9	1.0778	1.0000	-	-		33,912		36,550
22	8	1.0683	1.0000	-	-		30,602		32,693
23	7	1.0590	1.0000	-	-		27,287		28,896
24	6	1.0497	1.0000	-	-		23,957		25,147
25	5	1.0405	1.0000	-	-		20,607		21,440
26	4	1.0313	1.0000	-	-		17,221		17,761
27	3	1.0223	1.0000	-	-		13,804		14,111
28	2	1.0133	1.0000	-	-		10,374		10,512
29	1	1.0044	1.0000	-			6,930		6,961
					1,334			\$	2,157,083
		Annual Interest Ra	ite:				0.89%		
		Present Value of In	nitial Impact Fee F	Fund Balance	:	\$	57,589		
		Total Escalated Ex	vnense for Entire	Period		\$ 2,1	57,083		
		Less Future Value					74,355		
		Sub-Total	or militar impact i	CC I GITO DATATICE			82,727		
		Oub Total			,	Ψ 2,0	02,121		
		Total Escalated Se	ervice Units				1,334		
		Impact Fee for Se	ervice Area L		:	\$	1,562		

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area L

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>	Annual Expenses	Sub-Total	Accumulated Interest	Estimated Fund <u>Balance</u>
Initial							\$ 57,589
1	\$ 1,562	\$ 108	\$ 168,520	338,838)	\$ 507,357	\$ 2,755	567,701
2	1,562	108	168,520	169,009	(489)	5,022	572,234
3	1,562	108	168,520	170,694	(2,174)	5,055	575,115
4	1,562	108	168,520	172,343	(3,823)	5,073	576,365
5	1,562	108	168,520	174,063	(5,543)	5,076	575,898
6	1,562	108	168,520	175,818	(7,298)	5,064	573,664
7	1,562	108	168,520	177,603	(9,083)	5,037	569,618
8	1,562	108	168,520	157,128	11,392	5,092	586,102
9	1,562	108	168,520	159,466	9,054	5,227	600,382
10	1,562	108	168,520	121,329	47,190	5,522	653,095
11	-	-	-	64,700	(64,700)	5,494	593,889
12	-	-	-	63,595	(63,595)	4,975	535,268
13	-	-	-	62,491	(62,491)	4,461	477,238
14	-	-	-	61,386	(61,386)	3,952	419,804
15	-	-	-	60,281	(60,281)	3,449	362,971
16	-	-	-	59,174	(59,174)	2,950	306,748
17	-	-	-	34,114	(34,114)	2,564	275,198
18	-	-	-	34,109	(34,109)	2,285	243,374
19	-	-	-	33,912	(33,912)	2,004	211,466
20	-	-	-	33,912	(33,912)	1,721	179,275
21	-	-	-	33,912	(33,912)	1,437	146,800
22	-	-	-	30,602	(30,602)	1,164	117,361
23	-	-	-	27,287	(27,287)	918	90,992
24	-	-	-	23,957	(23,957)	699	67,735
25	-	-	-	20,607	(20,607)	508	47,636
26	-	-	-	17,221	(17,221)	345	30,760
27	-	-	-	13,804	(13,804)	211	17,168
28	-	-	-	10,374	(10,374)	106	6,900
29	-	-		6,930	(6,930)	30	(0)
			\$ 1,685,197	7 \$ 1,830,981		\$ 88,194	

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area L

Impact Fee Project Name <sup>(1)</sup>	Impact Fee Cost in <u>Project No.<sup>(1)</sup></u> <u>Service Area<sup>(</sup></u>			Impact Fee Recoverable Cost <sup>(2)</sup>		Debt Funded <sup>(3)</sup> <u>Existing</u> <u>Pro</u>		ed <sup>(3)</sup> <u>Proposed</u>	Non-Debt Funded <sup>(3)</sup>	Impact Fee Recoverable Cost		
E 1st St. (1)	L-1	\$	3,315,000	\$	555,417	\$	555,417	\$	-	\$ -	\$	555,417
Randol Mill Rd. (1)	L-2		5,222,000		874,928		-		437,464	437,464		874,928
2013 Transportation Impact Fee			25,555		4,282		-		2,141	2,141		4,282
	Total	\$	8.562.555	\$	1.434.627	\$	555.417	\$	439.605	\$ 439.605	\$	1.434.627

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area L

2012 Population (All Service Areas) <sup>(1)</sup>	767,810	
Ten Year Growth in Population (Service Area L) <sup>(2)</sup>	291	
	10	years
Annual Growth in Population	29	-

	 1	2	2	3		4		5	6	7	8	9	10	Total	
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 43,961 \$	6 4	43,961 \$	5 4	3,961 \$	43,9	961 \$	43,961 \$	43,961	\$ 43,961 \$	43,961	\$ 43,961	\$ 43,961	\$ 439,605	5
Population (All Service Areas)	767,839	76	67,868	76	7,897	767,9	927	767,956	767,985	768,014	768,043	768,072	768,101		
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$ 0.06 \$	5	0.06 \$	3	0.06 \$	0	.06 \$	0.06 \$	0.06	\$ 0.06 \$	0.06	\$ 0.06	\$ 0.06		
Annual Growth in Service Area L Population (Cumulative)	29		58		87	1	117	146	175	204	233	262	291		
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$ 2 \$	5	3 \$	;	5 \$		7 \$	8 \$	10	\$ 12 \$	13	\$ 15	\$ 17	\$ 92	2

92

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees Impact Fee Calculation Assumptions Appendix E - Service Area M

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	1,743
Existing Fund Balance (3)	\$ 771,899
Portion of Projects Funded by Existing Debt (4)	\$ 824,403
Non-debt Funded Project Cost (4)	18,332,014
Project Cost Funded Through New Debt (4)	18,332,014
Total Recoverable Project Cost (5)	\$ 37,488,432

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	1,833,201	4.26%	20
3	1,833,201	4.28%	20
4	1,833,201	4.33%	20
5	1,833,201	4.40%	20
6	1,833,201	4.52%	20
7	1,833,201	4.63%	20
8	1,833,201	4.67%	20
9	1,833,201	4.72%	20
10	3,666,403	4.79%	20
Total	\$ 18,332,014		

#### III. Capital Expenditure Assumptions

Year	Annual Capital Expenditures <sup>(8)</sup>
<u>i cai</u>	Experialtures
1	\$ 3,748,843
2	3,748,843
3	3,748,843
4	3,748,843
5	3,748,843
6	3,748,843
7	3,748,843
8	3,748,843
9	3,748,843
10	3,748,843
Total	\$ 37,488,432

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area M

#### I. New Debt Service Detail

<u>Year</u>	Series 1	Series 2	Series	Series	Series 5	Series	Series <u>7</u>	Series <u>8</u>	Series 9	Series	Total Annual New Debt <u>Service</u>
1	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2	-	138,014	-	-	-	-	-	-	-	-	138,014
3	-	138,014	138,256	-	-	-	-	-	-	-	276,270
4	-	138,014	138,256	138,861	-	-	-	-	-	-	415,131
5	-	138,014	138,256	138,861	139,711	-	-	-	-	-	554,842
6	-	138,014	138,256	138,861	139,711	141,174	-	-	-	-	696,015
7	-	138,014	138,256	138,861	139,711	141,174	142,521	-	-	-	838,537
8	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	-	-	981,550
9	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	-	1,125,179
10	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
11	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
12	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
13	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
14	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
15	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
16	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
17	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
18	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
19	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
20	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
21	-	138,014	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,414,165
22	-	-	138,256	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,276,151
23	-	-	-	138,861	139,711	141,174	142,521	143,013	143,629	288,986	1,137,895
24	-	-	-	-	139,711	141,174	142,521	143,013	143,629	288,986	999,034
25	-	-	-	-	-	141,174	142,521	143,013	143,629	288,986	859,323
26	-	-	-	-	-	-	142,521	143,013	143,629	288,986	718,149
27	-	-	-	-	-	-	-	143,013	143,629	288,986	575,628
28	-	-	-	-	-	-	-	-	143,629	288,986	432,615
29	-	-	-	-	-	-	-	-	-	288,986	288,986
	\$ -	\$ 2,760,278 \$	2,765,114 \$	2,777,222 \$	2,794,219 \$	2,823,476 \$	2,850,429 \$	2,860,261 \$	2,872,575 \$	5,779,719 \$	28,283,294

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>		Annual Capital enditures <sup>(2)</sup>		Annual Bond Proceeds <sup>(2)</sup>		Existing Annual Debt Service <sup>(3)</sup>		Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual <u>Credit<sup>(4)</sup></u>	Total Expense	<u>e</u>
1	\$ _	s	3,748,843	\$	_	\$	107.121	\$	(824,403) \$	(1,152) \$	3.03	0,408
2	138,014	•	3,748,843	•	(1,833,201)	•	97,451	•	(- ,, -	(2,303)		8,804
3	276,270		3,748,843		(1,833,201)		95,067			(3,453)	2,28	3,525
4	415,131		3,748,843		(1,833,201)		92,613			(4,601)	2,41	8,785
5	554,842		3,748,843		(1,833,201)		90,230			(5,748)	2,55	4,966
6	696,015		3,748,843		(1,833,201)		87,847			(6,893)	2,69	2,612
7	838,537		3,748,843		(1,833,201)		85,436			(8,037)	2,83	1,578
8	981,550		3,748,843		(1,833,201)		52,325			(9,179)	2,94	0,338
9	1,125,179		3,748,843		(1,833,201)		50,614			(10,320)	3,08	1,114
10	1,414,165		3,748,843		(3,666,403)		48,902			(11,459)	1,53	4,048
11	1,414,165		-		-		47,190			-		1,355
12	1,414,165		-		-		45,479			-		9,643
13	1,414,165		-		-		43,767			-	1,45	7,932
14	1,414,165		-		-		42,055			-		6,220
15	1,414,165		-		-		40,343			-		4,508
16	1,414,165		-		-		38,594			-	1,45	2,759
17	1,414,165		-		-		-			-		4,165
18	1,414,165		-		-		-			-		4,165
19	1,414,165		-		-		-			-	1,41	4,165
20	1,414,165		-		-		-			-		4,165
21	1,414,165		-		-		-			-		4,165
22	1,276,151		-		-		-			-		6,151
23	1,137,895		-		-		-			-		7,895
24	999,034		-		-		-			-		9,034
25	859,323		-		-		-			-		9,323
26	718,149		-		-		-			-		8,149
27	575,628		-		-		-			-		5,628
28	432,615		-		-		-			-		32,615
29	 288,986				-		-			-		88,986
	\$ 28,283,294	\$	37,488,432	\$	(18,332,014)	\$	1,065,034	\$	(824,403) \$	(63,145) \$	47,61	7,198

<sup>(1)</sup> Appendix E - Service Area M, Page 2
(2) Appendix E - Service Area M, Page 1
(2) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area M, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area M

		Future Value	Escalation					
	Number of	Interest	Recovery					
	Years to	Rate	Fee	Annual Serv	vice Units	Annual E	Expense	
<u>Year</u>	End of Period	<u>Factor</u>	<u>Factor</u>	<u>Actual</u>	<b>Escalated</b>	<u>Actual</u>	<b>Escalated</b>	
1	29	1.2855	1.0000	1,743	2,240 \$	3,030,408	\$ 3,895,50	1
2	28	1.2742	1.0000	1,743	2,221	2,148,804	2,737,994	4
3	27	1.2630	1.0000	1,743	2,201	2,283,525	2,884,130	
4	26	1.2519	1.0000	1,743	2,182	2,418,785	3,028,166	3
5	25	1.2410	1.0000	1,743	2,163	2,554,966	3,170,597	
6	24	1.2301	1.0000	1,743	2,144	2,692,612	3,312,097	
7	23	1.2193	1.0000	1,743	2,125	2,831,578	3,452,480	
8	22	1.2086	1.0000	1,743	2,106	2,940,338	3,553,639	
9	21	1.1980	1.0000	1,743	2,088	3,081,114	3,691,113	
10	20	1.1875	1.0000	1,743	2,070	1,534,048	1,821,637	7
11	19	1.1771	1.0000	-	-	1,461,355	1,720,093	3
12	18	1.1667	1.0000	-	-	1,459,643	1,703,007	7
13	17	1.1565	1.0000	-	-	1,457,932	1,686,088	3
14	16	1.1463	1.0000	-	-	1,456,220	1,669,335	5
15	15	1.1363	1.0000	-	-	1,454,508	1,652,746	3
16	14	1.1263	1.0000	-	-	1,452,759	1,636,277	7
17	13	1.1164	1.0000	-	-	1,414,165	1,578,835	5
18	12	1.1066	1.0000	-	-	1,414,165	1,564,985	5
19	11	1.0969	1.0000	-	-	1,414,165	1,551,256	3
20	10	1.0873	1.0000	-	-	1,414,165	1,537,648	3
21	9	1.0778	1.0000	-	-	1,414,165	1,524,159	9
22	8	1.0683	1.0000	-	-	1,276,151	1,363,345	5
23	7	1.0590	1.0000	-	-	1,137,895	1,204,979	9
24	6	1.0497	1.0000	-	-	999,034	1,048,650	)
25	5	1.0405	1.0000	-	-	859,323	894,088	3
26	4	1.0313	1.0000	-	-	718,149	740,648	3
27	3	1.0223	1.0000	-	-	575,628	588,454	1
28	2	1.0133	1.0000	-	-	432,615	438,375	5
29	1	1.0044	1.0000	-	-	288,986	290,26	5
					21,540		\$ 55,940,584	1
		Annual Interest Ra	te:			0.89%		
		Present Value of Ir	nitial Impact Fee	Fund Balance	\$	771,899		
		Total Escalated Ex	pense for Entire	Period	\$	55,940,584		
		Less Future Value	of Initial Impact F	Fee Fund Balance		996,626	-	
		Sub-Total			\$	54,943,959		
		Total Escalated Se	ervice Units			21,540		
		Impact Fee for Se	rvice Area M		\$	2,551		

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area M

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>		Annual Expenses		<u>Sub-Total</u>	Accumulated Interest			Estimated Fund <u>Balance</u>
Initial										\$	771,899
1	\$ 2,551	\$ 1,743	\$ 4,445,681	\$	3,030,408	\$	1,415,273	\$	13,094		2,200,266
2	2,551	1,743	4,445,681		2,148,804		2,296,877		29,636		4,526,780
3	2,551	1,743	4,445,681		2,283,525		2,162,156		49,630		6,738,565
4	2,551	1,743	4,445,681		2,418,785		2,026,896		68,605		8,834,067
5	2,551	1,743	4,445,681		2,554,966		1,890,715		86,548		10,811,329
6	2,551	1,743	4,445,681		2,692,612		1,753,069		103,438		12,667,836
7	2,551	1,743	4,445,681		2,831,578		1,614,103		119,253		14,401,193
8	2,551	1,743	4,445,681		2,940,338		1,505,343		134,112		16,040,647
9	2,551	1,743	4,445,681		3,081,114		1,364,567		147,998		17,553,212
10	2,551	1,743	4,445,681		1,534,048		2,911,633		168,230		20,633,075
11	-	-	-		1,461,355		(1,461,355)		176,136		19,347,856
12	-	-	-		1,459,643		(1,459,643)		164,770		18,052,983
13	-	-	-		1,457,932		(1,457,932)		153,318		16,748,369
14	-	-	-		1,456,220		(1,456,220)		141,779		15,433,928
15	-	-	-		1,454,508		(1,454,508)		130,154		14,109,574
16	-	-	-		1,452,759		(1,452,759)		118,441		12,775,257
17	-	-	-		1,414,165		(1,414,165)		106,803		11,467,896
18	-	-	-		1,414,165		(1,414,165)		95,233		10,148,964
19	-	-	-		1,414,165		(1,414,165)		83,561		8,818,360
20	-	-	-		1,414,165		(1,414,165)		71,785		7,475,980
21	-	-	-		1,414,165		(1,414,165)		59,905		6,121,720
22	-	-	-		1,276,151		(1,276,151)		48,530		4,894,100
23	-	-	-		1,137,895		(1,137,895)		38,278		3,794,482
24	-	-	-		999,034		(999,034)		29,160		2,824,609
25	-	-	-		859,323		(859,323)		21,195		1,986,481
26	-	-	-		718,149		(718,149)		14,403		1,282,734
27	-	-	-		575,628		(575,628)		8,805		715,912
28	-	-	-		432,615		(432,615)		4,421		287,718
29	-	-	-		288,986		(288,986)		1,268		0
			\$ 44,456,810	\$	47,617,198			\$	2,388,488		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area M

	Impact Fee	Cost in	Impact Fee	Debt Fur	nded <sup>(3)</sup>	Non-Debt	Impact Fee		
Impact Fee Project Name <sup>(1)</sup>	Project No. (1)	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	<b>Existing</b>	Proposed	Funded <sup>(3)</sup>	Recoverable Cost		
Precinct Line Rd. (1)	M-1	\$ 962,000	\$ 452,958	\$ 67,216	192,871	\$ 192,871	\$ 452,958		
Precinct Line Rd. (2)	M-2	10,837,000	5,102,606	757,188	2,172,709	2,172,709	5,102,606		
Precinct Line Rd. (3)	M-3	500,000	235,425	-	117,713	117,713	235,425		
Norwood Dr. (1)	M-4	1,754,000	825,872	_	412,936	412,936	825,872		
Norwood Dr. (2)	M-5	323,000	152,085	-	76,042	76,042	152,085		
Sandy Ln. (1)	M-6	1,051,000	494,864	-	247,432	247,432	494,864		
Sandy Ln. (2)	M-7	4,546,000	2,140,486	_	1,070,243	1,070,243	2,140,486		
Sandy Ln. (3)	M-8	2,773,000	1,305,668	-	652,834	652,834	1,305,668		
Cooks Ln. (1)	M-9	4,293,000	2,021,361	-	1,010,680	1,010,680	2,021,361		
Cooks Ln. (2)	M-10	788,000	371,030	-	185,515	185,515	371,030		
Cooks Ln. (3)	M-11	357,000	168,094	-	84,047	84,047	168,094		
Cooks Ln. (4)	M-12	906,000	426,591	-	213,295	213,295	426,591		
Randol Mill Rd. (2)	M-13	4,317,000	2,032,661	-	1,016,331	1,016,331	2,032,661		
Randol Mill Rd. (3)	M-14	243,000	114,417	-	57,208	57,208	114,417		
Randol Mill Rd. (4)	M-15	3,862,000	1,818,424	-	909,212	909,212	1,818,424		
Randol Mill Rd. (5)	M-16	1,752,000	824,930	-	412,465	412,465	824,930		
Randol Mill Rd. (6)	M-17	1,757,000	827,284	-	413,642	413,642	827,284		
Randol Mill Rd. (7)	M-18	2,253,000	1,060,826	-	530,413	530,413	1,060,826		
Randol Mill Rd. (8)	M-19	483,000	227,421	-	113,710	113,710	227,421		
Randol Mill Rd. (9)	M-20	891,000	419,528	-	209,764	209,764	419,528		
Randol Mill Rd. Bridge	M-21	1,265,000	595,626	-	297,813	297,813	595,626		
Anderson Blvd. (1)	M-22	196,000	92,287	-	46,143	46,143	92,287		
Anderson Blvd. (2)	M-23	2,176,000	1,024,571	-	512,285	512,285	1,024,571		
House Anderson Rd. (4)	M-24	3,573,000	1,682,349	-	841,174	841,174	1,682,349		
Trinity Blvd. (1)	M-25	11,532,000	5,429,847	-	2,714,924	2,714,924	5,429,847		
Trinity Blvd. (2)	M-26	6,570,000	3,093,487	-	1,546,744	1,546,744	3,093,487		
Trinity Blvd. (3)	M-27	4,386,000	2,065,150	-	1,032,575	1,032,575	2,065,150		
Trinity Blvd. (4)	M-28	5,247,000	2,470,552	-	1,235,276	1,235,276	2,470,552		
2013 Transportation Impact Fee		25,555	12,033		6,016	6,016	12,033		
	Total	\$ 79,618,555	\$ 37,488,432	\$ 824,403	18,332,014	\$ 18,332,014	\$ 37,488,432		

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area M

 2012 Population (All Service Areas)<sup>(1)</sup>
 767,810

 Ten Year Growth in Population (Service Area M)<sup>(2)</sup>
 4,830

 Annual Growth in Population
 483

		1		2		3		4	5	- (	6	7		8		9	10	Total	
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 1	,833,201	\$ 1,	,833,201	\$ ^	1,833,201	\$ 1	,833,201	\$ 1,833,201	\$ 1,8	33,201	\$ 1,83	3,201	\$ 1,833	,201	\$ 1,833,201	\$ 1,833,201	\$ 18,332,014	i
Population (All Service Areas)		768,293		768,776		769,259		769,742	770,225	7	70,708	77	1,191	771	,674	772,157	772,640		i i
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	2.39	\$	2.38	\$	2.38	\$	2.38	\$ 2.38	\$	2.38	\$	2.38	\$	2.38	\$ 2.37	\$ 2.37		1
Annual Growth in Service Area M Population (Cumulative)		483		966		1,449		1,932	2,415		2,898		3,381	3	,864	4,347	4,830		1
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	1,152	\$	2,303	\$	3,453	\$	4,601	\$ 5,748	\$	6,893	\$	8,037	\$ 9	,179	\$ 10,320	\$ 11,459	\$ 63,145	ı)

63,145

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area N

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	2,191
Existing Fund Balance (3)	\$ 700,448
Portion of Projects Funded by Existing Debt (4)	\$ -
Non-debt Funded Project Cost (4)	11,930,201
Project Cost Funded Through New Debt (4)	11,930,201
Total Recoverable Project Cost (5)	\$ 23.860.401

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	1,193,020	4.26%	20
3	1,193,020	4.28%	20
4	1,193,020	4.33%	20
5	1,193,020	4.40%	20
6	1,193,020	4.52%	20
7	1,193,020	4.63%	20
8	1,193,020	4.67%	20
9	1,193,020	4.72%	20
10	2,386,040	4.79%	20
Total	\$ 11,930,201		

#### III. Capital Expenditure Assumptions

Vaar	Annual Capital <u>Expenditures <sup>(8)</sup></u>
<u>Year</u>	Expenditures
1	\$ 2,386,040
2	2,386,040
3	2,386,040
4	2,386,040
5	2,386,040
6	2,386,040
7	2,386,040
8	2,386,040
9	2,386,040
10	2,386,040
Total	\$ 23,860,401

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area N

#### I. New Debt Service Detail

<u>Year</u>	Se	ries <u>1</u>	Series 2	Series <u>3</u>	Series	Series <u>5</u>	Series	Series <u>7</u>	Series <u>8</u>	Series 9	Series 10	Total Annual New Debt <u>Service</u>
1	\$	-	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2		-	89,817	-	-	-	-	-	-	-	-	89,817
3		-	89,817	89,975	-	-	-	-	-	-	-	179,792
4		-	89,817	89,975	90,369	-	-	-	-	-	-	270,161
5		-	89,817	89,975	90,369	90,922	-	-	-	-	-	361,083
6		-	89,817	89,975	90,369	90,922	91,874	-	-	-	-	452,956
7		-	89,817	89,975	90,369	90,922	91,874	92,751	-	-	-	545,707
8		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	-	-	638,778
9		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	-	732,249
10		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
11		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
12		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
13		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
14		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
15		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
16		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
17		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
18		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
19		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
20		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
21		-	89,817	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	920,317
22		-	-	89,975	90,369	90,922	91,874	92,751	93,071	93,471	188,068	830,500
23		-	-	-	90,369	90,922	91,874	92,751	93,071	93,471	188,068	740,525
24		-	-	-	-	90,922	91,874	92,751	93,071	93,471	188,068	650,156
25		-	-	-	-	-	91,874	92,751	93,071	93,471	188,068	559,235
26		-	-	-	•	-	-	92,751	93,071	93,471	188,068	467,361
27		-	-	-	•	-	-	-	93,071	93,471	188,068	374,610
28		-	-	-	-	-	-	-	-	93,471	188,068	281,539
29		-	-	-	-	-	-		-	-	188,068	188,068
	\$	-	\$ 1,796,348	\$ 1,799,495 \$	1,807,375 \$	1,818,436 \$	1,837,476 \$	1,855,016 \$	1,861,415 \$	1,869,429 \$	3,761,354 \$	18,406,344

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>		Annual Capital enditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Ē	Total Expense
1	\$ _	s	2,386,040	\$ _	\$ -	\$	\$ (52) \$	í	2,385,988
2	89,817		2,386,040	(1,193,020)	-		(104)		1,282,733
3	179,792		2,386,040	(1,193,020)	-		(156)		1,372,656
4	270,161		2,386,040	(1,193,020)	-		(208)		1,462,973
5	361,083		2,386,040	(1,193,020)	-		(260)		1,553,842
6	452,956		2,386,040	(1,193,020)	-		(312)		1,645,664
7	545,707		2,386,040	(1,193,020)	-		(364)		1,738,363
8	638,778		2,386,040	(1,193,020)	-		(416)		1,831,382
9	732,249		2,386,040	(1,193,020)	-		(469)		1,924,801
10	920,317		2,386,040	(2,386,040)	-		(521)		919,797
11	920,317		-	-	-		-		920,317
12	920,317		-	-	-		-		920,317
13	920,317		-	-	-		-		920,317
14	920,317		-	-	-		-		920,317
15	920,317		-	-	-		-		920,317
16	920,317		-	-	-		-		920,317
17	920,317		-	-	-		-		920,317
18	920,317		-	-	-		-		920,317
19	920,317		-	-	-		-		920,317
20	920,317		-	-	-		-		920,317
21	920,317		-	-	-		-		920,317
22	830,500		-	-	-		-		830,500
23	740,525		-	-	-		-		740,525
24	650,156		-	-	-		-		650,156
25	559,235		-	-	-		-		559,235
26	467,361		-	-	-		-		467,361
27	374,610		-	-	-		-		374,610
28	281,539		-	-	-		-		281,539
29	188,068		-	-	-		-		188,068
	\$ 18,406,344	\$	23,860,401	\$ (11,930,201)	\$ -	\$ -	\$ (2,863) \$	, —	30,333,681

<sup>(1)</sup> Appendix E - Service Area N, Page 2
(2) Appendix E - Service Area N, Page 1
(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area N, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area N

		Future Value	Fscalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vice Units		Annual E	- Yne	nse
Year	End of Period	Factor	Factor	Actual	Escalated		Actual		Escalated
<u>rour</u>	<u>Liid Oi i Ciilod</u>	<u>r dotor</u>	<u>r dotor</u>	Hotau	Localatea		Aotuui		<u> Localatea</u>
1	29	1.2855	1.0000	2,191	2,816	\$	2,385,988	\$	3,067,118
2	28	1.2742	1.0000	2,191	2,792		1,282,733		1,634,452
3	27	1.2630	1.0000	2,191	2,767		1,372,656		1,733,687
4	26	1.2519	1.0000	2,191	2,743		1,462,973		1,831,550
5	25	1.2410	1.0000	2,191	2,719		1,553,842		1,928,248
6	24	1.2301	1.0000	2,191	2,695		1,645,664		2,024,280
7	23	1.2193	1.0000	2,191	2,671		1,738,363		2,119,547
8	22	1.2086	1.0000	2,191	2,648		1,831,382		2,213,375
9	21	1.1980	1.0000	2,191	2,625		1,924,801		2,305,873
10	20	1.1875	1.0000	2,191	2,602		919,797		1,092,232
11	19	1.1771	1.0000	· -	, -		920,317		1,083,263
12	18	1.1667	1.0000	-	-		920,317		1,073,760
13	17	1.1565	1.0000	-	-		920,317		1,064,341
14	16	1.1463	1.0000	-	-		920,317		1,055,004
15	15	1.1363	1.0000	-	-		920,317		1,045,749
16	14	1.1263	1.0000	-	-		920,317		1,036,575
17	13	1.1164	1.0000	-	-		920,317		1,027,482
18	12	1.1066	1.0000	-	-		920,317		1,018,469
19	11	1.0969	1.0000	-	-		920,317		1,009,534
20	10	1.0873	1.0000	-	-		920,317		1,000,678
21	9	1.0778	1.0000	-	-		920,317		991,900
22	8	1.0683	1.0000	_	_		830,500		887,244
23	7	1.0590	1.0000	_	_		740,525		784,182
24	6	1.0497	1.0000	-	-		650,156		682,446
25	5	1.0405	1.0000	-	-		559,235		581,859
26	4	1.0313	1.0000	-	-		467,361		482,003
27	3	1.0223	1.0000	-	-		374,610		382,957
28	2	1.0133	1.0000	-	-		281,539		285,288
29	1	1.0044	1.0000	-	-		188,068		188,900
					27,077			\$	35,631,994
		Annual Interest Ra	te:				0.89%		
		Present Value of In	nitial Impact Fee F	Fund Balance		\$	700,448		
		Total Escalated Ex	nonco for Entiro	Pariod		\$	35,631,994		
		Less Future Value				Ψ			
		Sub-Total	oi iiiiliai iiiipact F	ee i uiiu balalik	_	\$	904,372	•	
		Oub Total				Ψ	UT, 1 21 ,UZ 1		
		Total Escalated Se	ervice Units				27,077		
		Impact Fee for Se	rvice Area N			\$	1,283		

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area N

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>		<u> </u>	Annual <u>Expenses</u> <u>Sub-Total</u>		Sub-Total	Accumulated Interest			Estimated Fund <u>Balance</u>
Initial											\$	700,448
1	\$ 1,283	\$ 2,191	\$	2,809,916	\$	2,385,988	\$	423,928	\$	8,075		1,132,451
2	1,283	2,191		2,809,916		1,282,733		1,527,183		16,780		2,676,414
3	1,283	2,191		2,809,916		1,372,656		1,437,260		30,046		4,143,721
4	1,283	2,191		2,809,916		1,462,973		1,346,944		42,632		5,533,297
5	1,283	2,191		2,809,916		1,553,842		1,256,074		54,528		6,843,898
6	1,283	2,191		2,809,916		1,645,664		1,164,252		65,720		8,073,871
7	1,283	2,191		2,809,916		1,738,363		1,071,553		76,195		9,221,620
8	1,283	2,191		2,809,916		1,831,382		978,535		85,941		10,286,096
9	1,283	2,191		2,809,916		1,924,801		885,115		94,949		11,266,160
10	1,283	2,191		2,809,916		919,797	919,797 1,890,1			108,069		13,264,349
11	-	-		-		920,317			113,317			12,457,348
12	-	-		-		920,317		(920,317)		106,175		11,643,206
13	-	-		-		920,317		(920,317)		98,970		10,821,859
14	-	-		-		920,317		(920,317)		91,701		9,993,243
15	-	-		-		920,317		(920,317)		84,368		9,157,294
16	-	-		-		920,317		(920,317)		76,970		8,313,946
17	-	-		-		920,317		(920,317)		69,506		7,463,135
18	-	-		-		920,317		(920,317)		61,976		6,604,794
19	-	-		-		920,317		(920,317)		54,380		5,738,857
20	-	-		-		920,317		(920,317)		46,716		4,865,256
21	-	-		-		920,317		(920,317)		38,985		3,983,924
22	-	-		-		830,500		(830,500)		31,583		3,185,007
23	-	-		-		740,525		(740,525)		24,910		2,469,392
24	-	-		-		650,156		(650,156)		18,977		1,838,213
25	-	-		-		559,235		(559,235)		13,794		1,292,772
26	-	-		-		467,361		(467,361)		9,373		834,784
27	-	-		-		374,610		(374,610)		5,730		465,905
28	-	-		-		281,539		(281,539)	2,877			187,243
29	-	-		-		188,068						0
			\$	28,099,163	\$	30,333,681			\$	1,534,070		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area N

	Impact Fee	Cost in	Impact Fee	Debt Fun	ded <sup>(3)</sup>	Non-Debt	Impact Fee	
Impact Fee Project Name <sup>(1)</sup>	Project No. (1)	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	<b>Existing</b>	Proposed	Funded <sup>(3)</sup>	Recoverable Cost	
S. Pipeline Rd. (1)	N-1	\$ 3,465,000	\$ 3,089,137	\$ - \$	5 1,544,569 \$	1,544,569	\$ 3,089,137	
S. Pipeline Rd. (2)	N-2	1,546,000	1,378,299	· ·	689,149	689,149	1,378,299	
S. Pipeline Rd. (3)	N-3	1,449,000	1,291,821	-	645,910	645,910	1,291,821	
S. Pipeline Rd. (4)	N-4	5,609,000	5,000,568	-	2,500,284	2,500,284	5,000,568	
S. Pipeline Rd. (5)	N-5	2,142,000	1,909,648	-	954,824	954,824	1,909,648	
S. Pipeline Rd. (6)	N-6	728,000	649,031	-	324,515	324,515	649,031	
S. Pipeline Rd. (7)	N-7	370,000	329,865	-	164,932	164,932	329,865	
House Anderson Rd. (1)	N-8	618,000	550,963	-	275,481	275,481	550,963	
House Anderson Rd. (2)	N-9	1,953,000	1,741,150	-	870,575	870,575	1,741,150	
House Anderson Rd. (3)	N-10	838,000	747,099	-	373,549	373,549	747,099	
Euless South Main St	N-11	891,000	794,350	-	397,175	397,175	794,350	
FAA Blvd. (1)	N-12	2,291,000	2,042,486	-	1,021,243	1,021,243	2,042,486	
FAA Blvd. (2)	N-13	788,000	702,522	-	351,261	351,261	702,522	
Centreport Dr.	N-14	2,155,000	1,921,238	-	960,619	960,619	1,921,238	
Trinity Blvd. (5)	N-15	1,895,000	1,689,441	-	844,721	844,721	1,689,441	
2013 Transportation Impact Fee		25,555	22,783	-	11,391	11,391	22,783	
	Total	\$ 26,763,555	\$ 23,860,401	\$ - \$	11,930,201 \$	11,930,201	\$ 23,860,401	

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area N

2012 Population (All Service Areas) <sup>(1)</sup>	767,810
Ten Year Growth in Population (Service Area N) <sup>(2)</sup>	335
Annual Growth in Population	<u>10_</u> years 34

	 1	2		3	4		5	6		7	8	9	1	0	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 1,193,020	\$ 1,193,020	\$	1,193,020	\$ 1,193	,020	\$ 1,193,020	\$ 1,193,02	0 \$	1,193,020	\$ 1,193,020	\$ 1,193,020	\$ 1,19	93,020	\$ 11,930,201
Population (All Service Areas)	767,844	767,877	7	767,911	767	,944	767,978	768,01	1	768,045	768,078	768,112	76	68,145	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$ 1.55	\$ 1.55	5 \$	1.55	\$	1.55	\$ 1.55	\$ 1.5	5 \$	1.55	\$ 1.55	\$ 1.55	\$	1.55	
Annual Growth in Service Area N Population (Cumulative)	34	67	7	101		134	168	20	1	235	268	302		335	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$ 52	\$ 104	1 \$	156	\$	208	\$ 260	\$ 31.	2 \$	364	\$ 416	\$ 469	\$	521	\$ 2,863

2,863

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area O

#### I. General Assumptions

Annual Interest Rate on Deposits (1)

Annual Service Unit Growth (2)

Existing Fund Balance (3)

Portion of Projects Funded by Existing Debt (4)

Non-debt Funded Project Cost (4)

Project Cost Funded Through New Debt (4)

Total Recoverable Project Cost (5)

3.869,774

Total Recoverable Project Cost (5)

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	386,977	4.26%	20
3	386,977	4.28%	20
4	386,977	4.33%	20
5	386,977	4.40%	20
6	386,977	4.52%	20
7	386,977	4.63%	20
8	386,977	4.67%	20
9	386,977	4.72%	20
10	773,955	4.79%	20
Total	\$ 3,869,774	_	

#### III. Capital Expenditure Assumptions

		Annual Capital
<u>Year</u>	Exp	enditures <sup>(8)</sup>
1	\$	773,955
2		773,955
3		773,955
4		773,955
5		773,955
6		773,955
7		773,955
8		773,955
9		773,955
10		773,955
Total	\$	7,739,547

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area O

#### I. New Debt Service Detail

<u>Year</u>	Seri <u>1</u>	ies	Series 2	Series 3	Series	Series <u>5</u>	Series	Series <u>7</u>	Series 8	Series	Series	Total Annual New Debt <u>Service</u>
1	\$	-	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2		-	29,134	-	-	-	-	-	-	-	-	29,134
3		-	29,134	29,185	-	-	-	-	-	-	-	58,319
4		-	29,134	29,185	29,313	-	-	-	-	-	-	87,632
5		-	29,134	29,185	29,313	29,492	-	-	-	-	-	117,124
6		-	29,134	29,185	29,313	29,492	29,801	-	-	-	-	146,925
7		-	29,134	29,185	29,313	29,492	29,801	30,085	-	-	-	177,010
8		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	-	-	207,199
9		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	-	237,518
10		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
11		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
12		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
13		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
14		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
15		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
16		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
17		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
18		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
19		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
20		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
21		-	29,134	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	298,521
22		-	-	29,185	29,313	29,492	29,801	30,085	30,189	30,319	61,003	269,387
23		-	-	-	29,313	29,492	29,801	30,085	30,189	30,319	61,003	240,203
24		-	-	-	-	29,492	29,801	30,085	30,189	30,319	61,003	210,890
25		-	-	-	-	-	29,801	30,085	30,189	30,319	61,003	181,398
26		-	-	-	-	-	-	30,085	30,189	30,319	61,003	151,597
27		-		-		-	-		30,189	30,319	61,003	121,511
28		-	-	-	-	-	-	-	-	30,319	61,003	91,322
29		-	-	-	-	-	-	-	-	-	61,003	61,003
	\$	-	\$ 582,678 \$	583,698 \$	586,254 \$	589,842 \$	596,018 \$	601,708 \$	603,783 \$	606,383 \$	1,220,062 \$	5,970,426

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital enditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>		Total cpense
1	\$ _	\$ 773,955	\$ _	\$ _	\$ -	\$ (92) \$	;	773,863
2	29,134	773,955	(386,977)	-		(184)		415,927
3	58,319	773,955	(386,977)	-		(276)		445,020
4	87,632	773,955	(386,977)	-		(368)		474,241
5	117,124	773,955	(386,977)	-		(460)		503,641
6	146,925	773,955	(386,977)	-		(552)		533,350
7	177,010	773,955	(386,977)	-		(644)		563,344
8	207,199	773,955	(386,977)	-		(735)		593,441
9	237,518	773,955	(386,977)	-		(827)		623,668
10	298,521	773,955	(773,955)	-		(919)		297,603
11	298,521	-	-	-		-		298,521
12	298,521	-	-	-		-		298,521
13	298,521	-	-	-		-		298,521
14	298,521	-	-	-		-		298,521
15	298,521	-	-	-		-		298,521
16	298,521	-	-	-		-		298,521
17	298,521	-	-	-		-		298,521
18	298,521	-	-	-		-		298,521
19	298,521	-	-	-		-		298,521
20	298,521	-	-	-		-		298,521
21	298,521	-	-	-		-		298,521
22	269,387	-	-	-		-		269,387
23	240,203	-	-	-		-		240,203
24	210,890	-	-	-		-		210,890
25	181,398	-	-	-		-		181,398
26	151,597	-	-	-		-		151,597
27	121,511	-	-	-		-		121,511
28	91,322	-	-	-		-		91,322
29	61,003	-	-	-		-		61,003
	\$ 5,970,426	\$ 7,739,547	\$ (3,869,774)	\$ -	\$ -	\$ (5,057) \$	. —	9,835,143

<sup>(1)</sup> Appendix E - Service Area O, Page 2
(2) Appendix E - Service Area O, Page 1
(2) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area O, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area O

		Future Value	• Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vice Units		Annual I	Exne	nse
Year	End of Period	Factor	Factor	Actual	Escalated		Actual		Escalated
<u></u>		<u> </u>	<u></u>	<u>- 101000</u>			<u>- 1010</u>		
1	29	1.2855	1.0000	896	1,151	\$	773,863	\$	994,778
2	28	1.2742	1.0000	896	1,141		415,927		529,972
3	27	1.2630	1.0000	896	1,131		445,020		562,068
4	26	1.2519	1.0000	896	1,121		474,241		593,720
5	25	1.2410	1.0000	896	1,111		503,641		624,996
6	24	1.2301	1.0000	896	1,102		533,350		656,057
7	23	1.2193	1.0000	896	1,092		563,344		686,872
8	22	1.2086	1.0000	896	1,082		593,441		717,222
9	21	1.1980	1.0000	896	1,073		623,668		747,142
10	20	1.1875	1.0000	896	1,063		297,603		353,394
11	19	1.1771	1.0000	-	-		298,521		351,376
12	18	1.1667	1.0000	-	-		298,521		348,293
13	17	1.1565	1.0000	-	-		298,521		345,238
14	16	1.1463	1.0000	-	-		298,521		342,209
15	15	1.1363	1.0000	-	-		298,521		339,207
16	14	1.1263	1.0000	-	-		298,521		336,232
17	13	1.1164	1.0000	-	-		298,521		333,282
18	12	1.1066	1.0000	-	-		298,521		330,358
19	11	1.0969	1.0000	-	-		298,521		327,460
20	10	1.0873	1.0000	-	-		298,521		324,588
21	9	1.0778	1.0000	-	-		298,521		321,740
22	8	1.0683	1.0000	-	-		269,387		287,794
23	7	1.0590	1.0000	-	-		240,203		254,363
24	6	1.0497	1.0000	-	-		210,890		221,364
25	5	1.0405	1.0000	-	-		181,398		188,736
26	4	1.0313	1.0000	-	-		151,597		156,346
27	3	1.0223	1.0000	-	-		121,511		124,219
28	2	1.0133	1.0000	-	-		91,322		92,538
29	1	1.0044	1.0000	-	-		61,003		61,273
					11,069			\$	11,552,838
		Annual Interest Ra	te:				0.89%		
		Present Value of In	nitial Impact Fee I	Fund Balance		\$	256,310		
		Total Escalated Ex	nense for Entire	Period		\$	11,552,838		
		Less Future Value			ė.	Ψ	330,931		
		Sub-Total	or miliar impact i	oo r ana Balano	<u>-</u>	\$	11,221,908	-	
		Total Escalated Se	ervice Units				11,069		
		Impact Fee for Se	rvice Area O			\$	1,014		

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area O

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	mpact Fee <u>evenue</u>	Annual <u>Expenses</u>	Sub-Total	A	Accumulated <u>Interest</u>		Estimated Fund <u>Balance</u>
Initial								\$	256,310
1	\$ 1,014	\$ 896	\$ 907,998	\$ 773,863	\$ 134,13	6 \$	2,862		393,308
2	1,014	896	907,998	415,927	492,07	1	5,658		891,037
3	1,014	896	907,998	445,020	462,97	8	9,934		1,363,950
4	1,014	896	907,998	474,241	433,75	8	13,990		1,811,698
5	1,014	896	907,998	503,641	404,35	7	17,823		2,233,878
6	1,014	896	907,998	533,350	374,64	8	21,428		2,629,954
7	1,014	896	907,998	563,344	344,65	5	24,800		2,999,409
8	1,014	896	907,998	593,441	314,55	7	27,937		3,341,903
9	1,014	896	907,998	623,668	284,33	0	30,834		3,657,066
10	1,014	896	907,998	297,603	610,39	6	35,066		4,302,528
11	-	-	-	298,521	(298,52	1)	36,756		4,040,763
12	-	-	-	298,521	(298,52	1)	34,440		3,776,682
13	-	-	-	298,521	(298,52	1)	32,103		3,510,263
14	-	-	-	298,521	(298,52	1)	29,745		3,241,487
15	-	-	-	298,521	(298,52	1)	27,366		2,970,332
16	-	-	-	298,521	(298,52	1)	24,966		2,696,777
17	-	-	-	298,521	(298,52	1)	22,546		2,420,801
18	-	-	-	298,521	(298,52	1)	20,103		2,142,383
19	-	-	-	298,521	(298,52	1)	17,639		1,861,501
20	-	-	-	298,521	(298,52	1)	15,153		1,578,133
21	-	-	-	298,521	(298,52	1)	12,646		1,292,257
22	-	-	-	269,387	(269,38	7)	10,244		1,033,114
23	-	-	-	240,203	(240,20	3)	8,080		800,991
24	-	-	-	210,890	(210,89	0)	6,156		596,257
25	-	-	-	181,398	(181,39	8)	4,474		419,334
26	-	-	-	151,597	(151,59	7)	3,040		270,777
27	-	-	-	121,511	(121,51	1)	1,859		151,124
28	-	-	-	91,322		2)	933		60,736
29	-	-		61,003		3)	268		(0)
			\$ 9,079,983	\$ 9,835,143		\$	498,849		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area O

	Impact Fee		Cost in		Impact Fee	Debt F	unde	ed <sup>(3)</sup>	Non-Debt		Impact Fee
Impact Fee Project Name <sup>(1)</sup>	Project No. <sup>(1)</sup>	Sei	vice Area <sup>(1)</sup>	Red	coverable Cost <sup>(2)</sup>	<u>Existing</u>	<u>!</u>	Proposed	Funded <sup>(3)</sup>	Red	coverable Cost
Sandy Ln. (4)	O-1	\$	792,000	\$	630,659	\$ -	\$	315,329	\$ 315,329	\$	630,659
Randol Mill Rd. (10)	O-2		822,000		654,547	-		327,274	327,274		654,547
Cooks Ln. (5)	O-3		5,372,000		4,277,649	-		2,138,825	2,138,825		4,277,649
Cooks Ln. (6)	O-4		855,000		680,825	-		340,412	340,412		680,825
Cooks Ln. (7)	O-5		1,853,000		1,475,518	-		737,759	737,759		1,475,518
2013 Transportation Impact Fee			25,555		20,349	-		10,175	10,175		20,349
	Total	\$	9,719,555	\$	7,739,547	\$ -	\$	3,869,774	\$ 3,869,774	\$	7,739,547

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area O

2012 Population (All Service Areas) <sup>(1)</sup>	767,810	
Ten Year Growth in Population (Service Area O) <sup>(2)</sup>	1,827	vears
Annual Growth in Population	183	years

	1	2	2	3		4		5		6	7	8		9	10	Tota	1
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 386,977 \$	38	86,977 \$	386	,977 \$	386	6,977 \$	386,97	77 \$	386,977	\$ 386,977 \$	386,	77 \$	386,977	\$ 386,977	\$ 3,869	9,774
Population (All Service Areas)	767,993	76	68,175	768	,358	768	8,541	768,72	24	768,906	769,089	769,	272	769,455	769,637		
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$ 0.50 \$	;	0.50 \$		0.50 \$	3	0.50 \$	0.5	50 \$	0.50	\$ 0.50 \$	, c	.50 \$	0.50	\$ 0.50		
Annual Growth in Service Area O Population (Cumulative)	183		365		548		731	91	14	1,096	1,279	1,	62	1,645	1,827		
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$ 92 \$	;	184 \$		276 \$	;	368 \$	46	60 \$	552	\$ 644 \$	; ;	'35 \$	827	\$ 919	\$ 5	5,057

5,057

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area S

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	1,568
Existing Fund Balance (3)	\$ 612,688
Portion of Projects Funded by Existing Debt (4)	\$ 1,585,072
Non-debt Funded Project Cost (4)	15,130,562
Project Cost Funded Through New Debt (4)	15,130,562
Total Recoverable Project Cost (5)	\$ 31.846.197

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	1,513,056	4.26%	20
3	1,513,056	4.28%	20
4	1,513,056	4.33%	20
5	1,513,056	4.40%	20
6	1,513,056	4.52%	20
7	1,513,056	4.63%	20
8	1,513,056	4.67%	20
9	1,513,056	4.72%	20
10	3,026,112	4.79%	20
Total	\$ 15,130,562	-	_

#### III. Capital Expenditure Assumptions

<u>Year</u>	Exp	Annual Capital enditures <sup>(8)</sup>
1	\$	3,184,620
2		3,184,620
3		3,184,620
4		3,184,620
5		3,184,620
6		3,184,620
7		3,184,620
8		3,184,620
9		3,184,620
10		3,184,620
Total	\$	31,846,197

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area S

#### I. New Debt Service Detail

<u>Year</u>	Series		Series	Series 3	Series	Series <u>5</u>	Series	Series 7	Series <u>8</u>	Series	Series 10	Total Annual New Debt <u>Service</u>
1	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2		-	113,912	-	-	-	-	-	-	-	-	113,912
3		-	113,912	114,111	-	-	-	-	-	-	-	228,023
4		-	113,912	114,111	114,611	-	-	-	-	-	-	342,633
5		-	113,912	114,111	114,611	115,312	-	-	-	-	-	457,946
6		-	113,912	114,111	114,611	115,312	116,520	-	-	-	-	574,465
7		-	113,912	114,111	114,611	115,312	116,520	117,632	-	-	-	692,097
8		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	-	-	810,135
9		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	-	928,681
10		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
11		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
12		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
13		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
14		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
15		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
16		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
17			113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
18		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
19		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
20			113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
21		-	113,912	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,167,199
22		-	-	114,111	114,611	115,312	116,520	117,632	118,038	118,546	238,518	1,053,287
23			-	-	114,611	115,312	116,520	117,632	118,038	118,546	238,518	939,176
24		-	-	-	-	115,312	116,520	117,632	118,038	118,546	238,518	824,565
25			-	-	-	-	116,520	117,632	118,038	118,546	238,518	709,253
26			-	-	-	-	-	117,632	118,038	118,546	238,518	592,734
27		-	-	-	-	-	-	-	118,038	118,546	238,518	475,102
28			-	-	-	-	-	-	-	118,546	238,518	357,064
29			-	-	-	-	-	-	-	-	238,518	238,518
	\$	- \$	2,278,231 \$	2,282,222 \$	2,292,216 \$	2,306,244 \$	2,330,392 \$	2,352,638 \$	2,360,753 \$	2,370,917 \$	4,770,365 \$	23,343,978

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>		Annual Capital enditures <sup>(2)</sup>		Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>		Funding from Existing Debt Proceeds <sup>(3)</sup>		Annual Credit <sup>(4)</sup>	!	Total Expense
1	\$ _	s	3.184.620	\$	_	\$ 302.352	\$	(1,585,072) \$	;	(944) \$		1,900,955
2	113,912		3,184,620	•	(1,513,056)	247,732	•	( , , .		(1,887)		2,031,320
3	228,023		3,184,620		(1,513,056)	242,521				(2,829)		2,139,278
4	342,633		3,184,620		(1,513,056)	236,843				(3,770)		2,247,271
5	457,946		3,184,620		(1,513,056)	231,642				(4,709)		2,356,442
6	574,465		3,184,620		(1,513,056)	226,442				(5,647)		2,466,823
7	692,097		3,184,620		(1,513,056)	221,241				(6,584)		2,578,317
8	810,135		3,184,620		(1,513,056)	8,017				(7,520)		2,482,195
9	928,681		3,184,620		(1,513,056)	7,757				(8,455)		2,599,546
10	1,167,199		3,184,620		(3,026,112)	7,497				(9,389)		1,323,814
11	1,167,199		-		-	7,237				-		1,174,436
12	1,167,199		-		-	6,977				-		1,174,176
13	1,167,199		-		-	6,717				-		1,173,916
14	1,167,199		-		-	6,457				-		1,173,655
15	1,167,199		-		-	6,196				-		1,173,395
16	1,167,199		-		-	5,936				-		1,173,135
17	1,167,199		-		-	-				-		1,167,199
18	1,167,199		-		-	-				-		1,167,199
19	1,167,199		-		-	-				-		1,167,199
20	1,167,199		-		-	-				-		1,167,199
21	1,167,199		-		-	-				-		1,167,199
22	1,053,287		-		-	-				-		1,053,287
23	939,176		-		-	-				-		939,176
24	824,565		-		-	-				-		824,565
25	709,253		-		-	-				-		709,253
26	592,734		-		-	-				-		592,734
27	475,102		-		-	-				-		475,102
28	357,064		-		-	-				-		357,064
29	 238,518		-		-	-				-		238,518
	\$ 23,343,978	\$	31,846,197	\$	(15,130,562)	\$ 1,771,564	\$	(1,585,072) \$	. –	(51,735) \$	_	40,194,369

<sup>(1)</sup> Appendix E - Service Area S, Page 2
(2) Appendix E - Service Area S, Page 1
(2) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area S, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area S

		Future Value	Escalation					
	Number of	Interest	Recovery					
	Years to	Rate	Fee	Annual Ser	vice Units	Annua	l Fxn	ense
<u>Year</u>	End of Period	Factor	Factor	Actual	Escalated	Actual	. <b>–</b> ∧p	Escalated
<u>1 0 u.                                   </u>		<u> </u>	1 40101	<u> </u>	<u> 200alatoa</u>	Hotaar		<u> </u>
1	29	1.2855	1.0000	1,568	2,016	\$ 1,900,95	5 \$	2,443,623
2	28	1.2742	1.0000	1,568	1,998	2,031,32	0	2,588,297
3	27	1.2630	1.0000	1,568	1,981	2,139,27	8	2,701,943
4	26	1.2519	1.0000	1,568	1,964	2,247,27	1	2,813,441
5	25	1.2410	1.0000	1,568	1,946	2,356,44	2	2,924,238
6	24	1.2301	1.0000	1,568	1,929	2,466,82	3	3,034,361
7	23	1.2193	1.0000	1,568	1,912	2,578,31	7	3,143,685
8	22	1.2086	1.0000	1,568	1,896	2,482,19	5	2,999,936
9	21	1.1980	1.0000	1,568	1,879	2,599,54	6	3,114,204
10	20	1.1875	1.0000	1,568	1,862	1,323,81	4	1,571,991
11	19	1.1771	1.0000	-	-	1,174,43	6	1,382,374
12	18	1.1667	1.0000	-	-	1,174,17	6	1,369,944
13	17	1.1565	1.0000	-	-	1,173,91	6	1,357,625
14	16	1.1463	1.0000	-	-	1,173,65	5	1,345,418
15	15	1.1363	1.0000	-	-	1,173,39	5	1,333,320
16	14	1.1263	1.0000	-	-	1,173,13		1,321,330
17	13	1.1164	1.0000	-	-	1,167,19		1,303,111
18	12	1.1066	1.0000	-	-	1,167,19		1,291,680
19	11	1.0969	1.0000	-	-	1,167,19		1,280,349
20	10	1.0873	1.0000	-	-	1,167,19	9	1,269,117
21	9	1.0778	1.0000	-	-	1,167,19	9	1,257,984
22	8	1.0683	1.0000	-	-	1,053,28		1,125,254
23	7	1.0590	1.0000	-	-	939,17		994,544
24	6	1.0497	1.0000	-	-	824,56		865,517
25	5	1.0405	1.0000	-	-	709,25	3	737,947
26	4	1.0313	1.0000	-	-	592,73	4	611,303
27	3	1.0223	1.0000	-	-	475,10	2	485,688
28	2	1.0133	1.0000	-	-	357,06	4	361,818
29	1	1.0044	1.0000	-	-	238,51	8	239,574
					19,384		\$	47,269,617
		Annual Interest Ra	te:			0.89	%	
		Present Value of I	nitial Impact Fee F	Fund Balance	5	\$ 612,68	8	
		Total Encolated C	roopee for Entire !	Dariad	,	↑ 47.000.04	7	
		Total Escalated Ex				\$ 47,269,61 701.06		
		Less Future Value	or miliar impact F	ee rund balanc		791,06 46.478.55		
		Sub-Total			,	\$ 46,478,55	4	
		Total Escalated Se	ervice Units			19,38	4	
		Impact Fee for Se	ervice Area S		;	\$ 2,39	8	

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area S

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee Annual Revenue Expenses		<u>s</u>	Sub-Total	Accumulated <u>Interest</u>		Estimated Fund <u>Balance</u>
Initial									\$ 612,688
1	\$ 2,398	\$ 1,568	\$ 3,760,720	\$ 1,900,9	55 \$	1,859,764	\$	13,652	2,486,104
2	2,398	1,568	3,760,720	2,031,3	20	1,729,399		29,655	4,245,158
3	2,398	1,568	3,760,720	2,139,2	78	1,621,442		44,745	5,911,344
4	2,398	1,568	3,760,720	2,247,2	71	1,513,449		59,012	7,483,806
5	2,398	1,568	3,760,720	2,356,4	42	1,404,277		72,446	8,960,529
6	2,398	1,568	3,760,720	2,466,8	23	1,293,897		85,026	10,339,452
7	2,398	1,568	3,760,720	2,578,3	17	1,182,403		96,736	11,618,591
8	2,398	1,568	3,760,720	2,482,1	95	1,278,525		108,482	13,005,597
9	2,398	1,568	3,760,720	2,599,5	46	1,161,174		120,238	14,287,009
10	2,398	1,568	3,760,720	1,323,8	14	2,436,905		137,223	16,861,138
11	-	-	-	1,174,4	36	(1,174,436)		144,024	15,830,726
12	-	-	-	1,174,1	76	(1,174,176)		134,906	14,791,457
13	-	-	-	1,173,9	16	(1,173,916)		125,710	13,743,251
14	-	-	-	1,173,6	55	(1,173,655)		116,434	12,686,030
15	-	-	-	1,173,3	95	(1,173,395)		107,079	11,619,714
16	-	-	-	1,173,1	35	(1,173,135)		97,643	10,544,222
17	-	-	-	1,167,1	99	(1,167,199)		88,152	9,465,174
18	-	-	-	1,167,1	99	(1,167,199)		78,602	8,376,577
19	-	-	-	1,167,1	99	(1,167,199)		68,968	7,278,346
20	-	-	-	1,167,1	99	(1,167,199)		59,249	6,170,396
21	-	-	-	1,167,1	99	(1,167,199)		49,443	5,052,640
22	-	-	-	1,053,2		(1,053,287)		40,055	4,039,408
23	-	-	-	939,1		(939,176)		31,593	3,131,824
24	-	-	-	824,5		(824,565)		24,068	2,331,327
25	-	-	-	709,2		(709,253)		17,494	1,639,567
26	-	-	-	592,7		(592,734)		11,887	1,058,721
27	-	-	-	475,1		(475,102)		7,267	590,887
28	-	-	-	357,0		(357,064)		3,649	237,472
29	-	-	 -	238,5		(238,518)		1,046	0
			\$ 37,607,197	\$ 40,194,3	69		\$	1,974,484	

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area S

	Impact Fee	Cost in	Impact Fee	Debt F	unded <sup>(3)</sup>	Non-Debt	Impact Fee
Impact Fee Project Name <sup>(1)</sup>	Project No. <sup>(1)</sup>	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	Existing	<b>Proposed</b>	Funded <sup>(3)</sup>	Recoverable Cost
Silver Creek Rd. (1)	S-1	\$ 3,825,000	\$ 1,544,297	\$ -	\$ 772,148	\$ 772,148	\$ 1,544,297
Silver Creek Rd. (2)	S-2	12,251,000	4,946,191	1,325,337	1,810,427	1,810,427	4,946,191
Silver Creek Rd. (3)	S-3	1,542,173	622,633	166,835	227,899	227,899	622,633
Academy Blvd. (1)	S-4	4,131,000	1,667,841	-	833,920	833,920	1,667,841
Academy Blvd. (2)	S-5	2,493,000	1,006,518	-	503,259	503,259	1,006,518
White Settlement Rd. (1)	S-6	5,539,000	2,236,303	-	1,118,152	1,118,152	2,236,303
White Settlement Rd. (2)	S-7	694,000	280,194	-	140,097	140,097	280,194
White Settlement Rd. (3)	S-8	5,949,000	2,401,836	-	1,200,918	1,200,918	2,401,836
White Settlement Rd. (4)	S-9	1,100,000	444,112	-	222,056	222,056	444,112
White Settlement Rd. (5)	S-10	986,000	398,085	-	199,043	199,043	398,085
Silver Ridge Blvd.	S-11	2,677,000	1,080,806	-	540,403	540,403	1,080,806
Westpoint Blvd. (1)	S-12	4,695,000	1,895,549	-	947,774	947,774	1,895,549
Westpoint Blvd. (2)	S-13	1,085,000	438,055	-	219,028	219,028	438,055
Westpoint Blvd. (3)	S-14	2,646,000	1,068,290	-	534,145	534,145	1,068,290
Westpoint Blvd. (4)	S-15	1,755,000	708,560	-	354,280	354,280	708,560
Alemeda St. (1)	S-16	1,567,000	632,657	-	316,329	316,329	632,657
Alemeda St. (2)	S-17	3,215,000	1,298,017	-	649,008	649,008	1,298,017
Alemeda St. (3)	S-18	1,235,000	498,616	-	249,308	249,308	498,616
N-S Minor Arterial	S-19	4,657,000	1,880,207	-	940,103	940,103	1,880,207
Old Weatherford Rd. (1)	S-20	6,546,000	2,642,867	-	1,321,434	1,321,434	2,642,867
Amber Ridge Dr. (1)	S-21	601,000	242,646	-	121,323	121,323	242,646
Amber Ridge Dr. (2)	S-22	1,143,000	461,472	-	230,736	230,736	461,472
Chapin Rd. (1)	S-23	1,991,000	803,842	-	401,921	401,921	803,842
Chapin Rd. (2)	S-24	1,930,000	779,214	-	389,607	389,607	779,214
Academy Blvd. (3)	S-25	3,632,000	1,466,375	-	733,188	733,188	1,466,375
Chapel Creek Blvd	S-26	967,698	390,696	92,900	148,898	148,898	390,696
2013 Transportation Impact Fee		25,555	10,318		5,159	5,159	10,318
·	Total	\$ 78,878,426	\$ 31,846,197	\$ 1,585,072	\$ 15,130,562	\$ 15,130,562	

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area S

2012 Population (All Service Areas) <sup>(1)</sup>	767,810
Ten Year Growth in Population (Service Area S) <sup>(2)</sup>	4,794
Annual Growth in Population	10_years 479

		1	2		3	4		5	6	7	8	9	10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 1,	513,056	\$ 1,513,0	56 \$	1,513,056	\$ 1,513,	056 \$	3 1,513,056	\$ 1,513,056	\$ 1,513,056	\$ 1,513,056	\$ 1,513,056	\$ 1,513,056	\$ 15,130,562
Population (All Service Areas)		768,289	768,7	769	769,248	769,	728	770,207	770,687	771,166	771,645	772,125	772,604	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	1.97	\$ 1	.97 \$	1.97	\$ 1	1.97 \$	1.96	\$ 1.96	\$ 1.96	\$ 1.96	\$ 1.96	\$ 1.96	
Annual Growth in Service Area S Population (Cumulative)		479	9	959	1,438	1,	918	2,397	2,877	3,356	3,835	4,315	4,794	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	944	\$ 1,8	887 \$	2,829	\$ 3,	770 \$	4,709	\$ 5,647	\$ 6,584	\$ 7,520	\$ 8,455	\$ 9,389	\$ 51,735

51,735

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area T

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	688
Existing Fund Balance (3)	\$ 165,723
Portion of Projects Funded by Existing Debt (4)	\$ -
Non-debt Funded Project Cost (4)	6,682,621
Project Cost Funded Through New Debt (4)	6,682,621
Total Recoverable Project Cost (5)	\$ 13,365,241

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	668,262	4.26%	20
3	668,262	4.28%	20
4	668,262	4.33%	20
5	668,262	4.40%	20
6	668,262	4.52%	20
7	668,262	4.63%	20
8	668,262	4.67%	20
9	668,262	4.72%	20
10	1,336,524	4.79%	20
Total	\$ 6.682.621		

#### III. Capital Expenditure Assumptions

<u>Year</u>	Annual Capital Expenditures <sup>(8)</sup>
1	\$ 1,336,524
2	1,336,524
3	1,336,524
4	1,336,524
5	1,336,524
6	1,336,524
7	1,336,524
8	1,336,524
9	1,336,524
10	1,336,524
Total	\$ 13,365,241

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area T

#### I. New Debt Service Detail

<u>Year</u>	Series <u>1</u>	Series	Series <u>3</u>	Series	Series 5	Series	Series <u>7</u>	Series	Series	Series	Total Annual New Debt <u>Service</u>
1	\$ -	\$ - \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2	-	50,311	-	-	-	-	-	-	-	-	50,311
3	-	50,311	50,399	-	-	-	-	-	-	-	100,709
4	-	50,311	50,399	50,619	-	-	-	-	-	-	151,329
5	-	50,311	50,399	50,619	50,929	-	-	-	-	-	202,258
6	-	50,311	50,399	50,619	50,929	51,462	-	-	-	-	253,720
7	-	50,311	50,399	50,619	50,929	51,462	51,954	-	-	-	305,674
8	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	-	-	357,807
9	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	-	410,165
10	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
11	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
12	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
13	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
14	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
15	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
16	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
17	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
18	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
19	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
20	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
21	-	50,311	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	515,509
22	-	-	50,399	50,619	50,929	51,462	51,954	52,133	52,357	105,345	465,199
23	-	-	-	50,619	50,929	51,462	51,954	52,133	52,357	105,345	414,800
24	-	-	-	-	50,929	51,462	51,954	52,133	52,357	105,345	364,181
25	-	-	-	-	-	51,462	51,954	52,133	52,357	105,345	313,251
26	-	-	-	-	-	-	51,954	52,133	52,357	105,345	261,789
27	-	-			-	-	-	52,133	52,357	105,345	209,835
28	-	-	-	-	-	-	-	-	52,357	105,345	157,702
29		-	-	-	-	-	-	-	-	105,345	105,345
	\$ -	\$ 1,006,212 \$	1,007,975 \$	1,012,389 \$	1,018,584 \$	1,029,250 \$	1,039,075 \$	1,042,659 \$	1,047,148 \$	2,106,897 \$	10,310,188

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	(	Annual Capital enditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ -	\$	1,336,524	\$ -	\$ -	\$ -	\$ (95)	\$ 1,336,429
2	50,311		1,336,524	(668,262)	-		(190)	718,382
3	100,709		1,336,524	(668,262)	-		(285)	768,686
4	151,329		1,336,524	(668,262)	-		(380)	819,210
5	202,258		1,336,524	(668,262)	-		(475)	870,045
6	253,720		1,336,524	(668,262)	-		(570)	921,412
7	305,674		1,336,524	(668,262)	-		(665)	973,271
8	357,807		1,336,524	(668,262)	-		(760)	1,025,309
9	410,165		1,336,524	(668,262)	-		(855)	1,077,571
10	515,509		1,336,524	(1,336,524)	-		(950)	514,559
11	515,509		-	-	-		-	515,509
12	515,509		-	-	-		-	515,509
13	515,509		-	-	-		-	515,509
14	515,509		-	-	-		-	515,509
15	515,509		-	-	-		-	515,509
16	515,509		-	-	-		-	515,509
17	515,509		-	-	-		-	515,509
18	515,509		-	-	-		-	515,509
19	515,509		-	-	-		-	515,509
20	515,509		-	-	-		-	515,509
21	515,509		-	-	-		-	515,509
22	465,199		-	-	-		-	465,199
23	414,800		-	-	-		-	414,800
24	364,181		-	-	-		-	364,181
25	313,251		-	-	-		-	313,251
26	261,789		-	-	-		-	261,789
27	209,835		-	-	-		-	209,835
28	157,702		-	-	-		-	157,702
29	 105,345		-	-	-		-	105,345
	\$ 10,310,188	\$	13,365,241	\$ (6,682,621)	\$ -	\$ -	\$ (5,228)	\$ 16,987,581

<sup>(1)</sup> Appendix E - Service Area T, Page 2
(2) Appendix E - Service Area T, Page 1
(2) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area T, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area T

		Future Value	Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vica Unite		Annual E	- Yne	neo
Year	End of Period	Factor	Factor	Actual	Escalated		Actual	-	Escalated
<u>r cur</u>	<u>Liid Oi i Ciilod</u>	<u>r dotor</u>	<u>r dotor</u>	<u> Aotaar</u>	Localatea		<del>Autuui</del>	-	<u> Loouiuteu</u>
1	29	1.2855	1.0000	688	884	\$	1,336,429	\$	1,717,941
2	28	1.2742	1.0000	688	877		718,382		915,359
3	27	1.2630	1.0000	688	869		768,686		970,863
4	26	1.2519	1.0000	688	861		819,210		1,025,600
5	25	1.2410	1.0000	688	854		870,045		1,079,686
6	24	1.2301	1.0000	688	846		921,412		1,133,400
7	23	1.2193	1.0000	688	839		973,271		1,186,688
8	22	1.2086	1.0000	688	831		1,025,309		1,239,170
9	21	1.1980	1.0000	688	824		1,077,571		1,290,909
10	20	1.1875	1.0000	688	817		514,559		611,024
11	19	1.1771	1.0000	-	-		515,509		606,782
12	18	1.1667	1.0000	-	-		515,509		601,459
13	17	1.1565	1.0000	-	-		515,509		596,183
14	16	1.1463	1.0000	-	-		515,509		590,953
15	15	1.1363	1.0000	-	-		515,509		585,769
16	14	1.1263	1.0000	-	-		515,509		580,631
17	13	1.1164	1.0000	-	-		515,509		575,537
18	12	1.1066	1.0000	-	-		515,509		570,488
19	11	1.0969	1.0000	-	-		515,509		565,484
20	10	1.0873	1.0000	-	-		515,509		560,523
21	9	1.0778	1.0000	-	-		515,509		555,606
22	8	1.0683	1.0000	-	-		465,199		496,984
23	7	1.0590	1.0000	-	-		414,800		439,254
24	6	1.0497	1.0000	-	-		364,181		382,267
25	5	1.0405	1.0000	-	-		313,251		325,924
26	4	1.0313	1.0000	-	-		261,789		269,991
27	3	1.0223	1.0000	-	-		209,835		214,511
28	2	1.0133	1.0000	-	-		157,702		159,802
29	1	1.0044	1.0000	-			105,345		105,811
					8,502			\$	19,954,598
		Annual Interest Ra	te:				0.89%		
		Present Value of Ir	nitial Impact Fee I	Fund Balance	;	\$	165,723		
		Total Escalated Ex	nonco for Entiro	Pariod		1	10 05/ 509		
		Less Future Value	•			\$	19,954,598 213,971		
		Sub-Total			-	\$	19,740,628		
		Total Escalated Se	ervice Units				8,502		
		Impact Fee for Se	rvice Area T		;	\$	2,322		

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area T

<u>Year</u>	lı	mpact <u>Fee</u>			Impact Fee <u>Revenue</u>	Fee Annual		Sub-Total			Accumulated Interest		Estimated Fund <u>Balance</u>	
Initial													\$	165,723
1	\$	2,322	\$	688	\$	1,597,274	\$	1,336,429	\$	260,845	\$	2,621		429,189
2		2,322		688		1,597,274		718,382		878,891		7,687		1,315,767
3		2,322		688		1,597,274		768,686		828,588		15,311		2,159,666
4		2,322		688		1,597,274		819,210		778,063		22,556		2,960,285
5		2,322		688		1,597,274		870,045		727,229		29,417		3,716,930
6		2,322		688		1,597,274		921,412		675,861		35,886		4,428,677
7		2,322		688		1,597,274		973,271		624,003		41,955		5,094,635
8		2,322		688		1,597,274		1,025,309		571,965		47,618		5,714,218
9		2,322		688		1,597,274		1,077,571		519,702		52,871		6,286,791
10		2,322		688		1,597,274		514,559		1,082,714		60,429		7,429,934
11		-		-		-		515,509		(515,509)		63,474		6,977,899
12		-		-		-		515,509		(515,509)		59,473		6,521,863
13		-		-		-		515,509		(515,509)		55,437		6,061,791
14		-		-		-		515,509		(515,509)		51,366		5,597,647
15		-		-		-		515,509		(515,509)		47,258		5,129,396
16		-		-		-		515,509		(515,509)		43,114		4,657,000
17		-		-		-		515,509		(515,509)		38,933		4,180,424
18		-		-		-		515,509		(515,509)		34,716		3,699,630
19		-		-		-		515,509		(515,509)		30,461		3,214,581
20		-		-		-		515,509		(515,509)		26,168		2,725,240
21		-		-		-		515,509		(515,509)		21,837		2,231,568
22		-		-		-		465,199		(465,199)		17,691		1,784,060
23		-		-		-		414,800		(414,800)		13,953		1,383,213
24		-		-		-		364,181		(364,181)		10,630		1,029,663
25		-		-		-		313,251		(313,251)		7,726		724,137
26		-		-		-		261,789		(261,789)		5,250		467,599
27		-		-		-		209,835		(209,835)		3,210		260,973
28		-		-		-		157,702		(157,702)		1,612		104,883
29		-		-				105,345		(105,345)		462	in the second	0
					\$	15,972,736	\$	16,987,581			\$	849,122		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area T

Impact Fee Project Name <sup>(1)</sup>	Impact Fee Project No. <sup>(1)</sup>	Se	Cost in ervice Area <sup>(1)</sup>	<u> </u>	Impact Fee Recoverable Cost <sup>(2)</sup>	Debt Fu Existing	ed <sup>(3)</sup> Proposed	Non-Debt Funded <sup>(3)</sup>	Re	Impact Fee coverable Cost
Chapin Rd. (3)	T-1	\$	4,682,000	\$	\$ 4,612,524	\$ -	\$ 2,306,262	\$ 2,306,262	\$	4,612,524
Alemeda St. (4)	T-2		676,000		665,969	-	332,984	332,984		665,969
Alemeda St. (5)	T-3		2,464,000		2,427,437	-	1,213,718	1,213,718		2,427,437
Chapin Rd. (4)	T-4		2,998,000		2,953,513	-	1,476,756	1,476,756		2,953,513
Chapin Rd. (5)	T-5		912,000		898,467	-	449,233	449,233		898,467
Chapin Rd. (6)	T-6		1,809,000		1,782,156	-	891,078	891,078		1,782,156
2013 Transportation Impact Fee			25,555		25,176	-	12,588	12,588		25,176
	Total	\$	13,566,555	9	13,365,241	\$ -	\$ 6,682,621	\$ 6,682,621	\$	13,365,241

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area T

2012 Population (All Service Areas) <sup>(1)</sup>	767,810	
Ten Year Growth in Population (Service Area T) <sup>(2)</sup>	1,093	
Annual Growth in Population	109	years

	 1	2		3	4	5	6	7	8	9	10		Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 668,262	\$ 668,262 \$	\$ 6	668,262 \$	668,262	\$ 668,262 \$	668,262 \$	668,262 \$	668,262 \$	668,262	\$ 668,2	62 \$	6,682,621
Population (All Service Areas)	767,919	768,029	7	768,138	768,247	768,357	768,466	768,575	768,685	768,794	768,9	03	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$ 0.87	\$ 0.87 \$	5	0.87 \$	0.87	\$ 0.87 \$	0.87 \$	0.87 \$	0.87 \$	0.87	\$ 0	87	
Annual Growth in Service Area T Population (Cumulative)	109	219		328	437	547	656	765	875	984	1,0	93	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$ 95	\$ 190 \$	<b>B</b>	285 \$	380	\$ 475 \$	570 \$	665 \$	760 \$	855	\$ 9	50 \$	5,228

5,228

(2) Table 6 of Report

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

Transportation Improvement Plan for Impact Fees Impact Fee Calculation Assumptions Appendix E - Service Area U

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	1,909
Existing Fund Balance (3)	-
Portion of Projects Funded by Existing Debt (4)	\$ -
Non-debt Funded Project Cost (4)	23 101 108

Non-debt Funded Project Cost Project Cost Funded Through New Debt (4)

Total Recoverable Project Cost (5)

\$ -
23,101,198
23,101,198
\$ 46,202,395

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	2,310,120	4.26%	20
3	2,310,120	4.28%	20
4	2,310,120	4.33%	20
5	2,310,120	4.40%	20
6	2,310,120	4.52%	20
7	2,310,120	4.63%	20
8	2,310,120	4.67%	20
9	2,310,120	4.72%	20
10	4,620,240	4.79%	20
Total	\$ 23,101,198		

#### III. Capital Expenditure Assumptions

<u>Year</u>	Annual Capital enditures <sup>(8)</sup>
1	\$ 4,620,240
2	4,620,240
3	4,620,240
4	4,620,240
5	4,620,240
6	4,620,240
7	4,620,240
8	4,620,240
9	4,620,240
10	4,620,240
Total	\$ 46,202,395

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area U

#### I. New Debt Service Detail

I. New Debt Service Detail												
Year	Series <u>1</u>	Series <u>2</u>	Series <u>3</u>	Series	Series <u>5</u>	Series	Series 7	Series <u>8</u>	Series 9	Series 10	Total Annual New Debt <u>Service</u>	
1	\$ - \$		- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-	
2	-	173,919		-	-	-	-	-	-	-	173,919	
3	-	173,919	174,224		-	-	-	-	-	-	348,143	
4	-	173,919	174,224	174,987		-	-	-	-	-	523,130	
5	-	173,919	174,224	174,987	176,058	-	-	-	-	-	699,187	
6	•	173,919	174,224	174,987	176,058	177,901	-	•	•	-	877,088	
′	-	173,919	174,224	174,987	176,058	177,901	179,599	-	•	-	1,056,687	
9	•	173,919	174,224	174,987 174,987	176,058 176,058	177,901 177,901	179,599	180,219 180,219	400.005	-	1,236,906 1,417,901	
•	-	173,919	174,224				179,599		180,995	-		
10 11	-	173,919 173,919	174,224 174,224	174,987 174,987	176,058 176,058	177,901 177,901	179,599 179,599	180,219 180,219	180,995 180,995	364,167 364,167	1,782,068 1,782,068	
11	-	173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
13	•	173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
14	•	173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
15		173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
16	_	173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
17	•	173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
18		173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
19		173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
20		173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
21	_	173,919	174,224	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,782,068	
22	_	-	174,224	174,987	176.058	177,901	179,599	180,219	180,995	364,167	1,608,149	
23	_		-	174,987	176,058	177,901	179,599	180,219	180,995	364,167	1,433,925	
24	-	-	-	-	176,058	177,901	179,599	180,219	180,995	364,167	1,258,939	
25	-	-	-	-	-	177,901	179,599	180,219	180,995	364,167	1,082,881	
26		-			-	-	179,599	180,219	180,995	364,167	904,980	
27	-	-	-	-	-	-	-	180,219	180,995	364,167	725,381	
28		-			-	-	-		180,995	364,167	545,162	
29		-			-	-	-		-	364,167	364,167	
	s - s	3,478,381 \$	3,484,475 \$	3,499,734 \$	3,521,151 \$	3,558,020 \$	3,591,985 \$	3,604,375 \$	3,619,893 \$	7,283,347 \$	35,641,362	

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital enditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>	from Existing Debt Proceeds(3)	Annual <u>Credit<sup>(4)</sup></u>	Ē	Total Expense
1	\$ _	\$ 4,620,240	\$ _	\$ _	\$ _	\$ (1,644)	ŝ	4,618,595
2	173,919	4,620,240	(2,310,120)	-		(3,287)		2,480,752
3	348,143	4,620,240	(2,310,120)	-		(4,926)		2,653,336
4	523,130	4,620,240	(2,310,120)	-		(6,564)		2,826,685
5	699,187	4,620,240	(2,310,120)	-		(8,199)		3,001,108
6	877,088	4,620,240	(2,310,120)	-		(9,832)		3,177,376
7	1,056,687	4,620,240	(2,310,120)	-		(11,462)		3,355,345
8	1,236,906	4,620,240	(2,310,120)	-		(13,090)		3,533,935
9	1,417,901	4,620,240	(2,310,120)	-		(14,716)		3,713,304
10	1,782,068	4,620,240	(4,620,240)	-		(16,340)		1,765,728
11	1,782,068	-	-	-		-		1,782,068
12	1,782,068	-	-	-		-		1,782,068
13	1,782,068	-	-	-		-		1,782,068
14	1,782,068	-	-	-		-		1,782,068
15	1,782,068	-	-	-		-		1,782,068
16	1,782,068	-	-	-		-		1,782,068
17	1,782,068	-	-	-		-		1,782,068
18	1,782,068	-	-	-		-		1,782,068
19	1,782,068	-	-	-		-		1,782,068
20	1,782,068	-	-	-		-		1,782,068
21	1,782,068	-	-	-		-		1,782,068
22	1,608,149	-	-	-		-		1,608,149
23	1,433,925	-	-	-		-		1,433,925
24	1,258,939	-	-	-		-		1,258,939
25	1,082,881	-	-	-		-		1,082,881
26	904,980	-	-	-		-		904,980
27	725,381	-	-	-		-		725,381
28	545,162	-	-	-		-		545,162
29	 364,167	-	-	-		-		364,167
	\$ 35,641,362	\$ 46,202,395	\$ (23,101,198)	\$	\$ -	\$ (90,060)	\$	58,652,499

<sup>(1)</sup> Appendix E - Service Area U, Page 2
(2) Appendix E - Service Area U, Page 1
(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area U, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area U

		Future Value						
	Number of	Interest	Recovery					
	Years to	Rate	Fee	Annual Ser	vice Units	Annual	Ехрє	ense
<u>Year</u>	End of Period	<u>Factor</u>	<u>Factor</u>	<u>Actual</u>	<b>Escalated</b>	<u>Actual</u>	-	<b>Escalated</b>
1	29	1.2855	1.0000	1,909	2,453	4,618,595	\$	5,937,070
2	28	1.2742	1.0000	1,909	2,432	2,480,752	Ψ	3,160,960
3	27	1.2630	1.0000	1,909	2,411	2,653,336		3,351,208
4	26	1.2519	1.0000	1,909	2,389	2,826,685		3,538,832
5	25	1.2410	1.0000	1,909	2,368	3,001,108		3,724,239
6	24	1.2301	1.0000	1,909	2,348	3,177,376		3,908,390
7	23	1.2193	1.0000	1,909	2,327	3,355,345		4,091,098
8	22	1.2086	1.0000	1,909	2,307	3,533,935		4,271,050
9	21	1.1980	1.0000	1,909	2,286	3,713,304		4,448,463
10	20	1.1875	1.0000	1,909	2,266	1,765,728		2,096,751
11	19	1.1771	1.0000	-	-	1,782,068		2,097,590
12	18	1.1667	1.0000	-	-	1,782,068		2,079,189
13	17	1.1565	1.0000	-	-	1,782,068		2,060,950
14	16	1.1463	1.0000	-	-	1,782,068		2,042,870
15	15	1.1363	1.0000	-	-	1,782,068		2,024,949
16	14	1.1263	1.0000	-	-	1,782,068		2,007,186
17	13	1.1164	1.0000	-	-	1,782,068		1,989,578
18	12	1.1066	1.0000	-	-	1,782,068		1,972,125
19	11	1.0969	1.0000	-	-	1,782,068		1,954,825
20	10	1.0873	1.0000	-	-	1,782,068		1,937,676
21	9	1.0778	1.0000	-	-	1,782,068		1,920,678
22	8	1.0683	1.0000	-	-	1,608,149		1,718,027
23	7	1.0590	1.0000	-	-	1,433,925		1,518,461
24	6	1.0497	1.0000	-	-	1,258,939		1,321,463
25	5	1.0405	1.0000	-	-	1,082,881		1,126,691
26	4	1.0313	1.0000	-	-	904,980		933,332
27	3	1.0223	1.0000	-	-	725,381		741,544
28	2	1.0133	1.0000	-	-	545,162		552,420
29	1	1.0044	1.0000	-		364,167		365,779
					23,588		\$	68,893,394
		Annual Interest Ra	te:			0.89%	,	
		Present Value of Ir	nitial Impact Fee F	Fund Balance	\$	; <u>-</u>		
		Total Escalated Ex Less Future Value	_	<u> </u>	=			
		Sub-Total			\$	, ,		
		Total Escalated Se	ervice Units			23,588		
		Impact Fee for Se	rvice Area U		\$	2,921		

### Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area U

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee Annual Revenue Expenses		Sub-Total	Α	accumulated Interest	Estimated Fund <u>Balance</u>	
Initial									\$ -
1	\$ 2,921	\$ 1,909	\$ 5,574,372	\$	4,618,595	\$ 955,777	\$	4,229	960,006
2	2,921	1,909	5,574,372		2,480,752	3,093,620		22,185	4,075,811
3	2,921	1,909	5,574,372		2,653,336	2,921,036		48,997	7,045,843
4	2,921	1,909	5,574,372		2,826,685	2,747,686		74,514	9,868,044
5	2,921	1,909	5,574,372		3,001,108	2,573,264		98,719	12,540,026
6	2,921	1,909	5,574,372		3,177,376	2,396,996		121,586	15,058,608
7	2,921	1,909	5,574,372		3,355,345	2,219,027		143,088	17,420,723
8	2,921	1,909	5,574,372		3,533,935	2,040,436		163,202	19,624,361
9	2,921	1,909	5,574,372		3,713,304	1,861,068		181,911	21,667,340
10	2,921	1,909	5,574,372		1,765,728	3,808,643		208,609	25,684,592
11	-	-	-		1,782,068	(1,782,068)		219,423	24,121,947
12	-	-	-		1,782,068	(1,782,068)		205,594	22,545,473
13	-	-	-		1,782,068	(1,782,068)		191,642	20,955,046
14	-	-	-		1,782,068	(1,782,068)		177,567	19,350,545
15	-	-	-		1,782,068	(1,782,068)		163,367	17,731,843
16	-	-	-		1,782,068	(1,782,068)		149,041	16,098,816
17	-	-	-		1,782,068	(1,782,068)		134,589	14,451,337
18	-	-	-		1,782,068	(1,782,068)		120,009	12,789,278
19	-	-	-		1,782,068	(1,782,068)		105,299	11,112,509
20	-	-	-		1,782,068	(1,782,068)		90,460	9,420,901
21	-	-	-		1,782,068	(1,782,068)		75,489	7,714,322
22	-	-	-		1,608,149	(1,608,149)		61,156	6,167,329
23	-	-	-		1,433,925	(1,433,925)		48,236	4,781,639
24	-	-	-		1,258,939	(1,258,939)		36,747	3,559,448
25	-	-	-		1,082,881	(1,082,881)		26,709	2,503,276
26	-	-	-		904,980	(904,980)		18,149	1,616,445
27	-	-	-		725,381	(725,381)		11,096	902,160
28	-	-	-		545,162	(545,162)		5,572	362,570
29	-	-	 -		364,167	(364,167)		1,597	0
			\$ 55,743,718	\$ 5	58,652,499		\$	2,908,781	

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area U

Impact Fee Project Name <sup>(1)</sup>	Impact Fee Project No. <sup>(1)</sup>	Cost in Service Area <sup>(1)</sup>	Impact Fee Recoverable Cost <sup>(2)</sup>	Debt Funded <sup>(3)</sup> <u>Existing</u> <u>Proposed</u>	Non-Debt <u>Funded<sup>(3)</sup></u>	Impact Fee Recoverable Cost
Old Weetherford Rd (1)	U-1	\$ 1.800.000	\$ 617,670	\$ - \$ 308.8	DE \$ 200.03E	¢ 617.670
Old Weatherford Rd. (1) Old Weatherford Rd. (2)	U-2	\$ 1,800,000 1,691,000	'	- 5 300,0 - 290,1	35 \$ 308,835 33 290,133	
Walsh Ranch Pkwy. (1)	U-3	5,448,000	•	- 934,7	•	•
Walsh Ranch Pkwy. (2)	U-4	11,976,000	• •	•	,	· ·
Walsh Ranch Pkwy. (3)	U-5	1,882,000	• •	- 2,054,7 - 322,9	· ·	· ·
Walsh Ranch Pkwy. (4)	U-6	15,859,000	•	- 2,721,0	•	•
, , ,	U-7		• •		· ·	· ·
Walsh Ranch Pkwy. (5)	_	18,885,000	· ·	- 3,240,1		
Walsh Ranch Minor #4	U-8	6,206,000	, ,	- 1,064,7	, ,	, ,
Walsh Ranch Minor #1 (1)	U-9	8,955,000	, ,	- 1,536,4	, ,	· ·
Walsh Ranch Minor #1 (2)	U-10	8,716,000	• •	- 1,495,4		· ·
Walsh Ranch Minor #1 (3)	U-11	2,762,000	•	- 473,8	•	•
Walsh Ranch Minor #1 (4)	U-12	4,528,000	• •	- 776,8	•	1,553,783
Walsh Ranch Major #1 (1)	U-13	5,632,000	1,932,620	- 966,3	10 966,310	1,932,620
Walsh Ranch Major #1 (2)	U-14	12,421,000	4,262,265	- 2,131,1	33 2,131,133	4,262,265
Walsh Ranch Major #1 (3)	U-15	5,912,000	2,028,702	- 1,014,3	51 1,014,351	2,028,702
Walsh Ranch Minor #3	U-16	6,118,000	2,099,391	- 1,049,6	96 1,049,696	2,099,391
Walsh Ranch Minor #2 (1)	U-17	7,064,000	2,424,011	- 1,212,0	06 1,212,006	2,424,011
Walsh Ranch Minor #2 (2)	U-18	4,997,000	1,714,720	- 857,3	60 857,360	1,714,720
Westpoint Blvd. (5)	U-19	3,780,000	1,297,107	- 648,5	53 648,553	1,297,107
2013 Transportation Impact Fee		10,000	3,431	- 1,7	1,716	3,431
Т	otal	\$ 134,642,000	\$ 46,202,395	\$ - \$ 23,101,1	98 \$ 23,101,198	

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area U

 2012 Population (All Service Areas)<sup>(1)</sup>
 767,810

 Ten Year Growth in Population (Service Area U)<sup>(2)</sup>
 5,470

 Annual Growth in Population
 10

 years
 547

		1	2		3	4	5	6	7	8	9	10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 2	,310,120	\$ 2,310,	120 \$	2,310,120	\$ 2,310,120	\$ 2,310,120	\$ 2,310,120	\$ 2,310,120	\$ 2,310,120	\$ 2,310,120	\$ 2,310,120	\$ 23,101,198
Population (All Service Areas)		768,357	768,	904	769,451	769,998	770,545	771,092	771,639	772,186	772,733	773,280	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	3.01	\$ 3	3.00 \$	3.00	\$ 3.00	\$ 3.00	\$ 3.00	\$ 2.99	\$ 2.99	\$ 2.99	\$ 2.99	
Annual Growth in Service Area U Population (Cumulative)		547	1,	094	1,641	2,188	2,735	3,282	3,829	4,376	4,923	5,470	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	1,644	\$ 3,	287 \$	4,926	\$ 6,564	\$ 8,199	\$ 9,832	\$ 11,462	\$ 13,090	\$ 14,716	\$ 16,340	\$ 90,060

90,060

(2) Table 6 of Report

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

Transportation Improvement Plan for Impact Fees Impact Fee Calculation Assumptions Appendix E - Service Area W

#### I. General Assumptions

Annual Interest Rate on Deposits (1)

Annual Service Unit Growth (2)

Existing Fund Balance (3)

Portion of Projects Funded by Existing Debt (4)

Non-debt Funded Project Cost (4)

Project Cost Funded Through New Debt (4)

Total Recoverable Project Cost (5)

O .89%

346,680

\$ 346,680

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal (6)	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	344,656	4.26%	20
3	344,656	4.28%	20
4	344,656	4.33%	20
5	344,656	4.40%	20
6	344,656	4.52%	20
7	344,656	4.63%	20
8	344,656	4.67%	20
9	344,656	4.72%	20
10	689,311	4.79%	20
Total	\$ 3.446.555		•

#### III. Capital Expenditure Assumptions

<u>Year</u>		Annual Capital enditures <sup>(8)</sup>
1	\$	689,311
2	φ	689,311
_		,
3		689,311
4		689,311
5		689,311
6		689,311
7		689,311
8		689,311
9		689,311
10		689,311
Total	\$	6,893,110

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
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- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area W

#### I. New Debt Service Detail

<u>Year</u>	Series		Series	Series <u>3</u>	Series	Series <u>5</u>	Series	Series <u>7</u>	Series <u>8</u>	Series <u>9</u>	Series	Total Annual New Debt <u>Service</u>
1	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2		-	25,948	-	-	-	-	-	-	-	-	25,948
3		-	25,948	25,993	-	-	-	-	-	-	-	51,941
4		-	25,948	25,993	26,107	-	-	-	-	-	-	78,048
5		-	25,948	25,993	26,107	26,267	-	-	-	-	-	104,314
6		-	25,948	25,993	26,107	26,267	26,542	-	-	-	-	130,856
7		-	25,948	25,993	26,107	26,267	26,542	26,795	-	-	-	157,651
8		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	-	-	184,539
9		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	-	211,542
10		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
11		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
12		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
13		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
14		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
15		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
16		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
17		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
18		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
19		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
20		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
21		-	25,948	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	265,873
22		-	-	25,993	26,107	26,267	26,542	26,795	26,888	27,003	54,332	239,926
23		-	-	-	26,107	26,267	26,542	26,795	26,888	27,003	54,332	213,933
24		-	-	-	-	26,267	26,542	26,795	26,888	27,003	54,332	187,826
25		-	-	-	-	-	26,542	26,795	26,888	27,003	54,332	161,559
26		-	-		-	-	-	26,795	26,888	27,003	54,332	135,017
27		-	-		-	-	-		26,888	27,003	54,332	108,222
28		-	-	-	-	-	-	-	-	27,003	54,332	81,335
29		-	-	-	-	-	-	-	-	-	54,332	54,332
	\$	- \$	518,953 \$	519,862 \$	522,138 \$	525,334 \$	530,834 \$	535,902 \$	537,750 \$	540,066 \$	1,086,630 \$	5,317,470

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	<u>Ex</u>	Annual Capital penditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ -	\$	689,311	\$	\$ -	\$ -	\$ (71)	\$ 689,240
2	25,948		689,311	(344,656)	-		(142)	370,461
3	51,941		689,311	(344,656)	-		(213)	396,384
4	78,048		689,311	(344,656)	-		(283)	422,420
5	104,314		689,311	(344,656)	-		(354)	448,616
6	130,856		689,311	(344,656)	-		(425)	475,087
7	157,651		689,311	(344,656)	-		(495)	501,811
8	184,539		689,311	(344,656)	-		(566)	528,628
9	211,542		689,311	(344,656)	-		(637)	555,561
10	265,873		689,311	(689,311)	-		(707)	265,166
11	265,873		-	-	-		-	265,873
12	265,873		-	-	-		-	265,873
13	265,873		-	-	-		-	265,873
14	265,873		-	-	-		-	265,873
15	265,873		-	-	-		-	265,873
16	265,873		-	-	-		-	265,873
17	265,873		-	-	-		-	265,873
18	265,873		-	-	-		-	265,873
19	265,873		-	-	-		-	265,873
20	265,873		-	-	-		-	265,873
21	265,873		-	-	-		-	265,873
22	239,926		-	-	-		-	239,926
23	213,933		-	-	-		-	213,933
24	187,826		-	-	-		-	187,826
25	161,559		-	-	-		-	161,559
26	135,017		-	-	-		-	135,017
27	108,222		-	-	-		-	108,222
28	81,335		-	-	-		-	81,335
29	 54,332		-	-	-		-	54,332
	\$ 5,317,470	\$	6,893,110	\$ (3,446,555)	\$ -	\$ -	\$ (3,893)	\$ 8,760,131

<sup>(1)</sup> Appendix E - Service Area W, Page 2 (2) Appendix E - Service Area W, Page 1 (3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service (4) Appendix E - Service Area W, Page 6

## Transportation Improvement Plan for Impact Fees Impact Fee Calculation

Appendix E - Service Area W

		Future Value	Escalation				
	Number of	Interest	Recovery				
	Years to	Rate	Fee	Annual Ser	vice Units	Annual	Expense
<u>Year</u>	<b>End of Period</b>	<u>Factor</u>	<u>Factor</u>	<u>Actual</u>	<b>Escalated</b>	<u>Actual</u>	Escalated
1	29	1.2855	1.0000	926	1,190		\$ 885,998
2	28	1.2742	1.0000	926	1,180	370,461	472,040
3	27	1.2630	1.0000	926	1,169	396,384	500,639
4	26	1.2519	1.0000	926	1,159	422,420	528,843
5	25	1.2410	1.0000	926	1,149	448,616	556,712
6	24	1.2301	1.0000	926	1,139	475,087	584,389
7	23	1.2193	1.0000	926	1,129	501,811	611,847
8	22	1.2086	1.0000	926	1,119	528,628	638,890
9	21	1.1980	1.0000	926	1,109	555,561	665,550
10	20	1.1875	1.0000	926	1,099	265,166	314,877
11	19	1.1771	1.0000	-	-	265,873	312,947
12	18	1.1667	1.0000	-	-	265,873	310,202
13	17	1.1565	1.0000	-	-	265,873	307,481
14	16	1.1463	1.0000	-	-	265,873	304,784
15	15	1.1363	1.0000	-	-	265,873	302,110
16	14	1.1263	1.0000	-	-	265,873	299,460
17	13	1.1164	1.0000	-	-	265,873	296,833
18	12	1.1066	1.0000	-	-	265,873	294,229
19	11	1.0969	1.0000	-	-	265,873	291,648
20	10	1.0873	1.0000	-	-	265,873	289,089
21	9	1.0778	1.0000	-	-	265,873	286,553
22	8	1.0683	1.0000	-	-	239,926	256,319
23	7	1.0590	1.0000	-	-	213,933	226,545
24	6	1.0497	1.0000	-	-	187,826	197,154
25	5	1.0405	1.0000	-	-	161,559	168,095
26	4	1.0313	1.0000	-	-	135,017	139,247
27	3	1.0223	1.0000	-	-	108,222	110,634
28	2	1.0133	1.0000	-	-	81,335	82,418
29	1	1.0044	1.0000	-	-	54,332	54,572
					11,442		\$ 10,290,105
		Annual Interest Ra	te:			0.89%	)
		Present Value of Ir	nitial Impact Fee F	Fund Balance	5	346,680	
		Total Escalated Ex	pense for Entire I	Period	S	10,290,105	
		Less Future Value				447,610	
		Sub-Total			`		
		Total Escalated Se	ervice Units			11,442	
		Impact Fee for Se	rvice Area W		;	860	

### Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area W

<u>Year</u>	Impa <u>Fee</u>		 rvice nits	Impact Fee <u>Revenue</u>	Annual <u>Expenses</u>		Sub-Total		Accumulated <u>Interest</u>			Estimated Fund <u>Balance</u>
Initial											\$	346,680
1	\$	860	\$ 926	\$ 796,386	\$	689,240	\$	107,146	\$	3,542		457,368
2		860	926	796,386		370,461		425,924		5,932		889,225
3		860	926	796,386		396,384		400,002		9,640		1,298,866
4		860	926	796,386		422,420		373,966		13,150		1,685,982
5		860	926	796,386		448,616		347,770		16,460		2,050,212
6		860	926	796,386		475,087		321,299		19,566		2,391,077
7		860	926	796,386		501,811		294,575		22,465		2,708,117
8		860	926	796,386		528,628		267,758		25,152		3,001,026
9		860	926	796,386		555,561		240,825		27,625		3,269,476
10		860	926	796,386		265,166		531,220		31,286		3,831,981
11		-	-	-		265,873		(265,873)		32,737		3,598,845
12		-	-	-		265,873		(265,873)		30,673		3,363,644
13		-	-	-		265,873		(265,873)		28,592		3,126,363
14		-	-	-		265,873		(265,873)		26,492		2,886,981
15		-	-	-		265,873		(265,873)		24,373		2,645,481
16		-	-	-		265,873		(265,873)		22,236		2,401,843
17		-	-	-		265,873		(265,873)		20,080		2,156,050
18		-	-	-		265,873		(265,873)		17,905		1,908,081
19		-	-	-		265,873		(265,873)		15,710		1,657,917
20		-	-	-		265,873		(265,873)		13,496		1,405,540
21		-	-	-		265,873		(265,873)		11,263		1,150,929
22		-	-	-		239,926		(239,926)		9,124		920,127
23		-	-	-		213,933		(213,933)		7,196		713,391
24		-	-	-		187,826		(187,826)		5,482		531,047
25		-	-	-		161,559		(161,559)		3,985		373,473
26		-	-	-		135,017		(135,017)		2,708		241,164
27		-	-	-		108,222		(108,222)		1,655		134,597
28		-	-	-		81,335		(81,335)		831		54,093
29		-	-	 -		54,332		(54,332)		238		0
				\$ 7,963,859	\$	8,760,131			\$	449,593		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area W

	Impact Fee	Cost in			Impact Fee	Debt Fu	nde	d <sup>(3)</sup>		Non-Debt	Impact Fee								
Impact Fee Project Name <sup>(1)</sup>	Project No. (1)	Se	ervice Area <sup>(1)</sup>	Re	ecoverable Cost <sup>(2)</sup>		Existing Proposed		Proposed		<u>Proposed</u>		Proposed		<u>Proposed</u>		Funded <sup>(3)</sup>	Re	coverable Cost
Dutch Branch Rd.	W-1	\$	1,182,000	\$	655,620	\$	-	\$	327,810	\$	327,810	\$	655,620						
Harris Pwky.	W-2		1,256,097		696,720		-		348,360		348,360		696,720						
Granbury Rd. (1)	W-3		1,191,000		660,612		-		330,306		330,306		660,612						
Lakeside Dr.	W-4		6,634,000		3,679,683		-		1,839,841		1,839,841		3,679,683						
Dirks Rd. (1)	W-5, Y-1		898,874		498,579		-		249,289		249,289		498,579						
Dirks Rd. (2)	W-6, Y-2		1,239,874		687,721		-		343,861		343,861		687,721						
2013 Transportation Impact Fee Study			25,556		14,175		-		7,087		7,087		14,175						
	Total	\$	12,427,400	\$	6,893,110	\$	-	\$	3,446,555	\$	3,446,555	\$	6,893,110						

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area W

2012 Population (All Service Areas) <sup>(1)</sup>	767,810
Ten Year Growth in Population (Service Area W) <sup>(2)</sup>	1,579
Annual Growth in Population	10_year 158

	1	2	3	3	4		5	6	7	8	9		10	Tot	al
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 344,656	\$ 344,656 \$	34	44,656 \$	344,65	6 \$	344,656 \$	344,656	\$ 344,656 \$	344,656	\$ 344,	656 <b>\$</b>	344,656	\$ 3,44	46,555
Population (All Service Areas)	767,968	768,126	76	68,284	768,44	2	768,600	768,758	768,915	769,073	769,	231	769,389		
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$ 0.45	\$ 0.45 \$		0.45 \$	0.4	5 \$	0.45 \$	0.45	\$ 0.45 \$	0.45	\$ (	.45 \$	0.45		
Annual Growth in Service Area W Population (Cumulative)	158	316		474	63	2	790	948	1,105	1,263	1,	121	1,579		
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$ 71 \$	\$ 142 \$		213 \$	28	3 \$	354 \$	425	\$ 495 \$	566	\$	637 \$	707	\$	3,893

3,893

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area X

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	1,296
Existing Fund Balance (3)	697,005
Portion of Projects Funded by Existing Debt (4)	\$ -
Non-debt Funded Project Cost (4)	12,708,262
Project Cost Funded Through New Debt (4)	12,708,262
Total Recoverable Project Cost (5)	\$ 25,416,523

#### **II. New Debt Issues Assumptions**

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	1,270,826	4.26%	20
3	1,270,826	4.28%	20
4	1,270,826	4.33%	20
5	1,270,826	4.40%	20
6	1,270,826	4.52%	20
7	1,270,826	4.63%	20
8	1,270,826	4.67%	20
9	1,270,826	4.72%	20
10	2,541,652	4.79%	20
Total	\$ 12,708,262	-	

#### III. Capital Expenditure Assumptions

<u>Year</u>	Annual Capital Expenditures <sup>(8)</sup>
1	\$ 2,541,652
2	2,541,652
3	2,541,652
4	2,541,652
5	2,541,652
6	2,541,652
7	2,541,652
8	2,541,652
9	2,541,652
10	2,541,652
Total	\$ 25,416,523

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area X

#### I. New Debt Service Detail

Year	Series 1		Series 2	Series <u>3</u>	Series	Series <u>5</u>	Series	Series 7	Series <u>8</u>	Series 9	Series	Total Annual New Debt Service
1	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2		-	95,675	-	-	-	-	-	-	-	-	95,675
3		-	95,675	95,843	-	-	-	-	-	-	-	191,518
4		-	95,675	95,843	96,262	-	-	-	-	-	-	287,780
5		-	95,675	95,843	96,262	96,851	-	-	-	-	-	384,632
6		-	95,675	95,843	96,262	96,851	97,866	-	-	-	-	482,497
7		-	95,675	95,843	96,262	96,851	97,866	98,800	-	-	-	581,297
8		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	-	-	680,438
9		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	-	780,005
10		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
11		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
12		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
13		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
14		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
15		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
16		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
17		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
18		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
19		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
20		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
21		-	95,675	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	980,338
22		-	-	95,843	96,262	96,851	97,866	98,800	99,141	99,567	200,333	884,663
23		-	-	-	96,262	96,851	97,866	98,800	99,141	99,567	200,333	788,820
24		-	-	-	-	96,851	97,866	98,800	99,141	99,567	200,333	692,558
25		-	-	-	-	-	97,866	98,800	99,141	99,567	200,333	595,707
26		-	-	-	-	-	-	98,800	99,141	99,567	200,333	497,841
27		-	-		-			-	99,141	99,567	200,333	399,041
28		-	-	-	-	-	-	-	-	99,567	200,333	299,901
29		-	-		-	-	-	-	-	-	200,333	200,333
	\$	- \$	1,913,502 \$	1,916,854 \$	1,925,248 \$	1,937,030 \$	1,957,312 \$	1,975,996 \$	1,982,813 \$	1,991,349 \$	4,006,662 \$	19,606,765

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	(	Annual Capital enditures <sup>(2)</sup>	Annual Bond Proceeds <sup>(2)</sup>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense	
1	\$ -	\$	2,541,652	\$	\$ -	\$	\$ (468)	\$ 2,541,184	
2	95,675		2,541,652	(1,270,826)	-		(936)	1,365,565	
3	191,518		2,541,652	(1,270,826)	-		(1,404)	1,460,940	
4	287,780		2,541,652	(1,270,826)	-		(1,871)	1,556,735	
5	384,632		2,541,652	(1,270,826)	-		(2,338)	1,653,120	
6	482,497		2,541,652	(1,270,826)	-		(2,805)	1,750,519	
7	581,297		2,541,652	(1,270,826)	-		(3,271)	1,848,852	
8	680,438		2,541,652	(1,270,826)	-		(3,737)	1,947,527	
9	780,005		2,541,652	(1,270,826)	-		(4,203)	2,046,629	
10	980,338		2,541,652	(2,541,652)	-		(4,668)	975,670	
11	980,338		-	-	-		-	980,338	
12	980,338		-	-	-		-	980,338	
13	980,338		-	-	-		-	980,338	
14	980,338		-	-	-		-	980,338	
15	980,338		-	-	-		-	980,338	
16	980,338		-	-	-		-	980,338	
17	980,338		-	-	-		-	980,338	
18	980,338		-	-	-		-	980,338	
19	980,338		-	-	-		-	980,338	
20	980,338		-	-	-		-	980,338	
21	980,338		-	-	-		-	980,338	
22	884,663		-	-	-		-	884,663	
23	788,820		-	-	-		-	788,820	
24	692,558		-	-	-		-	692,558	
25	595,707		-	-	-		-	595,707	
26	497,841		-	-	-		-	497,841	
27	399,041		-	-	-		-	399,041	
28	299,901		-	-	-		-	299,901	
29	 200,333		-	-	-		-	200,333	
	\$ 19,606,765	\$	25,416,523	\$ (12,708,262)	\$ -	\$ -	\$ (25,702)	\$ 32,289,325	

<sup>(1)</sup> Appendix E - Service Area X, Page 2
(2) Appendix E - Service Area X, Page 1
(2) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area X, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area X

		Future Value	e Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vice Units		Annual E	xpe	ense
<u>Year</u>	End of Period	Factor	Factor	Actual	Escalated	-	Actual	-	Escalated
						_		٠	
1	29	1.2855	1.0000	1,296	1,666	\$	2,541,184	\$	3,266,618
2	28	1.2742	1.0000	1,296	1,651		1,365,565		1,739,995
3	27	1.2630	1.0000	1,296	1,637		1,460,940		1,845,191
4	26	1.2519	1.0000	1,296	1,622		1,556,735		1,948,934
5	25	1.2410	1.0000	1,296	1,608		1,653,120		2,051,446
6	24	1.2301	1.0000	1,296	1,594		1,750,519		2,153,258
7	23	1.2193	1.0000	1,296	1,580		1,848,852		2,254,264
8	22	1.2086	1.0000	1,296	1,566		1,947,527		2,353,746
9	21	1.1980	1.0000	1,296	1,552		2,046,629		2,451,820
10	20	1.1875	1.0000	1,296	1,539		975,670		1,158,580
11	19	1.1771	1.0000	-	-		980,338		1,153,911
12	18	1.1667	1.0000	-	-		980,338		1,143,788
13	17	1.1565	1.0000	-	-		980,338		1,133,755
14	16	1.1463	1.0000	-	_		980,338		1,123,809
15	15	1.1363	1.0000	-	-		980,338		1,113,950
16	14	1.1263	1.0000	-	-		980,338		1,104,178
17	13	1.1164	1.0000	-	-		980,338		1,094,492
18	12	1.1066	1.0000	-	-		980,338		1,084,891
19	11	1.0969	1.0000	-	-		980,338		1,075,374
20	10	1.0873	1.0000	-	-		980,338		1,065,940
21	9	1.0778	1.0000	-	-		980,338		1,056,589
22	8	1.0683	1.0000	-	_		884,663		945,108
23	7	1.0590	1.0000	-	-		788,820		835,325
24	6	1.0497	1.0000	-	-		692,558		726,954
25	5	1.0405	1.0000	-	-		595,707		619,807
26	4	1.0313	1.0000	-	-		497,841		513,438
27	3	1.0223	1.0000	-	-		399,041		407,933
28	2	1.0133	1.0000	-	-		299,901		303,893
29	1	1.0044	1.0000	-	-		200,333		201,220
					16,016			\$	37,928,207
		Annual Interest Ra	ıte:				0.89%		
		Present Value of I	nitial Impact Fee F	Fund Balance	:	\$	697,005		
		Tatal Facilities 15		Danian		•	07.000.007		
		Total Escalated Ex				\$ :	37,928,207		
		Less Future Value	oi iniliai impact F	ee Fund Balanc	_	<b>.</b>	899,927	į	
		Sub-Total			;	\$ :	37,028,280		
		Total Escalated Se	ervice Units				16,016		
		Impact Fee for Se	ervice Area X		;	\$	2,312		

### Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area X

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>		Annual Expenses		<u>Sub-Total</u>	Accumulated Interest			Estimated Fund <u>Balance</u>
Initial										\$	697,005
1	\$ 2,312	\$ 1,296	\$ 2,996,070	\$	2,541,184	\$	454,886	\$	8,181		1,160,072
2	2,312	1,296	2,996,070		1,365,565		1,630,505		17,482		2,808,058
3	2,312	1,296	2,996,070		1,460,940		1,535,130		31,644		4,374,832
4	2,312	1,296	2,996,070		1,556,735		1,439,335		45,086		5,859,253
5	2,312	1,296	2,996,070		1,653,120		1,342,950		57,797		7,260,000
6	2,312	1,296	2,996,070		1,750,519		1,245,551		69,763		8,575,313
7	2,312	1,296	2,996,070		1,848,852		1,147,217		80,968		9,803,499
8	2,312	1,296	2,996,070		1,947,527		1,048,543		91,401		10,943,442
9	2,312	1,296	2,996,070		2,046,629		949,441		101,051		11,993,934
10	2,312	1,296	2,996,070		975,670		2,020,399		115,087		14,129,420
11	-	-	-		980,338		(980,338)		120,707		13,269,789
12	-	-	-		980,338		(980,338)		113,100		12,402,550
13	-	-	-		980,338		(980,338)		105,425		11,527,637
14	-	-	-		980,338		(980,338)		97,682		10,644,980
15	-	-	-		980,338		(980,338)		89,870		9,754,512
16	-	-	-		980,338		(980,338)		81,989		8,856,163
17	-	-	-		980,338		(980,338)		74,039		7,949,864
18	-	-	-		980,338		(980,338)		66,018		7,035,544
19	-	-	-		980,338		(980,338)		57,927		6,113,132
20	-	-	-		980,338		(980,338)		49,763		5,182,557
21	-	-	-		980,338		(980,338)		41,528		4,243,746
22	-	-	-		884,663		(884,663)		33,643		3,392,726
23	-	-	-		788,820		(788,820)		26,535		2,630,440
24	-	-	-		692,558		(692,558)		20,215		1,958,097
25	-	-	-		595,707		(595,707)		14,693		1,377,084
26	-	-	-		497,841		(497,841)		9,984		889,227
27	-	-	-		399,041		(399,041)		6,104		496,290
28	-	-	-		299,901		(299,901)		3,065		199,454
29	-	-	 <u>-</u>		200,333	_	(200,333)		879	_	0
			\$ 29,960,696	\$	32,289,325			\$	1,631,624		

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area X

	Impact Fee	Cost in	Impact Fee	Debt Fu	nded <sup>(3)</sup>	Non-Debt	Impact Fee	
Impact Fee Project Name <sup>(1)</sup>	Project No. (1)	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	<u>Existing</u>	<u>Proposed</u>	Funded <sup>(3)</sup>	Recoverable Cost	
Seminary Dr. (1)	X-1	\$ 1,573,000	\$ 641,870	\$ -	\$ 320,935	\$ 320,935	\$ 641,870	
Seminary Dr. (2)	X-2	1,256,000	512,517	-	256,258	256,258	512,517	
Oak Grove Rd. (1)	X-3	1,497,000	610,858	-	305,429	305,429	610,858	
Altamesa Blvd. (1)	X-4	9,423,000	3,845,099	-	1,922,550	1,922,550	3,845,099	
Altamesa Blvd. (2)	X-5	4,083,000	1,666,087	-	833,044	833,044	1,666,087	
Joel East Rd.	X-6	5,473,000	2,233,283	-	1,116,642	1,116,642	2,233,283	
Everman Pkwy. (1)	Z-1, X-7	2,384,500	973,006	-	486,503	486,503	973,006	
Everman Pkwy. (2)	Z-2, X-8	513,000	209,332	-	104,666	104,666	209,332	
Hemphill St. (1)	X-9	1,413,000	576,581	-	288,291	288,291	576,581	
Hemphill St. (2)	X-10	2,732,000	1,114,805	-	557,403	557,403	1,114,805	
Hemphill St. (3)	X-11	1,509,000	615,754	-	307,877	307,877	615,754	
Hemphill St. (4)	X-12	1,059,000	432,130	-	216,065	216,065	432,130	
Oak Grove Rd. (2)	X-13	871,000	355,416	-	177,708	177,708	355,416	
Oak Grove Rd. (3)	X-14	11,541,000	4,709,359	-	2,354,679	2,354,679	4,709,359	
Wichita St. (1)	X-15	1,250,000	510,068	-	255,034	255,034	510,068	
Wichita St. (2)	X-16	1,107,000	451,717	-	225,858	225,858	451,717	
Forest Hill Dr. (1)	X-17	4,723,000	1,927,242	-	963,621	963,621	1,927,242	
Anglin Dr.	X-18	5,399,000	2,203,087	-	1,101,544	1,101,544	2,203,087	
Dick Price Rd.	X-19	2,194,000	895,272	-	447,636	447,636	895,272	
Enon Rd.	X-20	2,261,000	922,612	-	461,306	461,306	922,612	
2013 Transportation Impact Fee		25,555	10,428	-	5,214	5,214	10,428	
	Total	\$ 62,287,055	\$ 25,416,523	\$ -	\$ 12,708,262	\$ 12,708,262	\$ 25,416,523	

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area X

 2012 Population (All Service Areas)<sup>(1)</sup>
 767,810

 Ten Year Growth in Population (Service Area X)<sup>(2)</sup>
 2,831

 Annual Growth in Population
 10

 years
 283

		1	2		3	4	5		6	7	8	9	10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 1,2	270,826	\$ 1,270,826	s \$ ^	1,270,826	\$ 1,270,826	\$ 1,270	0,826	\$ 1,270,826	\$ 1,270,826	\$ 1,270,826	\$ 1,270,826	\$ 1,270,826	\$ 12,708,262
Population (All Service Areas)	7	768,093	768,376		768,659	768,942	769	9,225	769,508	769,791	770,075	770,358	770,641	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	1.65	\$ 1.65	\$	1.65	\$ 1.65	\$	1.65	\$ 1.65	\$ 1.65	\$ 1.65	\$ 1.65	\$ 1.65	
Annual Growth in Service Area X Population (Cumulative)		283	566		849	1,132	1	1,415	1,698	1,981	2,265	2,548	2,831	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	468	\$ 936	\$	1,404	\$ 1,871	\$ 2	2,338	\$ 2,805	\$ 3,271	\$ 3,737	\$ 4,203	\$ 4,668	\$ 25,702

25,702

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees
Impact Fee Calculation Assumptions
Appendix E - Service Area Y

#### I. General Assumptions

Annual Interest Rate on Deposits (1)	0.89%
Annual Service Unit Growth (2)	4,270
Existing Fund Balance (3)	\$ 65,665
Portion of Projects Funded by Existing Debt (4)	\$ 7,015,707
Non-debt Funded Project Cost (4)	38,880,146
Project Cost Funded Through New Debt (4)	38,880,146
Total Recoverable Project Cost (5)	\$ 84 775 998

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	3,888,015	4.26%	20
3	3,888,015	4.28%	20
4	3,888,015	4.33%	20
5	3,888,015	4.40%	20
6	3,888,015	4.52%	20
7	3,888,015	4.63%	20
8	3,888,015	4.67%	20
9	3,888,015	4.72%	20
10	7,776,029	4.79%	20
Total	\$ 38,880,146	_	

#### III. Capital Expenditure Assumptions

		Annual Capital
<u>Year</u>	Exp	enditures <sup>(8)</sup>
1	\$	8,477,600
2		8,477,600
3		8,477,600
4		8,477,600
5		8,477,600
6		8,477,600
7		8,477,600
8		8,477,600
9		8,477,600
10		8,477,600
Total	\$	84,775,998

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area Y

#### I. New Debt Service Detail

I. New D	Debt Service Detail										
<u>Year</u>	Series <u>1</u>	Series 2	Series <u>3</u>	Series	Series <u>5</u>	Series <u>6</u>	Series 7	Series <u>8</u>	Series <u>9</u>	Series 10	Total Annual New Debt <u>Service</u>
1	\$ - 5	· ·	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2	-	292,712	-	-	-	-	-	-	-	-	292,712
3	-	292,712	293,225		-	-	-	-	-	-	585,937
4	-	292,712	293,225	294,509		-	-	-	-	-	880,446
5	-	292,712	293,225	294,509	296,311	-	-	-	-	-	1,176,757
6	-	292,712	293,225	294,509	296,311	299,414		-	-	-	1,476,171
7	-	292,712	293,225	294,509	296,311	299,414	302,272		-	-	1,778,443
8	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	-	-	2,081,757
9	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	-	2,386,378
10	•	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
11	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
12	•	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
13	•	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
14	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
15	•	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
16	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
17	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
18	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
19	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
20	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
21	-	292,712	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,999,285
22	-	-	293,225	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,706,573
23	-	-	-	294,509	296,311	299,414	302,272	303,315	304,621	612,907	2,413,348
24	-	-	-	-	296,311	299,414	302,272	303,315	304,621	612,907	2,118,839
25	-	-	-	-	-	299,414	302,272	303,315	304,621	612,907	1,822,528
26	-	•	-	-	-	-	302,272	303,315	304,621	612,907	1,523,114
27	-	-	-	-	-	-	-	303,315	304,621	612,907	1,220,842
28	-	•	-	-	-	-	-	-	304,621	612,907	917,527
29		-	-	-	-	-	-	-	-	612,907	612,907
	\$ - 5	\$ 5,854,241 \$	5,864,497 \$	5,890,177 \$	5,926,224 \$	5,988,276 \$	6,045,439 \$	6,066,293 \$	6,092,410 \$	12,258,135 \$	59,985,693

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>	Annual Capital enditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>	Existing Annual Debt Service <sup>(3)</sup>	Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>	Total Expense
1	\$ _	\$ 8,477,600	\$ _	\$ 697,854	\$ (5,858,651) \$	(4,872)	\$ 3,311,930
2	292,712	8,477,600	(3,888,015)	624,741		(9,732)	5,497,306
3	585,937	8,477,600	(3,888,015)	612,959		(14,580)	5,773,901
4	880,446	8,477,600	(3,888,015)	600,036		(19,416)	6,050,651
5	1,176,757	8,477,600	(3,888,015)	587,315		(24,240)	6,329,417
6	1,476,171	8,477,600	(3,888,015)	574,594		(29,051)	6,611,299
7	1,778,443	8,477,600	(3,888,015)	561,755		(33,851)	6,895,932
8	2,081,757	8,477,600	(3,888,015)	290,609		(38,639)	6,923,313
9	2,386,378	8,477,600	(3,888,015)	283,940		(43,415)	7,216,488
10	2,999,285	8,477,600	(7,776,029)	277,271		(48,179)	3,929,947
11	2,999,285	-	- 1	270,601		- 1	3,269,886
12	2,999,285	-	-	263,932		-	3,263,217
13	2,999,285	-	-	257,263		-	3,256,547
14	2,999,285	-	-	250,593		-	3,249,878
15	2,999,285	-	-	243,708		-	3,242,993
16	2,999,285	-	-	237,037		-	3,236,322
17	2,999,285	-	-	193,104		-	3,192,389
18	2,999,285	-	-	188,395		-	3,187,679
19	2,999,285	-	-	-		-	2,999,285
20	2,999,285	-	-	-		-	2,999,285
21	2,999,285	-	-	-		-	2,999,285
22	2,706,573	-	-	-		-	2,706,573
23	2,413,348	-	-	-		-	2,413,348
24	2,118,839	-	-	-		-	2,118,839
25	1,822,528	-	-	-		-	1,822,528
26	1,523,114	-	-	-		-	1,523,114
27	1,220,842	-	-	-		-	1,220,842
28	917,527	-	-	-		-	917,527
29	 612,907	-	-	-		-	612,907
	\$ 59,985,693	\$ 84,775,998	\$ (38,880,146)	\$ 7,015,707	\$ (5,858,651) \$	(265,976)	\$ 106,772,625

<sup>(1)</sup> Appendix E - Service Area Y, Page 2
(2) Appendix E - Service Area Y, Page 1
(3) Eligible outstanding delt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area Y, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area Y

		Future Value	Escalation						
	Number of	Interest	Recovery						
	Years to	Rate	Fee	Annual Ser	vice Units		Annual E	-xn	ense
<u>Year</u>	End of Period	Factor	Factor	Actual	Escalated		Actual	-//	Escalated
<u>1 0 u.                                   </u>	<u> </u>	<u> </u>	1 40101	riotaar	<u> </u>		rotaar		<u> </u>
1	29	1.2855	1.0000	4,270	-,	\$	3,311,930	\$	4,257,390
2	28	1.2742	1.0000	4,270	5,441		5,497,306		7,004,636
3	27	1.2630	1.0000	4,270	5,394		5,773,901		7,292,532
4	26	1.2519	1.0000	4,270	5,346		6,050,651		7,575,034
5	25	1.2410	1.0000	4,270	5,299		6,329,417		7,854,519
6	24	1.2301	1.0000	4,270	5,253		6,611,299		8,132,350
7	23	1.2193	1.0000	4,270	5,207		6,895,932		8,408,057
8	22	1.2086	1.0000	4,270	5,161		6,923,313		8,367,390
9	21	1.1980	1.0000	4,270	5,116		7,216,488		8,645,207
10	20	1.1875	1.0000	4,270	5,071		3,929,947		4,666,697
11	19	1.1771	1.0000	-	-		3,269,886		3,848,831
12	18	1.1667	1.0000	-	-		3,263,217		3,807,287
13	17	1.1565	1.0000	-	-		3,256,547		3,766,175
14	16	1.1463	1.0000	-	-		3,249,878		3,725,491
15	15	1.1363	1.0000	-	-		3,242,993		3,684,987
16	14	1.1263	1.0000	-	-		3,236,322		3,645,146
17	13	1.1164	1.0000	-	-		3,192,389		3,564,122
18	12	1.1066	1.0000	-	-		3,187,679		3,527,644
19	11	1.0969	1.0000	-	-		2,999,285		3,290,040
20	10	1.0873	1.0000	-	-		2,999,285		3,261,179
21	9	1.0778	1.0000	-	-		2,999,285		3,232,570
22	8	1.0683	1.0000	-	-		2,706,573		2,891,501
23	7	1.0590	1.0000	-	-		2,413,348		2,555,624
24	6	1.0497	1.0000	-	-		2,118,839		2,224,070
25	5	1.0405	1.0000	-	-		1,822,528		1,896,261
26	4	1.0313	1.0000	-	-		1,523,114		1,570,832
27	3	1.0223	1.0000	-	-		1,220,842		1,248,045
28	2	1.0133	1.0000	-	-		917,527		929,743
29	1	1.0044	1.0000	-	-		612,907		615,619
					52,778			\$	125,488,978
		Annual Interest Ra	te:				0.89%		
		Present Value of Ir	nitial Impact Fee F	Fund Balance		\$	65,665		
		Total Escalated Ex	roopee for Entire	Pariod		Ф	125 400 070		
			•		2	\$	125,488,978		
		Less Future Value	oi iriiliai irripact F	tee rund balance	_	Ф	84,782	•	
		Sub-Total				\$	125,404,196		
		Total Escalated Se	ervice Units				52,778		
		Impact Fee for Se		\$	2,376				

# Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area Y

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>		Annual Expenses		<u>Sub-Total</u>		Accumulated <u>Interest</u>		Estimated Fund <u>Balance</u>
Initial											\$ 65,665
1	\$ 2,376	\$ 4,270	\$	10,146,831	\$	3,311,930	\$	6,834,901	\$	30,826	6,931,391
2	2,376	4,270		10,146,831		5,497,306		4,649,525		81,917	11,662,833
3	2,376	4,270		10,146,831		5,773,901		4,372,930		122,566	16,158,330
4	2,376	4,270		10,146,831		6,050,651		4,096,180		161,127	20,415,637
5	2,376	4,270		10,146,831		6,329,417		3,817,413		197,570	24,430,621
6	2,376	4,270		10,146,831		6,611,299		3,535,532		231,856	28,198,009
7	2,376	4,270		10,146,831		6,895,932		3,250,899		263,938	31,712,846
8	2,376	4,270		10,146,831		6,923,313		3,223,518		294,923	35,231,286
9	2,376	4,270		10,146,831		7,216,488		2,930,343		324,764	38,486,393
10	2,376	4,270		10,146,831		3,929,947		6,216,884		368,114	45,071,391
11	-	-		-		3,269,886		(3,269,886)		384,413	42,185,918
12	-	-		-		3,263,217		(3,263,217)		358,906	39,281,606
13	-	-		-		3,256,547		(3,256,547)		333,232	36,358,291
14	-	-		-		3,249,878		(3,249,878)		307,390	33,415,803
15	-	-		-		3,242,993		(3,242,993)		281,380	30,454,190
16	-	-		-		3,236,322		(3,236,322)		255,199	27,473,067
17	-	-		-		3,192,389		(3,192,389)		229,010	24,509,688
18	-	-		-		3,187,679		(3,187,679)		202,805	21,524,814
19	-	-		-		2,999,285		(2,999,285)		177,223	18,702,752
20	-	-		-		2,999,285		(2,999,285)		152,248	15,855,715
21	-	-		-		2,999,285		(2,999,285)		127,051	12,983,482
22	-	-		-		2,706,573		(2,706,573)		102,927	10,379,836
23	-	-		-		2,413,348		(2,413,348)		81,182	8,047,671
24	-	-		-		2,118,839		(2,118,839)		61,846	5,990,678
25	-	-		-		1,822,528		(1,822,528)		44,953	4,213,103
26	-	-		-		1,523,114		(1,523,114)		30,546	2,720,536
27	-	-		-		1,220,842		(1,220,842)		18,675	1,518,368
28	-	-		-		917,527		(917,527)		9,378	610,218
29	-	-		<u>-</u>		612,907	_	(612,907)		2,688	(0)
			\$	101,468,309	\$10	06,772,625			\$	5,238,651	

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area Y

	Impact Fee			ınded <sup>(3)</sup>	Non-Debt	Impact Fee	
Impact Fee Project Name <sup>(1)</sup>	Project No. <sup>(1)</sup>	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	<u>Existing</u>	Proposed	Funded <sup>(3)</sup>	Recoverable Cost
Dirks Rd. (1)	W-5, Y-1	\$ 898,874	\$ 647,605	\$ -	\$ 323,803	\$ 323,803	\$ 647,605
Dirks Rd. (2)	Y-2	1,239,874	893,283	-	446,641	446,641	893,283
Columbus Trl. (1)	Y-3	1,331,000	958,936	-	479,468	479,468	958,936
Columbus Trl. (2)	Y-4	1,234,000	889,051	-	444,526	444,526	889,051
Sycamore School Rd. (1)	Y-5	1,262,000	909,224	-	454,612	454,612	909,224
Sycamore School Rd. (2)	Y-6	653,000	470,462	-	235,231	235,231	470,462
Sycamore School Rd. (3)	Y-7	130,679	94,149	58,894	17,628	17,628	94,149
Risinger Rd. (1)	Y-8	1,033,000	744,238	-	372,119	372,119	744,238
Risinger Rd. (2)	Y-9	2,534,000	1,825,653	-	912,827	912,827	1,825,653
Risinger Rd. (3)	Y-10	3,260,000	2,348,709	-	1,174,355	1,174,355	2,348,709
McPherson Blvd. (1)	Y-11	1,134,475	817,347	-	408,674	408,674	817,347
McPherson Blvd. (2)	Y-12	1,887,880	1,360,148	882,534	238,807	238,807	1,360,148
McPherson Blvd. (3)	Y-13	4,392,000	3,164,273	-	1,582,137	1,582,137	3,164,273
Stewart Feltz Rd. (1)	Y-14	1,808,000	1,302,597	-	651,299	651,299	1,302,597
Stewart Feltz Rd. (2)	Y-15	1,286,000	926,515	-	463,258	463,258	926,515
Sunflower Ridge Rd.	Y-16	617,000	444,526	-	222,263	222,263	444,526
Cleburne Crowley Rd. (1)	Y-17	6,583,000	4,742,808	-	2,371,404	2,371,404	4,742,808
Cleburne Crowley Rd. (2)	Y-18	3,494,000	2,517,298	-	1,258,649	1,258,649	2,517,298
Cleburne Rd.	Y-19	1,901,000	1,369,600	-	684,800	684,800	1,369,600
Bryant Irvin (1)	Y-20	1,893,000	1,363,836	-	681,918	681,918	1,363,836
Bryant Irvin (2)	Y-21	5,414,000	3,900,586	-	1,950,293	1,950,293	3,900,586
Bryant Irvin (3)	Y-22	13,717,000	9,882,590	-	4,941,295	4,941,295	9,882,590
Brewer Blvd. (1)	Y-23	4,565,000	3,288,913	-	1,644,457	1,644,457	3,288,913
Brewer Blvd. (2)	Y-24	3,270,000	2,355,914	-	1,177,957	1,177,957	2,355,914
Brewer Blvd. (3)	Y-25	8,599,000	6,195,261	-	3,097,630	3,097,630	6,195,261
Granbury Rd. (2)	Y-26	1,648,291	1,187,533	742,848	222,342	222,342	1,187,533
Granbury/Summer Creek Dr.	Y-27	595,316	428,903	268,296	80,304	80,304	428,903
Summer Creek Dr. (1)	Y-28	1,458,000	1,050,435	-	525,217	525,217	1,050,435
Summer Creek Dr. (2)	Y-29	2,952,839	2,127,411	1,380,375	373,518	373,518	2,127,411
Summer Creek Dr. (3)	Y-30	1,624,000	1,170,032	759,177	205,427	205,427	1,170,032
Summer Creek Dr. (4)	Y-31	6,254,000	4,505,775	2,923,581	791,097	791,097	4,505,775
Summer Creek Dr. (5)	Y-32	474,000	341,499	-	170,750	170,750	341,499
Summer Creek Dr. (6)	Y-33	10,176,000	7,331,431	-	3,665,715	3,665,715	7,331,431
Cleburne Rd. (1)	Y-34	724,000	521,615	-	260,808	260,808	521,615
Cleburne Rd. (2)	Y-35	1,207,000	869,599	-	434,799	434,799	869,599
Cleburne Rd. (3)	Y-36	1,743,000	1,255,767	-	627,883	627,883	1,255,767
Hulen St. (1)	Y-37	689,000	496,399	-	248,199	248,199	496,399
Hulen St. (2)	Y-38	480,000	345,822	-	172,911	172,911	345,822
Hulen St. (3)	Y-39	3,236,000	2,331,418	-	1,165,709	1,165,709	2,331,418
McCart Ave. (1)	Y-40	1,474,000	1,061,962	-	530,981	530,981	1,061,962
McCart Ave. (2)	Y-41	4,053,000	2,920,036	-	1,460,018	1,460,018	2,920,036
McCart Ave. (3)	Y-42	3,730,000	2,687,327	-	1,343,663	1,343,663	2,687,327
McCart Ave. (4)	Y-43	987,000	711,097	-	355,548	355,548	711,097
2013 Transportation Impact Fee Study		25,556	18,412	-	9,206	9,206	18,412
	Total	\$ 117,668,783	\$ 84,775,998	\$ 7,015,707	\$ 38,880,146	\$ 38,880,146	\$ 84,775,998

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area Y

 2012 Population (All Service Areas)<sup>(1)</sup>
 767,810

 Ten Year Growth in Population (Service Area Y)<sup>(2)</sup>
 9,634

 Annual Growth in Population
 10

 years
 963

		1	2		3	4	5		6	7	8	9	10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 3	888,015	\$ 3,888,01	5 \$ :	3,888,015	\$ 3,888,015	\$ 3,888,0	015 \$	3,888,015	\$ 3,888,015	\$ 3,888,015	\$ 3,888,015	\$ 3,888,015	\$ 38,880,146
Population (All Service Areas)		768,773	769,73	7	770,700	771,664	772,6	627	773,590	774,554	775,517	776,480	777,444	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	5.06	\$ 5.0	5 \$	5.04	\$ 5.04	\$ 5	5.03 \$	5.03	\$ 5.02	\$ 5.01	\$ 5.01	\$ 5.00	
Annual Growth in Service Area Y Population (Cumulative)		963	1,92	7	2,890	3,854	4,8	817	5,780	6,744	7,707	8,670	9,634	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	4,872	\$ 9,73	2 \$	14,580	\$ 19,416	\$ 24,2	240 \$	29,051	\$ 33,851	\$ 38,639	\$ 43,415	\$ 48,179	\$ 265,976

265,976

(1) Estimated 2012 Population as of July 18, 2012

Credit Amount

<sup>(2)</sup> Table 6 of Report

Transportation Improvement Plan for Impact Fees Impact Fee Calculation Assumptions Appendix E - Service Area Z

#### I. General Assumptions

Annual Interest Rate on Deposits (1)

Annual Service Unit Growth (2)

Existing Fund Balance (3)

Portion of Projects Funded by Existing Debt (4)

Non-debt Funded Project Cost (4)

Project Cost Funded Through New Debt (4)

Total Recoverable Project Cost (5)

1,625

\$ 1,423,207

\$ 20,513,864

20,513,864

Total Recoverable Project Cost (5)

\$ 41,027,728

#### II. New Debt Issues Assumptions

<u>Year</u>	Principal <sup>(6)</sup>	Interest (7)	<u>Term</u>
1	\$ -	4.25%	20
2	2,051,386	4.26%	20
3	2,051,386	4.28%	20
4	2,051,386	4.33%	20
5	2,051,386	4.40%	20
6	2,051,386	4.52%	20
7	2,051,386	4.63%	20
8	2,051,386	4.67%	20
9	2,051,386	4.72%	20
10	4,102,773	4.79%	20
Total	\$ 20,513,864		

#### III. Capital Expenditure Assumptions

<u>Year</u>	Annual Capital Expenditures <sup>(8)</sup>
1	\$ 4,102,773
2	4,102,773
3	4,102,773
4	4,102,773
5	4,102,773
6	4,102,773
7	4,102,773
8	4,102,773
9	4,102,773
10	4,102,773
Total	\$ 41,027,728

- (1) Estimated annual return on fund balance based on City's earnings rates
- (2) Derived from Table 6 of the Report
- (3) Per City staff
- (4) Per discussions with City staff and City files
- (5) Table 7, Line 11 of Report
- (6) Per discussions with City staff
- (7) Base interest rate of 4.25% per City staff
- (8) Assumes capital expenditures made in equal annual amounts

City of Fort Worth 2013 Transportation Impact Fee Study
Transportation Improvement Plan for Impact Fees
Debt Service and Expense Summary
Appendix E - Service Area Z

#### I. New Debt Service Detail

Year	Series		Series	Series <u>3</u>	Series	Series 5	Series	Series <u>7</u>	Series	Series	Series 10	Total Annual New Debt <u>Service</u>
1	\$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
2		-	154,440	-	-	-	-	-	-	-	-	154,440
3		-	154,440	154,711	-	-	-	-	-	-	-	309,151
4		-	154,440	154,711	155,388	-	-	-	-	-	-	464,539
5		-	154,440	154,711	155,388	156,339	-	-	-	-	-	620,878
6		-	154,440	154,711	155,388	156,339	157,976	-	-	-	-	778,854
7		-	154,440	154,711	155,388	156,339	157,976	159,484	-	-	-	938,338
8		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	-	-	1,098,373
9		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	-	1,259,096
10		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
11		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
12		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
13		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
14		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
15		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
16		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
17		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
18		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
19		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
20		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
21		-	154,440	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,582,477
22		-	-	154,711	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,428,036
23		-	-	-	155,388	156,339	157,976	159,484	160,034	160,723	323,381	1,273,326
24		-	-	-	-	156,339	157,976	159,484	160,034	160,723	323,381	1,117,938
25		-	-	-	-	-	157,976	159,484	160,034	160,723	323,381	961,598
26		-	-	-		-	-	159,484	160,034	160,723	323,381	803,622
27		-	-	-		-	-	-	160,034	160,723	323,381	644,138
28		-	-	-	-	-	-	-	-	160,723	323,381	484,104
29		-	-	-	-	-	-	-	-	-	323,381	323,381
	\$	- \$	3,088,803 \$	3,094,214 \$	3,107,763 \$	3,126,783 \$	3,159,522 \$	3,189,683 \$	3,200,685 \$	3,214,465 \$	6,467,612 \$	31,649,530

#### II. Summary of Annual Expenses

Year	New Annual Debt Service <sup>(1)</sup>		Annual Capital enditures <sup>(2)</sup>	Annual Bond <u>Proceeds<sup>(2)</sup></u>		Existing Annual Debt Service <sup>(3)</sup>		Funding from Existing Debt Proceeds <sup>(3)</sup>	Annual Credit <sup>(4)</sup>		otal ense
1	\$ _	s	4.102.773	\$ _	\$	49.180	\$	(625,500) \$	(1,137) \$		3,525,316
2	154,440		4,102,773	(2,051,386)	•	48,485	•	(,,	(2,273)		2,252,038
3	309,151		4,102,773	(2,051,386)		47,790			(3,408)		2,404,919
4	464,539		4,102,773	(2,051,386)		46,921			(4,541)		2,558,305
5	620,878		4,102,773	(2,051,386)		46,052			(5,674)		2,712,643
6	778,854		4,102,773	(2,051,386)		45,183			(6,805)		2,868,619
7	938,338		4,102,773	(2,051,386)		44,314			(7,934)		3,026,104
8	1,098,373		4,102,773	(2,051,386)		43,445			(9,063)		3,184,141
9	1,259,096		4,102,773	(2,051,386)		42,576			(10,190)		3,342,868
10	1,582,477		4,102,773	(4,102,773)		41,707			(11,316)		1,612,867
11	1,582,477		-	-		40,838			-		1,623,314
12	1,582,477		-	-		39,969			-		1,622,445
13	1,582,477		-	-		39,100			-		1,621,576
14	1,582,477		-	-		38,231			-		1,620,707
15	1,582,477		-	-		37,322			-		1,619,799
16	1,582,477		-	-		36,454			-		1,618,931
17	1,582,477		-	-		35,586			-		1,618,063
18	1,582,477		-	-		34,718			-		1,617,195
19	1,582,477		-	-		-			-		1,582,477
20	1,582,477		-	-		-			-		1,582,477
21	1,582,477		-	-		-			-		1,582,477
22	1,428,036		-	-		-			-		1,428,036
23	1,273,326		-	-		-			-		1,273,326
24	1,117,938		-	-		-			-		1,117,938
25	961,598		-	-		-			-		961,598
26	803,622		-	-		-			-		803,622
27	644,138		-	-		-			-		644,138
28	484,104		-	-		-			-		484,104
29	 323,381		-	-		-			-		323,381
	\$ 31,649,530	\$	41,027,728	\$ (20,513,864)	\$	757,869	\$	(625,500) \$	(62,342) \$	5	2,233,421

<sup>(1)</sup> Appendix E - Service Area Z, Page 2
(2) Appendix E - Service Area Z, Page 1
(3) Eligible outstanding debt funded projects as a percent of outstanding principal times outstanding eligible annual debt service
(4) Appendix E - Service Area Z, Page 6

# Transportation Improvement Plan for Impact Fees Impact Fee Calculation Appendix E - Service Area Z

		Future Value	Escalation					
	Number of	Interest	Recovery					
	Years to	Rate	Fee	Annual Ser	vice Units	Annua	al Exn	ense
<u>Year</u>	End of Period	Factor	Factor	Actual	Escalated	Actual	=/\p	Escalated
<u>1 0 u.                                   </u>	<u> </u>	<u> </u>	1 40101	riotaar	<u> </u>	<u> </u>		
1	29	1.2855	1.0000	1,625	2,088	\$ 3,525,31	16 \$	4,531,691
2	28	1.2742	1.0000	1,625	2,070	2,252,03	18	2,869,534
3	27	1.2630	1.0000	1,625	2,052	2,404,91	9	3,037,453
4	26	1.2519	1.0000	1,625	2,034	2,558,30	)5	3,202,836
5	25	1.2410	1.0000	1,625	2,016	2,712,64	3	3,366,266
6	24	1.2301	1.0000	1,625	1,998	2,868,61	9	3,528,597
7	23	1.2193	1.0000	1,625	1,981	3,026,10	)4	3,689,662
8	22	1.2086	1.0000	1,625	1,963	3,184,14	1	3,848,295
9	21	1.1980	1.0000	1,625	1,946	3,342,86	8	4,004,688
10	20	1.1875	1.0000	1,625	1,929	1,612,86	57	1,915,232
11	19	1.1771	1.0000	-	-	1,623,31	4	1,910,728
12	18	1.1667	1.0000	-	-	1,622,44	5	1,892,953
13	17	1.1565	1.0000	-	-	1,621,57	<b>'</b> 6	1,875,342
14	16	1.1463	1.0000	-	_	1,620,70	)7	1,857,895
15	15	1.1363	1.0000	-	-	1,619,79		1,840,564
16	14	1.1263	1.0000	-	-	1,618,93		1,823,440
17	13	1.1164	1.0000	-	-	1,618,06		1,806,475
18	12	1.1066	1.0000	-	-	1,617,19		1,789,668
19	11	1.0969	1.0000	-	-	1,582,47	7	1,735,884
20	10	1.0873	1.0000	-	-	1,582,47	7	1,720,656
21	9	1.0778	1.0000	-	_	1,582,47	7	1,705,562
22	8	1.0683	1.0000	-	_	1,428,03		1,525,608
23	7	1.0590	1.0000	-	_	1,273,32		1,348,393
24	6	1.0497	1.0000	-	-	1,117,93		1,173,459
25	5	1.0405	1.0000	-	-	961,59	18	1,000,501
26	4	1.0313	1.0000	-	-	803,62	22	828,799
27	3	1.0223	1.0000	-	-	644,13	88	658,491
28	2	1.0133	1.0000	-	-	484,10	)4	490,549
29	1	1.0044	1.0000	-	-	323,38	31	324,812
					20,078		\$	61,304,035
		Annual Interest Ra	ite:			0.89	)%	
		Present Value of I	nitial Impact Fee F	Fund Balance	:	\$ 1,423,20	)7	
		Total Consists of C	manaa fan Fintin - I	Dariad		Ф 64.004.00		
		Total Escalated Ex				\$ 61,304,03		
		Less Future Value	oi iniliai impact F	ee Fund Balance	_	1,837,55		
		Sub-Total			•	\$ 59,466,48	)4	
		Total Escalated Se	ervice Units			20,07	'8	
		Impact Fee for Se	ervice Area Z		;	\$ 2,96	2	

## Transportation Improvement Plan for Impact Fees Revenue Test Appendix E - Service Area Z

<u>Year</u>	Impact <u>Fee</u>	Service <u>Units</u>	Impact Fee <u>Revenue</u>	Annual <u>Expenses</u>		<u>Sub-Total</u>		Accumulated Interest		Estimated Fund <u>Balance</u>
Initial										\$ 1,423,207
1	\$ 2,962	\$ 1,625	\$ 4,811,612	\$	3,525,316	\$	1,286,297	\$	18,287	2,727,791
2	2,962	1,625	4,811,612		2,252,038		2,559,574		35,467	5,322,832
3	2,962	1,625	4,811,612		2,404,919		2,406,693		57,757	7,787,282
4	2,962	1,625	4,811,612		2,558,305		2,253,308		78,888	10,119,478
5	2,962	1,625	4,811,612		2,712,643		2,098,970		98,845	12,317,293
6	2,962	1,625	4,811,612		2,868,619		1,942,994		117,606	14,377,892
7	2,962	1,625	4,811,612		3,026,104		1,785,508		135,145	16,298,546
8	2,962	1,625	4,811,612		3,184,141		1,627,471		151,444	18,077,461
9	2,962	1,625	4,811,612		3,342,868		1,468,744		166,485	19,712,690
10	2,962	1,625	4,811,612		1,612,867		3,198,745		188,612	23,100,046
11	-	-	-		1,623,314		(1,623,314)		197,252	21,673,984
12	-	-	-		1,622,445		(1,622,445)		184,635	20,236,174
13	-	-	-		1,621,576		(1,621,576)		171,915	18,786,513
14	-	-	-		1,620,707		(1,620,707)		159,089	17,324,894
15	-	-	-		1,619,799		(1,619,799)		146,158	15,851,253
16	-	-	-		1,618,931		(1,618,931)		133,120	14,365,442
17	-	-	-		1,618,063		(1,618,063)		119,974	12,867,354
18	-	-	-		1,617,195		(1,617,195)		106,720	11,356,879
19	-	-	-		1,582,477		(1,582,477)		93,506	9,867,908
20	-	-	-		1,582,477		(1,582,477)		80,329	8,365,760
21	-	-	-		1,582,477		(1,582,477)		67,035	6,850,318
22	-	-	-		1,428,036		(1,428,036)		54,306	5,476,588
23	-	-	-		1,273,326		(1,273,326)		42,833	4,246,096
24	-	-	-		1,117,938		(1,117,938)		32,631	3,160,790
25	-	-	-		961,598		(961,598)		23,718	2,222,909
26	-	-	-		803,622		(803,622)		16,117	1,435,403
27	-	-	-		644,138		(644,138)		9,853	801,118
28	-	-	-		484,104		(484,104)		4,948	321,962
29	-	-	 -		323,381		(323,381)		1,418	(0)
			\$ 48,116,122	\$	52,233,421			\$	2,694,092	

Transportation Improvement Plan for Impact Fees Impact Fee Project Funding Appendix E - Service Area Z

	Impact Fee	Cost in	Impact Fee	Debt Fund	ded <sup>(3)</sup>	Non-Debt	Impact Fee	
Impact Fee Project Name <sup>(1)</sup>	Project No. (1)	Service Area <sup>(1)</sup>	Recoverable Cost <sup>(2)</sup>	<u>Existing</u>	Proposed	Funded <sup>(3)</sup>	Recoverable Cost	
Everman Pkwy. (1)	Z-1, X-7	\$ 2,384,500	\$ 587,616	\$ - \$	293,808	\$ 293,808	\$ 587,616	
Everman Pkwy. (2)	Z-2, X-8	513,000	126,419	-	63,210	63,210	126,419	
Shelby Rd.	Z-3	6,747,000	1,662,674	-	831,337	831,337	1,662,674	
Risinger Rd. (4)	Z-4	11,925,000	2,938,696	-	1,469,348	1,469,348	2,938,696	
Risinger Rd. (5)	Z-5	1,821,000	448,752	-	224,376	224,376	448,752	
Risinger Rd. (6)	Z-6	6,047,000	1,490,172	-	745,086	745,086	1,490,172	
Oak Grove Shelby Rd.	Z-7	7,005,000	1,726,253	-	863,127	863,127	1,726,253	
Oak Grove Shelby Rd./Risinger Rd.	Z-8	7,076,000	1,743,750	-	871,875	871,875	1,743,750	
McPherson Blvd. (4)	Z-9	9,779,000	2,409,854	-	1,204,927	1,204,927	2,409,854	
McPherson Blvd. (5)	Z-10	336,000	82,801	-	41,401	41,401	82,801	
McPherson Blvd. (6)	Z-11	3,591,000	884,936	-	442,468	442,468	884,936	
McPherson Blvd. (7)	Z-12	5,255,000	1,294,998	-	647,499	647,499	1,294,998	
McPherson Blvd. (8)	Z-13	9,501,000	2,341,346	-	1,170,673	1,170,673	2,341,346	
McAlister Rd. (1)	Z-14	921,761	227,151	-	113,575	113,575	227,151	
McAlister Rd. (2)	Z-15	2,716,000	669,308	-	334,654	334,654	669,308	
McAlister Rd. (3)	Z-16	1,198,000		-	147,613	147,613	295,225	
Alsbury Blvd.	Z-17	1,256,000	309,518	-	154,759	154,759	309,518	
Hemphill St. (5)	Z-18	6,540,000	1,611,662	-	805,831	805,831	1,611,662	
Hemphill St. (6)	Z-19	12,541,000	3,090,498	-	1,545,249	1,545,249	3,090,498	
Hemphill St. (7)	Z-20	822,000	202,567	-	101,283	101,283	202,567	
Hemphill St. (8)	Z-21	593,000	146,134	-	73,067	73,067	146,134	
Hemphill St. (9)	Z-22	1,006,000	247,910	-	123,955	123,955	247,910	
Oak Grove Rd. (4)	Z-23	2,369,000	583,796	-	291,898	291,898	583,796	
Oak Grove Rd. (5)	Z-24	1,607,000	396,016	-	198,008	198,008	396,016	
Oak Grove Rd. (6)	Z-25	4,514,000	1,112,392	-	556,196	556,196	1,112,392	
Oak Grove Rd. (7)	Z-26	844,000	207,988	-	103,994	103,994	207,988	
Oak Grove Rd. (8)	Z-27	3,212,000	791,538	-	395,769	395,769	791,538	
Stone Rd. (1)	Z-28	3,641,000	897,257	-	448,629	448,629	897,257	
Stone Rd. (2)	Z-29	6,844,000	1,686,578	-	843,289	843,289	1,686,578	
Stone Rd. (3)	Z-30	5,799,000	1,429,057	-	714,528	714,528	1,429,057	
Stone Rd. (4)	Z-31	3,146,000	775,274	-	387,637	387,637	775,274	
Stone Rd. (5)	Z-32	560,000	138,002	-	69,001	69,001	138,002	
Wichita St. (3)	Z-33	3,727,000	918,450	-	459,225	459,225	918,450	
Wichita St. (4)	Z-34	532,000	131,102	-	65,551	65,551	131,102	
Wichita St. (5)	Z-35	6,057,000	1,492,636	-	746,318	746,318	1,492,636	
Oak Grove Rd. (9)	Z-36	7,041,000	1,735,125	-	867,562	867,562	1,735,125	
Oak Grove Rd. (10)	Z-37	1,403,000	345,743	-	172,872	172,872	345,743	
Oak Grove Rd. (11)	Z-38	8,836,000	2,177,469	-	1,088,735	1,088,735	2,177,469	
Wildcat Way	Z-39	3,416,000	841,810	-	420,905	420,905	841,810	
Rendon / Forest-Hill (1)	Z-40	1,635,000	402,916	-	201,458	201,458	402,916	
Rendon / Forest-Hill (2)	Z-41	1,704,500	420,043	-	210,021	210,021	420,043	
2013 Transportation Impact Fee		25,555	6,298	<u>-</u>	3,149	3,149	6,298	
	Total	\$ 166,487,316	\$ 41,027,728	\$ - \$	20,513,864	\$ 20,513,864	\$ 41,027,728	

<sup>(1)</sup> Table 7, Line 5 of Report

<sup>(2)</sup> Table 7, Line 11 of Report

<sup>(3)</sup> Per discussions with City staff and City files

## City of Fort Worth 2013 Transportation Impact Fee Study Transportation Improvement Plan for Impact Fees

Credit Determination Appendix E - Service Area Z

 2012 Population (All Service Areas)<sup>(1)</sup>
 767,810

 Ten Year Growth in Population (Service Area Z)<sup>(2)</sup>
 4,259

 Annual Growth in Population
 426

		1		2	3		4	5	5	6	7	8	9		10	Total
Total Non-Debt Funded Projects Eligible for Impact Fees	\$ 2	051,386	\$ 2,0	051,386	\$ 2,051,3	36 \$	2,051,386	\$ 2,05	51,386	\$ 2,051,386	\$ 2,051,386	\$ 2,051,386	\$ 2,051,38	6 \$ :	2,051,386	\$ 20,513,864
Population (All Service Areas)		768,236	7	768,662	769,0	38	769,514	76	69,940	770,365	770,791	771,217	771,64	3	772,069	
Total Non-Debt Funded Projects Eligible for Impact Fees per Person	\$	2.67	\$	2.67	\$ 2.	67 \$	2.67	\$	2.66	\$ 2.66	\$ 2.66	\$ 2.66	\$ 2.6	6 \$	2.66	
Annual Growth in Service Area Z Population (Cumulative)		426		852	1,2	78	1,704		2,130	2,555	2,981	3,407	3,83	3	4,259	
Annual Ad Valorem Revenue Generated by Population for Non-Debt Funded Projects Eligible for Impact Fees	\$	1,137	\$	2,273	\$ 3,4	08 \$	4,541	\$	5,674	\$ 6,805	\$ 7,934	\$ 9,063	\$ 10,19	0 \$	11,316	\$ 62,342

62,342

Credit Amount

<sup>(1)</sup> Estimated 2012 Population as of July 18, 2012

<sup>(2)</sup> Table 6 of Report