

Appendix B
City of Fort Worth 2008 Sidewalk Survey



City of Fort Worth 2008 Sidewalk Survey



September 2008



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Kimley-Horn
and Associates, Inc.

ACCESSOLOGY



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I. INTRODUCTION

Study Background

“Improve mobility and air quality by providing a multi-modal transportation system” is one of the transportation goals listed in the 2008 City of Fort Worth Comprehensive Plan, adopted by the Fort Worth City Council on February 19, 2008. This goal is reinforced by the recent Mobility and Air Quality Plan objectives to “provide a coordinated transportation system that includes: land use, air quality, public transit, road, bicycle and pedestrian facilities” and “utilize a strategic approach to providing an integrated transportation system that provides seamless travel via multiple modes of transportations.” Sidewalks are a key component of this multi-modal transportation system and are an essential piece in encouraging connectivity in a pedestrian friendly community.

In support of these efforts, funds were approved as part of the 2004 Capital Improvement Program (CIP) bond election to construct new sidewalks throughout the City. The Safe Pathways Program was created to allocate these funds toward projects that would be most beneficial. The focus of this program was to enable new sidewalks to be constructed on pedestrian routes that lack sidewalks in the vicinity of bus stops, parks and especially schools. As of Summer 2008, three quarters of the approved funding has been applied on sites identified by City staff, based on field site investigations and input from the public. As the Safe Pathways Program draws to an end, it is important that the City determine the remaining need for new sidewalks and then identify subsequent funding mechanisms.

Over the past several years, the Fort Worth’s City Council has also dedicated resources from its General Fund to assist property owners in the repair and replacement of damaged sidewalks. City staff currently receive requests for sidewalk repairs directly from property owners and the volume of requests surpasses the available funding. The City does not have a comprehensive inventory of sidewalk repair needs citywide, only those reported by citizens.

Study Goals

In order to plan for future sidewalk improvements, the City commissioned this study to identify existing roadways within the City without sidewalks and where sidewalks need repair. The primary goal of the study is to determine the magnitude of sidewalk needs citywide, including an estimated total cost of construction and repair. In addition, this survey will assist City staff in the evaluation of future sidewalk projects and requests from the public, and in determining the levels of funding needed for sidewalks in future bond programs or other City initiatives.

II. STUDY METHODOLOGY

Study Area

The study area was designed to focus on locations within the City that are expected to have high levels of pedestrian activity. When defining the study area boundaries, several factors were taken into consideration:

- Study areas should include the immediate vicinity of civic buildings, transit stops, schools, large employment centers, and arterial streets;
- The study area radius surrounding these locations should be what a typical person would think is reasonable to travel by foot or wheelchair;
- The majority of the new housing developments outside of Loop 820 will likely have sidewalks since they were built since the implementation of the City's policy requiring sidewalks on all new streets; and
- Most future bond projects and major developments will include sidewalks, so these cases should not be included in the estimated cost for sidewalk improvements.

These factors were then used to help define the study area boundaries. Based on national research and discussions with the City, it was determined that a ½ mile radius is a reasonable walking distance to and from the locations identified above. As a result, the final study area was determined to be:

- All public streets located within one half mile of all public schools in City of Fort Worth;
- All public streets located within one half mile of all Fort Worth Transportation Authority bus / Trinity Railway Express (TRE) stops and stations within the City of Fort Worth;
- All arterial streets within Loop 820 identified on the City's current Master Thoroughfare Plan; and
- All public ROW locations within the Central Business District (CBD) bounded by Summit Ave., Lancaster Ave., the BNSF railroad, and Belknap St.

The resulting study area was approximately 169 square miles, which is approximately 50% of total land area of the City. The remainder of the City is predominately rural, undeveloped land, or newly developed land outside Loop 820 where transit service is not provided. Many developments outside Loop 820 are relatively new and were required to construct sidewalks under the City's subdivision ordinance.

In-Field Evaluation

Field forms were developed using Geographic Information Systems (GIS) data provided by the City. These field forms were then used to conduct a 'windshield survey' of the project study area. The windshield survey was conducted to verify the presence or absence of sidewalks and to identify sidewalk segments in need of repair. It should be noted that not all sidewalk repair needs in the study area were documented since an in-depth field assessment was not part of this project.

Roads that had a rural cross section (i.e., no curb and gutter with drainage ditches) were also noted. Since sidewalks could not be constructed adjacent to these roadways, they were excluded from the planning level cost projections.

Following the completion of all field work, field data were entered into GIS for future use by the City. Copies of the field forms can be found in the **Appendix**.

Based on the results of the survey, approximately 55% of the study area is without sidewalks and less than 1% of existing sidewalks are in need of repair.

III. COST ASSESSMENT OF SIDEWALK NEEDS

An opinion of probable construction cost (OPCC) was prepared to help the City plan for future sidewalk improvements. GIS was used to determine the total linear feet of missing sidewalk and existing sidewalk

that was visually in need of repair. An average cost per linear foot of concrete sidewalk was then applied to determine the total cost of the improvements. The average cost per linear foot was derived from recent City and Texas Department of Transportation (TxDOT) bid tabulations. **Table 1** summarizes the projected sidewalk improvement costs by sidewalk condition and street classification. Due to the City's interest in improving walkability and in providing facilities in accordance with the Access Board's accessibility guidelines, the City may consider changing the minimum sidewalk width design standard from four feet to five feet. Cost projections were prepared for both four and five foot wide sidewalks. The total estimated cost to construct and repair the sidewalks identified in the survey is approximately \$183 million for four foot sidewalk and \$205 million for five foot sidewalk.

It should be noted that the City will construct sidewalks as regular project components of several on-going and future street projects. The cost of sidewalks to be constructed in these projects was excluded from the calculation of citywide sidewalk cost projections.

These costs should be considered conservative since they assume sidewalks are constructed along both sides of every public street within the study area. For example, collectors (\$33 million) and local streets (\$129 million) account for approximately 88% of the \$183 million. It is highly likely that some neighborhoods will elect to not have sidewalks or only have them installed on one side of the street. If improvements are limited to arterial projects only, the projected sidewalk construction cost is approximately \$22 million.

Table 1. Sidewalk Improvement Cost Projection Summary

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Sidewalk Condition	Arterial			Non-Arterials		Total
	Principal	Major	Minor	Collector	Local	
No Sidewalk Present (ft)	358,854	587,230	370,833	2,053,101	7,999,375	11,370,044
Sidewalk needs Repair (ft)	784	4,540	920	12,202	28,662	47,108
Total Length (ft)	359,638	591,770	371,753	2,065,303	8,027,037	11,417,152
Total Length (miles)	68.1	112.0	70.4	391.1	1520.4	2,162
Cost (\$16/ft) 4' sidewalk	\$5,754,000	\$9,468,000	\$5,948,000	\$33,045,000	\$128,433,000	\$183,000,000
	\$21,170,000			\$161,478,000		
Cost (\$18/ft) 5' sidewalk	\$6,473,000	\$10,652,000	\$6,692,000	\$37,175,000	\$144,487,000	\$205,000,000
	\$23,817,000			\$181,662,000		

IV. COORDINATION WITH OTHER AGENCIES

Before committing resources to future sidewalk improvements, the City should consider other City programs such as the ADA Compliant Curb Ramp Improvement Program and coordinate with local agencies such as The T and TxDOT. Both The T and TxDOT are currently implementing sidewalk and ADA improvements throughout the City. Coordination with these agencies will reduce the potential for the City to budget money for a project that TxDOT or The T already has programmed.

In addition, if the City receives funding from TxDOT's Safe Routes to School (SRTS) program, the results of this survey should be used to identify potential sidewalk improvement projects near public schools throughout the City.

The amount of funding available to implement sidewalk improvements is limited, so additional funding opportunities should be explored including leveraging funds from private organizations and other public agencies. By combining efforts with other agencies, the City can implement a more cohesive transportation system that provides connectivity between pedestrian traffic generators such as transit stations, employment and shopping centers, neighborhoods, government facilities, parks and schools.

V. CONCLUSIONS AND NEXT STEPS

Much of the study area is without sidewalks. The estimated cost to install new sidewalks and/or repair existing sidewalk within the study area exceeds \$180 million. If improvements are limited to only arterial projects, these costs may be reduced to approximately \$22 million. While some neighborhoods may elect to not want sidewalks, the cost to provide sidewalks throughout the City will be significant.

The City of Fort Worth's Transportation and Public Works Department should undertake the following steps to implement the citywide sidewalk program:

- Explore and secure additional funding for implementation of the sidewalk program, including grant partnerships with private and other public entities, and City resources such as future bond programs, certificates of obligation, gas well lease revenues, and the general fund.
- Utilizing the project scoring methodology developed for the ADA-Compliant Pedestrian Curb Ramp Improvement Program, identify a prioritized list of sidewalk needs for implementation as funding becomes available, with consideration of funding distribution across the City.
- Consider the implementation of a program that would allow residents to schedule and pay for sidewalk repairs done by one of the City's Sidewalk Repair and Replacement Program contractors. The City could collect the same rate from residents that it is charged by the contractor. This would result in savings for residents who currently must acquire a parkway permit and hire a contractor licensed by the City – these minor jobs are often unattractive to such contractors – or wait for the City to address the request as funding becomes available.

A well-connected, well-maintained network of sidewalks is a critical component of the City of Fort Worth's transportation network. The information and recommendations in this report should help guide the City on its mission to improve the health and quality of life of its citizens and expand mobility options for commuters, residents, visitors, and persons with disabilities.

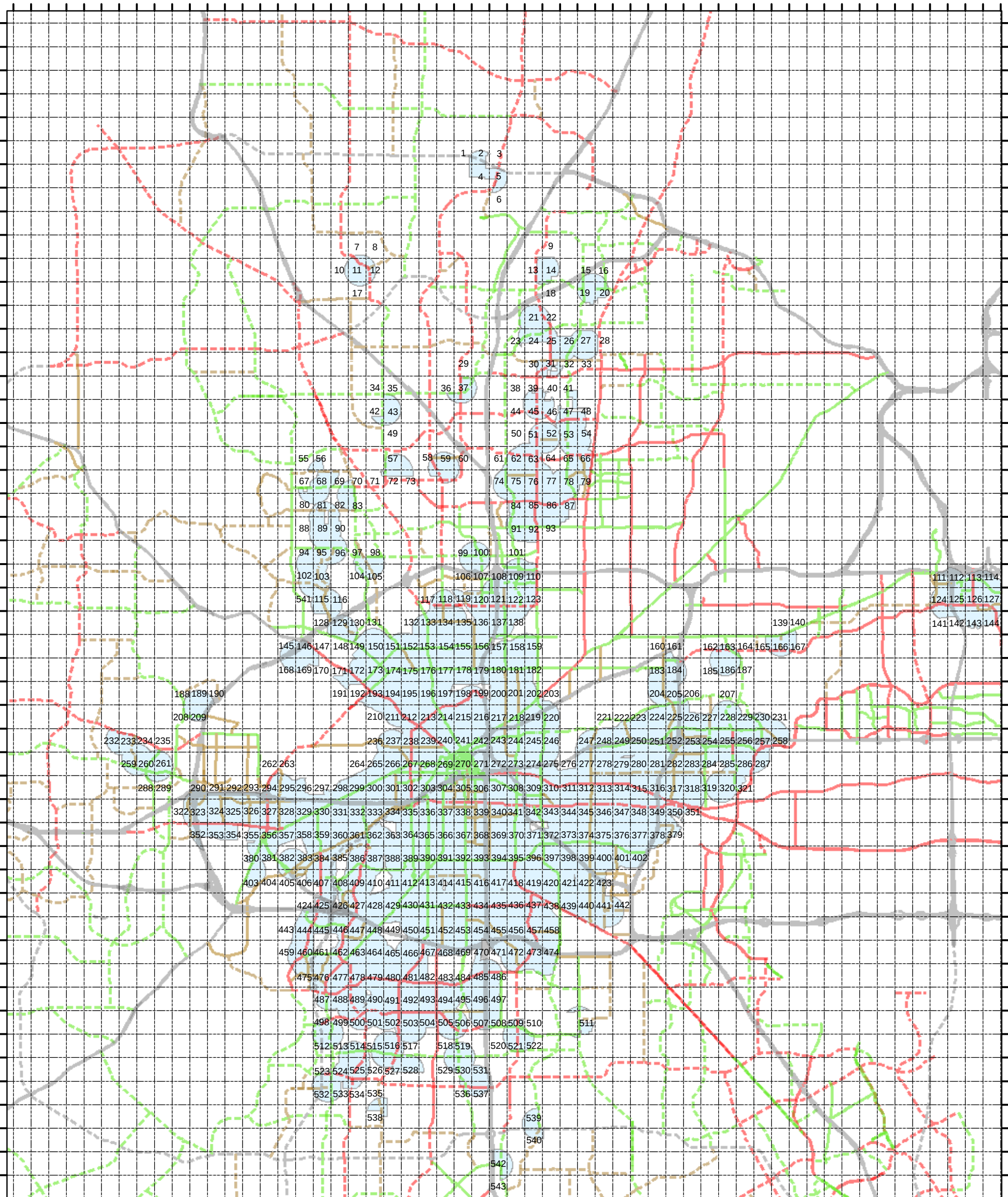
APPENDICES

A. KEY MAP

B. FIELD ASSESSMENT MAPS

Appendix A – Key Map

(See separate Appendix document)



2008 Sidewalk Survey

FORT WORTH

ADA Compliant Pedestrian
Curb Ramp Improvement
Program Study

0 2 4 8 Miles

August 2008

Appendix B – Field Assessment Maps

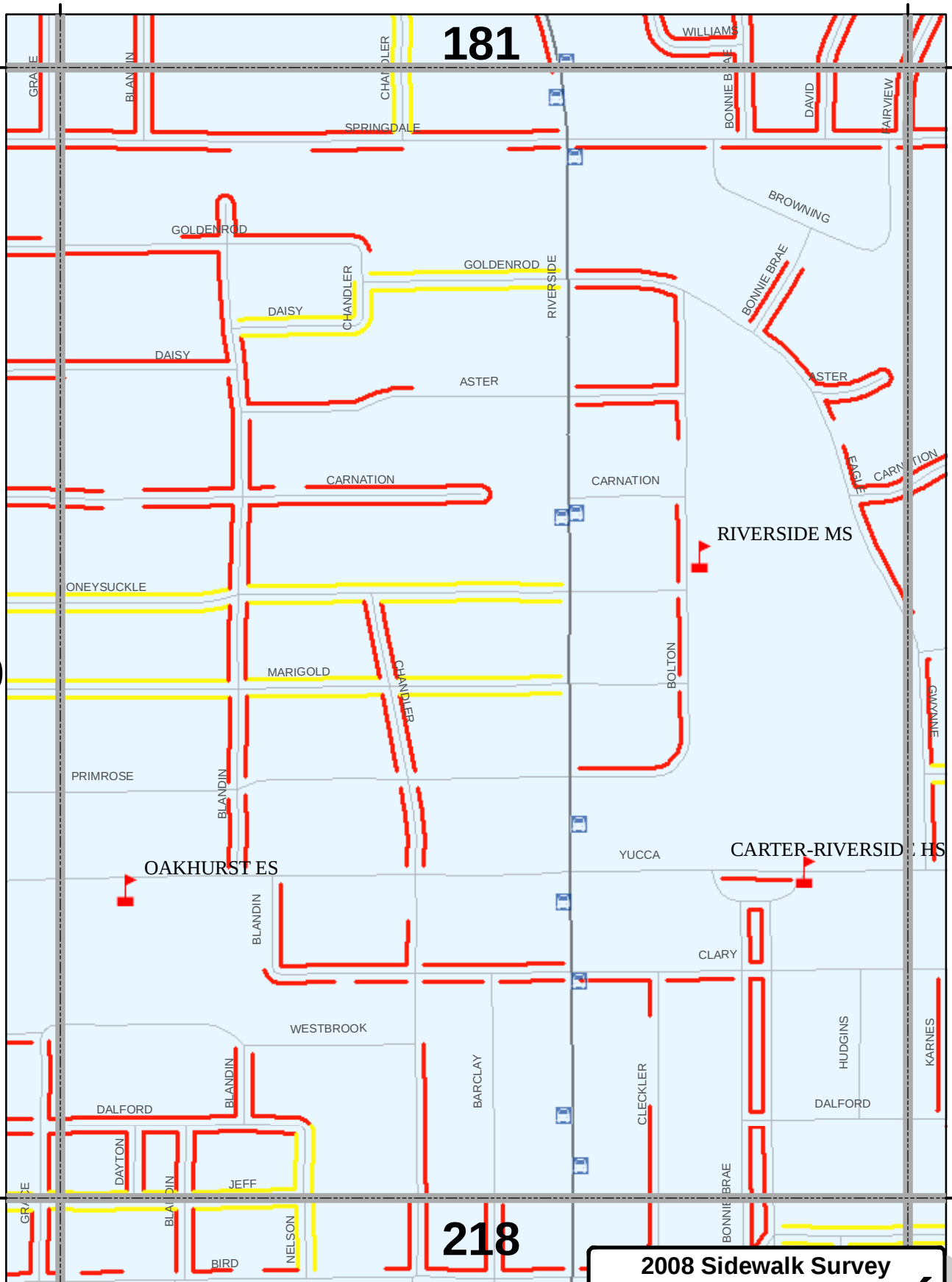
(See separate Appendix document)

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181

202

218



Legend

No Sidewalk	Study Limits within City
Repair Sidewalk	Public Schools
Rural Section	Bus Stops
Funded Improvement	

2008 Sidewalk Survey

FORT WORTH ADA Compliant Pedestrian
Curb Ramp Improvement
Program Study

0 250 500 1,000 Feet

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