Appendix A-2
2008 ADA Compliant Pedestrian Curb Ramp Improvement Program Study

2008 ADA Compliant Pedestrian Curb Ramp Improvement Program Study

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FORT WORTH

Kimley-Horn and Associates, Inc.

ACCESSOLOGY

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EXECUTIVE SUMMARY

The Americans with Disabilities Act (ADA) of 1990 requires public entities to prepare self-evaluations and accessibility transition plans by creating a detailed inventory of curb ramp and sidewalk conditions that may impede pedestrian mobility, especially for those pedestrians with physical impairments.

Prior to this study, the City of Fort Worth had little available information on non-compliant ramp locations or a process to identify non-compliant locations. The purpose of this study can be broken down into five (5) tasks:

1. Comply with the Americans with Disabilities Act;
2. Establish a process to identify and prioritize curb ramp improvements;
3. Identify initial priority areas and use the process created in Step 2 to identify and prioritize improvements;
4. Estimate Citywide compliance improvement costs; and
5. Recommend policy changes.

In order to develop a process to identify and prioritize curb ramp improvements, several meetings were held with City staff, the Access Subcommittee of the Mayor's Committee on Persons with Disabilities, and other stakeholders. The study structure developed included the identification of study areas, evaluation criteria, costing, prioritization, and the development of evaluation tools. This approach established a well-defined process to identify and prioritize curb ramp improvements throughout the City.

The City of Fort Worth allocated funding to initiate the first phase of this program. Several potential study areas were discussed during stakeholder and public meetings. Due to limited funding under this initial phase, only a handful of high-priority study areas were chosen along high-volume Fort Worth Transit Authority (The T) routes, areas with high pedestrian activity, and citizen requests. They included:

- Medical District – area bounded by Pennsylvania, Henderson, Terrell, and 6th;
- The T Route 1 – Hemphill Street from W. Vickery to Berry;
- The T Route 1a – NW 25th/Azle from Ellis to Long;
- The T Route 2 – E. Lancaster from Oakland to Cravens; and
- Citizen Requests – 9 intersections from citizen requests.

The process identified through the stakeholder meetings was used to evaluate the five study areas listed above. Results from this initial study are summarized below:

Cost Projection Summary by Priority Level		
Priority Level	**Number of Curb Ramps**	**Improvement Cost [1]**
High	202	$ 627,100
Medium	103	$ 311,700
Low	30	$ 75,700
Total Cost for Improvements		**$1,014,500**

[1] Total cost includes mobilization, engineering/survey, and contingency

Using results from this initial study and those from the *2008 Sidewalk Survey* (a complementary study conducted at the same time), the estimated Citywide cost to repair non-compliant curb ramps was $66.5 million.

As funding becomes available, City staff and stakeholders should identify future study areas that have high levels of pedestrian activity and numerous pedestrian attractors. The methodology and evaluation tools detailed in this report will serve as the basis for future studies, project evaluations, and investment decisions.

I. INTRODUCTION

The Americans with Disabilities Act (ADA) of 1990 requires public entities to prepare self-evaluations and accessibility transition plans by creating a detailed inventory of curb ramp and sidewalk conditions that may impede pedestrian mobility, especially for those pedestrians with physical impairments. Accordingly, the City of Fort Worth has retained Kimley-Horn and Associates, Inc. and Accessology, Inc. to assist in preparing this self-evaluation and accessibility transition plan.

II. PURPOSE

Prior to this study, the City of Fort Worth had little available information on non-compliant ramp locations or a process to identify non-compliant locations. The purpose of this study can be broken down into five (5) tasks:

1. Comply with the Americans with Disabilities Act;
2. Establish a process to identify and prioritize curb ramp improvements;
3. Identify initial priority areas and use the process created in Task 2 to identify and prioritize improvements;
4. Estimate Citywide compliance improvement costs; and
5. Recommend policy changes.

III. LEGISLATION

Americans with Disabilities Act (ADA)

The ADA was signed into law on July 26, 1990 by President George H. Bush. This legislative act was developed as a civil rights action for individuals with a "physical or mental impairment that substantially limits one or more of the major life activities."

This legislation is intended to provide access to all individuals with disabilities that is equal or similar to that of the general public. This includes access to public transportation, public spaces, communications, and other accommodations. The ADA is broken down into several titles (Title I through Title VII), and each has its own guidelines. The applicable section for this study is Title II and, therefore, this report is specific to the Title II laws for places of public accommodation and the Americans with Disabilities Act Accessibility Guidelines (ADAAG). Title II is intended to apply to all programs, activities, and services provided by State and local governments.

Title III of the ADA requires that access barriers of all types be removed from any existing public accommodations facilities or services. All alterations beginning after January 26, 1992 need to comply with the technical requirements of the ADA.

The disability community generally initiates enforcement of the federal standards either through direct contact and assistance or through private litigation. Complaints may be made by any citizen to the Department of Justice or to a local attorney for action to be taken to pursue a claim.

Texas Legislation

The 73rd Texas Legislature amended the Architectural Barriers Act (Article 9102 of the Texas Civil Statutes) to require public buildings and facilities, privately owned buildings and facilities leased or occupied by state agencies, places of public accommodation, and commercial facilities which are constructed, substantially renovated, modified or altered to comply with the state Architecture Barriers Act.

Article 9102 of the Texas Civil Statutes requires any construction project (new construction or alterations and additions) that exceeds $50,000 in construction costs to be submitted to the state for review for compliance with the Texas Accessibility Standards (TAS), the State version of the accessibility standards. Once a plan review has been done, the project must also be physically inspected for compliance upon completion.

The construction documents are required to be submitted by the engineer who has overall responsibility for the design of the facility. If there is no engineer with overall responsibility for the design, the building/facility owner is responsible for submitting the documents. Failure to submit construction documents prior to the commencement of construction will result in a report to the Texas Board of Architectural Examiners or the State Board of Registration for Professional Engineers, as appropriate.

Upon completion of a construction project, the project is required to be physically inspected for compliance with State standards. If a project, building, or facility is inspected and found to be in non-compliance, the responsible party is given 30-90 days to correct all items and provide verification (in writing) that items have been corrected. If compliance cannot be achieved within the specified time, a request must be made in writing for an extension of time. Failure to respond may result in a maximum penalty of $5,000 per day, per violation until compliance is achieved.

The Texas Department of Licensing and Regulation enforces compliance with Article 9102 of the Texas Civil Statutes (the Texas Architectural Barriers Act) and its design standards (TAS).

It is the City's intention that the program implemented as a result of this study will ensure compliance with all applicable legislation.

IV. STUDY METHODOLOGY

A. STAKEHOLDER AND PUBLIC INVOLVEMENT

In order for this study to be successful, project stakeholders were invited to help establish the evaluation and prioritization criteria for the study. The Access Subcommittee of the Mayor's Committee on Persons with Disabilities provided guidance and essential feedback during study development and implementation. Staff members from the City of Fort Worth Transportation and Public Works (T/PW) Department, the Fort Worth Transportation Authority (The T), and concerned citizens all provided valuable input. The methodology described in this study will become the framework for future studies and investment decisions, so having stakeholder input and acceptance was critical for the long term success of the program.

A list of meetings is attached in **Appendix A**.

B. IDENTIFICATION OF STUDY AREAS

An ideal study area should have high pedestrian traffic and contain "pedestrian attractors." These attractors include the following:

- State or Local Government Offices
- Commuter Rail Stations
- Transit Stops
- Hospital and Medical Office Buildings
- Places of Public Accommodation (parks, libraries, etc.)
- Public or Private Schools
- Employers with Capacity > 250 employees
- Accessible Housing
- Public Parking Garages
- Religious Institutions

City staff and stakeholders identified potential study areas and prioritized which areas should be studied first, based on available funding. Although there is no set scoring system to prioritize study areas, City staff and stakeholders discussed the proposed study areas and identified areas with the highest pedestrian activity and nearby attractors as the highest priority study areas.

C. EVALUATION CRITERIA

The primary evaluation criteria for a curb ramp are its design parameters, as established by the ADA and TAS. A field form was created in order to document each ramp's design parameters. This form is included in **Appendix B**. Below are definitions of several design parameters:

- ***Running slope*** – the slope that is parallel to the direction of travel.
- ***Cross slope*** – the slope that is perpendicular to the direction of travel.
- ***Sides*** – the sloped area between the ramp and the ground (also referred to as flares).
- ***Transition*** – the area between the end of the ramp and the street surface.
- ***Texture differential*** – raised surface on ramp used to indicate the beginning of a ramp (truncated domes are often used).

Each ramp was classified into one of three categories, which are described below:

- High Priority (meets at least one of the following criteria)
  - No curb ramp
  - Curb ramp running slope exceeds 11%
  - Curb ramp cross slope exceeds 6%
  - Curb ramp has dangerous sides or transitions (exceeds 10%)
- Medium Priority
  - Curb ramp running slope is between 9.5% and 10.9%
  - Curb ramp cross slope is between 4% and 5.9%

- Curb ramp sides or transitions are not compliant, but not extremely dangerous

- Low Priority

  - Curb ramp running slope is between 8.3% and 9.4%
  - Curb ramp cross slope is between 2% and 3.9%
  - Curb ramp is compliant except for color/texture differential

In addition to classifying the priority for each ramp, proposed improvements were identified to make the ramp ADA compliant. Recommended ramp replacements were based on the latest version of the City's Transportation and Public Works (T/PW) Department – Traffic Services Division Sidewalk Ramp Details sheet. Other improvements were also documented including replacing curb ramp flares, repairing the transition between the bottom of the curb ramp and the street, and relocating pedestrian push buttons to accessible locations. Copies of the field forms for each study area intersection are included in **Appendix C**.

D. COSTING

Several sources of information were utilized to determine the planning level costs for the improvements that were identified during field work. These sources included:

- TxDOT's Average Low Bid Unit Price – Construction – Statewide Database
- Recent City of Fort Worth Traffic Signal Design Construction Bid Tabulations
- Other D/FW Metroplex Traffic Signal Design Construction Bid Tabulations

Planning level costs for each of the improvement types listed above were determined using the sources above. The table below summarizes these costs.

Planning Level Improvement Construction Costs (2008)

Improvement Type	Projected Cost
Type A, B, C, D, and F curb ramps [1]	$1,500
Type E and G curb ramps [1]	$1,750
Type H and K curb ramps [1]	$2,000
Repair transition between ramp and road	$750
Remove and replace curb ramp flare	$750
Relocate pedestrian push buttons	$4,000

[1] See TPW Department – Traffic Services Division Sidewalk Ramp Details sheet included in **Appendix D**.

The planning level construction costs above do not include contractor's mobilization costs, the engineering and survey fees, and any project contingencies. For the purposes of setting initial costs, the following percentages of construction costs were used:

- Contractor's Mobilization: 10% of projected construction cost
- Engineering & Surveying: 12% of total construction cost (mobilization included)
- Project Contingency: 10% of total construction cost (mobilization/engineering/survey included)

These planning level costs should be reviewed and adjusted on an annual basis to account for inflation and any increases in material costs.

E. PRIORITIZATION

Once assigned a priority level, each ramp was prioritized within each level so that the most dangerous ramps can be improved first. In order to complete this prioritization, a matrix (see following page) was created to evaluate each ramp and assign it a "pedestrian attractor score." Three (3) main components make up this score:

- Pedestrian Attractors (50% weight)
  - Proximity to pedestrian attractors
  - Adjacent residential population density
  - Citizen request
- Pedestrian Risk (40% weight)
  - Street classification
  - Historical pedestrian/automobile accidents
- Available Private Funding (10% weight)

F. STUDY TOOLS

Several tools were developed to help organize field data and to help evaluate and prioritize proposed ramp improvements:

- Master Curb Ramp Inventory Spreadsheet

  The master curb ramp inventory spreadsheet summarizes all field data collected for each curb ramp. Individual curb ramps can be sorted by priority level, pedestrian attractor score, study area, cost, etc. As new study areas are studied, ramps can be added to this spreadsheet and prioritized accordingly.

- Pedestrian Attractor Matrix Spreadsheet

  The pedestrian attractor matrix spreadsheet assesses each curb ramp's pedestrian attractor score (see next page). This spreadsheet is linked to the master curb ramp inventory spreadsheet.

- Geographic Information Systems (GIS) Shapefile

  The GIS shapefile is a computer mapping tool that shows the location of each curb ramp and is linked to the master curb ramp inventory spreadsheet. The City will be able to use this shapefile to easily query information as necessary.

Pedestrian Attractor Matrix

Pedestrian Attractors Score: 0 - 100 **Base Score Weight 50%**

Element	Criteria	Proposed Points	
Proximity to Attractors	(Multiply Possible Points by number of attractors within specified radius)	250 feet	500 feet
Weight: 50%	Within 500 feet radius of State or Local Government Offices	20X	10X
	Within 500 feet radius of Commuter Rail Stations	20X	10X
	Within 500 feet radius of Transit Stop	18X	9X
	Within 500 feet radius of Hospitals and Medical Office Buildings	16X	8X
	Within 500 feet radius of Places of Public Accommodation (parks, libraries, etc.)	16X	8X
	Within 500 feet radius of Public or Private School	16X	8X
	Within 500 feet radius of Employers with Capacity > 250	16X	8X
	Within 500 feet radius of Accessible Housing	14X	7X
	Within 500 feet radius of Public Parking Garages	10X	5X
	Within 500 feet radius of Religious Institutions	10X	5X
Residential Population	Total population residing within 1/2-mile radius of proposed location		
Weight: 25%	a) Population >/= 10,000	100	
	c) Population >/= 6,000 and < 10,000	80	
	c) Population >/= 2,000 and < 6,000	40	
Request			
Weight: 25%	Project requested by Access Subcommittee		
	a) Yes	75	
	b) No	0	
	Project requested by citizen		
	a) Yes	25	
	b) No	0	

Pedestrian Risk Score: 0 - 100 **Base Score Weight 40%**

Element	Criteria	Proposed Points	
Street Classification	a) Arterial	100	
Weight: 40%	b) Collector	75	
	c) Local Residential	50	
Pedestrian/Automobile Accidents			
Weight: 60%	Number of accidents (injury and fatality) involving pedestrians and motorized	1 Block	2 Block
	vehicles in previous 36 months multiplied by 10 or 20	20X	10X

Private Funding Score: 0 - 100 **Base Score Weight 10%**

Element	Criteria	Proposed Points
Existing Funding Availability	Is there private funding available for this location?	
Weight: 100%	a) Yes	100
	b) No	0

V. PILOT STUDY

The City of Fort Worth allocated funding to initiate the first phase of this program. Several potential study areas were discussed during stakeholder and public meetings. Due to limited funding under this initial phase, only a handful of high-priority study areas were chosen along high-volume Fort Worth Transit Authority (The T) routes, areas with high pedestrian activity, and citizen requests. They included (see **Figure 1** below):

- Medical District – area bounded by Pennsylvania, Henderson, Terrell, and 6th;
- The T Route 1 – Hemphill Street from W. Vickery to Berry;
- The T Route 1a – NW 25th/Azle from Ellis to Long;
- The T Route 2 – E. Lancaster from Oakland to Cravens; and
- Citizen Requests – 9 intersections from citizen requests.

The following sections provide detail for each of the study areas.

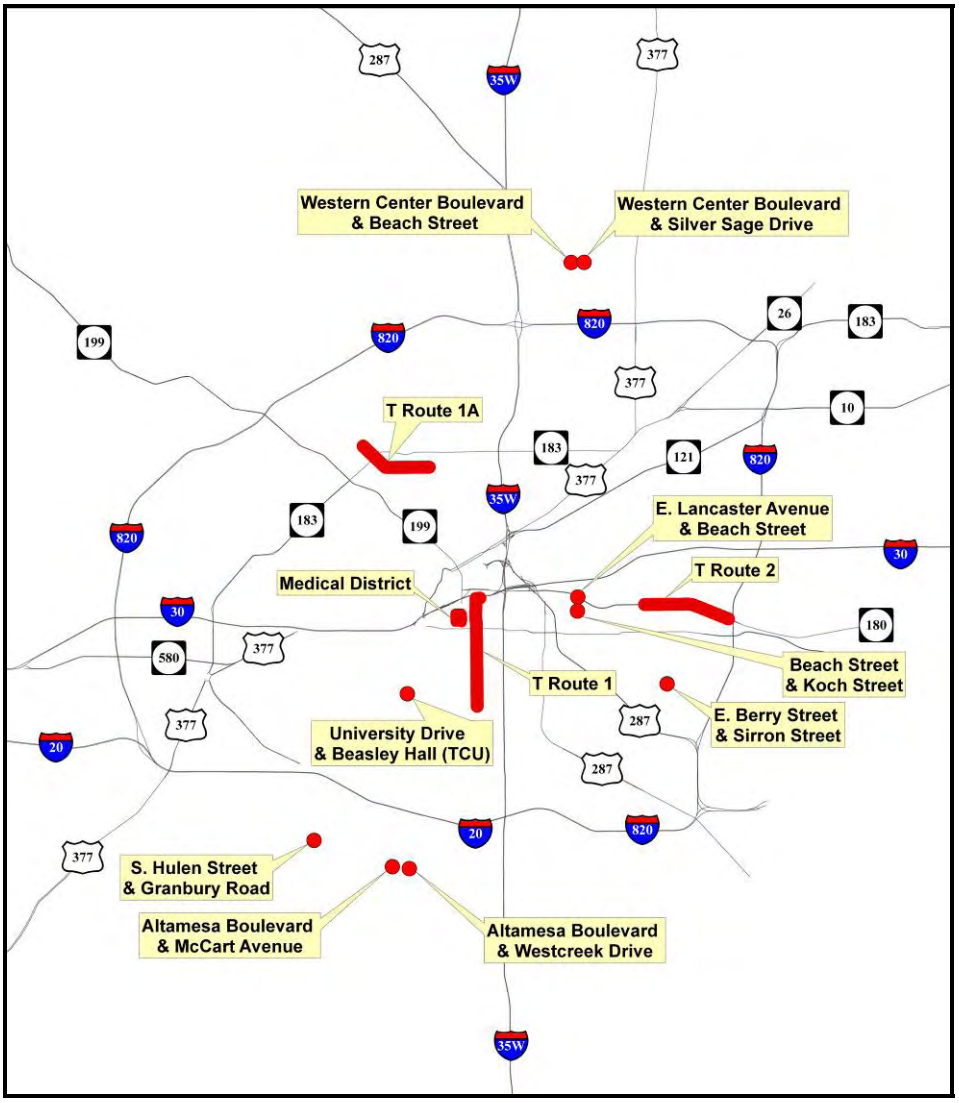


Figure 1. Study Area Summary

A. STUDY AREAS

1. MEDICAL DISTRICT

The Medical District section of the Near Southside of Fort Worth was selected due to the amount of pedestrian traffic generated by the numerous hospitals and medical office buildings in the area. The portion of the Medical District studied as part of this project included 16 intersections bounded by Pennsylvania Avenue to the north, S. Henderson Street to the east, W. Terrell Avenue to the south, and 6th Avenue on the west. Harris Methodist Fort Worth lies within this boundary.

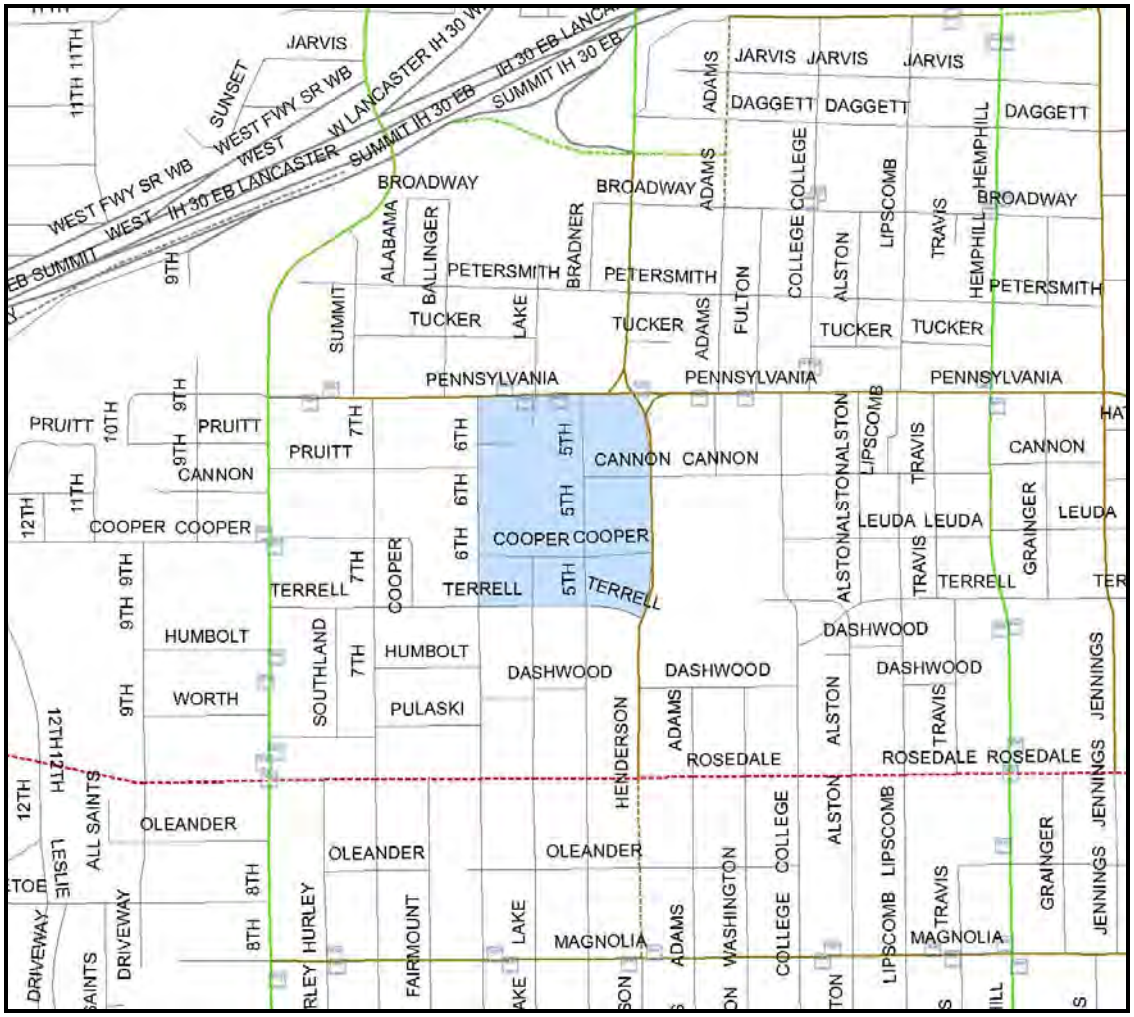


Figure 2. Medical District Study Area

2. THE T ROUTE 1

Route 1 is one of the busiest routes within The T's bus network and serves a high percentage of riders with disabilities. This route runs north – south through the City along N. Main Street and Hemphill Street. The study area limits included 37 intersections along Hemphill Street from W. Vickery Boulevard to Berry Street.

Figure 3. The T Route 1 - Hemphill Street

3. THE T ROUTE 1A

Route 1A is also one of the busiest routes within The T's bus network and runs along NW 25th Street, Azle Avenue, Long Avenue, and Ephriham Avenue. The study area limits included 25 intersections along NW 25th Street and Azle Avenue from Ellis Avenue to Roosevelt Avenue and from McKinley Avenue to W. Long Avenue, respectively.

Figure 4. The T Route 1A – NW 25th Street and Azle Avenue

4. THE T ROUTE 2

Route 2 is the busiest route within The T's bus network and runs along Camp Bowie Boulevard and E. Lancaster Avenue. The study area limits included 21 intersections along E. Lancaster Avenue from Oakland Boulevard to Cravens Road.

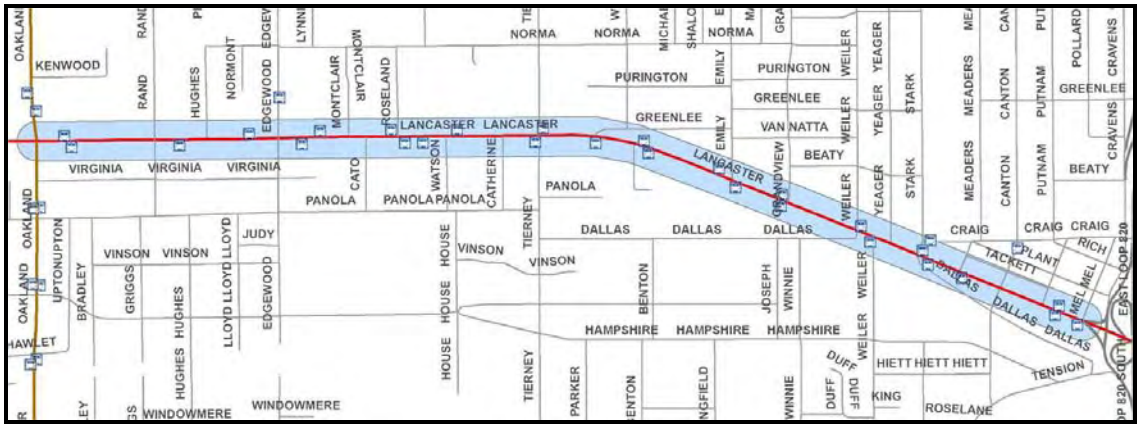


Figure 5. The T Route 2 – E. Lancaster Avenue

5. CITIZEN REQUESTS

As a result of the public involvement process, nine (9) additional intersections identified by citizens as locations with potential accessibility problems were added to the study area. These locations were spread out throughout the City and are listed below (see **Figure 1** for each location):

- Altamesa Boulevard and Westcreek Drive;
- Altamesa Boulevard and McCart Avenue;
- University Drive and Beasley Hall (TCU);
- Western Center Boulevard and Silver Sage Drive;
- Western Center Boulevard and N. Beach Street;
- E. Berry Street and Sirron Street;
- E. Lancaster Avenue and Beach Street;
- S. Beach Street and Koch Street; and
- S. Hulen Street and Granbury Road. *

* *Construction programmed for Summer 2008 will address this intersection.*

B. STUDY RESULTS

The previously described methodology and tools were used to determine the curb ramp improvements needed in each study area to prioritize each improvement and to develop planning level cost projections for the improvements. The results summarized below are categorized by study area and by priority level. Detailed results can be found in **Appendices E** through **G**.

1. COST PROJECT SUMMARY BY STUDY AREA

Cost Projection Summary by Study Area – Medical District		
Priority Level	**Number of Curb Ramps**	**Improvement Cost [1]**
High	29	$79,100
Medium	8	$21,500
Low	2	$2,200
Total Cost for Medical District		**$102,800**

[1] Total cost includes mobilization, engineering/survey, and contingency

Cost Projection Summary by Study Area – The T Route 1		
Priority Level	**Number of Curb Ramps**	**Improvement Cost [1]**
High	78	$238,000
Medium	18	$ 50,200
Low	11	$ 26,600
Total Cost for The T Route 1		**$314,800**

[1] Total cost includes mobilization, engineering/survey, and contingency

Cost Projection Summary by Study Area – The T Route 1a		
Priority Level	**Number of Curb Ramps**	**Improvement Cost [1]**
High	41	$118,000
Medium	45	$121,800
Low	9	$ 25,200
Total Cost for The T Route 1a		**$265,000**

[1] Total cost includes mobilization, engineering/survey, and contingency

Cost Projection Summary by Study Area – The T Route 2		
Priority Level	**Number of Curb Ramps**	**Improvement Cost [1]**
High	45	$154,600
Medium	13	$ 30,000
Low	1	$ 2,800
Total Cost for The T Route 2		**$187,400**

[1] Total cost includes mobilization, engineering/survey, and contingency

Cost Projection Summary by Study Area – Citizen Requests		
Priority Level	**Number of Curb Ramps**	**Improvement Cost [1, 2]**
High	9	$ 37,400
Medium	19	$ 88,200
Low	7	$ 18,900
Total Cost for Citizen Requests		**$144,500**

[1] Total cost includes mobilization, engineering/survey, and contingency
[2] Excludes improvement costs for S. Hulen Street and Granbury Road

2. COST PROJECTION SUMMARY BY PRIORITY LEVEL

Cost Projection Summary by Priority Level		
Priority Level	**Number of Curb Ramps**	**Improvement Cost [1]**
High	202	$ 627,100
Medium	103	$ 311,700
Low	30	$ 75,700
Total Cost for Improvements		**$1,014,500**

[1] Total cost includes mobilization, engineering/survey, and contingency

VI. CITYWIDE PROJECTED COSTS

Based on results from the pilot study and the *2008 Sidewalk Survey* dated March 2008, planning level cost estimates were prepared to replace non-compliant curb ramps throughout the remainder of the City. The following steps and assumptions were made to determine the Citywide need:

- **Step 1 – Define Citywide Study Area**

  The study area was determined by focusing on locations throughout the City experiencing high pedestrian activity. When deciding on the study area boundaries, several factors were taken into consideration:

  - Study areas included the immediate vicinity of civic buildings, transit stops, schools, large employment centers, and arterial streets;
  - The study area radius surrounding these locations were 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 have compliant sidewalks since most were built since the City implemented the sidewalk requirement in its development standards; and
  - Future bond projects and major developments will include sidewalks, so these improvements were not included in the estimated cost for improvements.

  These factors were then used to help define the study area boundaries. Based on discussions with the City, it was determined that a ½ mile radius is a reasonable walking distance as described 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 / 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 either predominately rural, undeveloped land, or newly developed land outside Loop 820 where transit service is not provided. As indicated above, many developments outside Loop 820 are relatively new and were required to construct sidewalks per the City's current development standards.

- **Step 2 – Determine Number of Study Area Intersections**

  - Used GIS computer mapping software to determine the approximate number of intersections within the study area.

  - Adjusted the total number of intersections using the following factors:

    - Urban Factor

      Multiplied the number of study area intersections by the percentage of urban lane miles inventoried during the *2008 Sidewalk Survey* project. Rural cross sections were not included in the cost projections because they typically have a borrow ditch on each side of the road and often don't have curb and gutter, which discourages the installation of sidewalks and curb ramps. In addition, intersections that do not currently have sidewalk also were not included. If sidewalks are installed in the future, curb ramps would also be installed.

    - The T Program

      Coordinated with The T to determine the number of ramps they plan to install, repair, and/or replace as part of their ADA compliance program and subtracted this total from the number of urban intersections calculated above.

    - TxDOT Program

      Coordinated with TxDOT to determine the number of ramps they plan to install, repair, and/or replace as part of their ADA compliance program and subtracted this total from the number of urban intersections calculated above.

    - City of Fort Worth Arterial Bond Projects

      Coordinated with T/PW to determine the number of intersections included in future arterial projects and subtracted this total from the number of urban intersections calculated above.

- **Step 3 – Determine Percentage of High, Medium, and Low Priority Intersections**

  Using data collected as part of the pilot study, determined the percentage of high, medium, and low priority intersections out of the total number of intersections surveyed.

- **Step 4 – Determine Average Cost for High, Medium, and Low Priority Intersections**

  Using data collected as part of the pilot study, calculated the average cost per corner to bring high, medium, and low priority intersections into compliance.

- **Step 5 – Calculate the Citywide ADA Ramp Compliance Need**

  Used the following formula for each priority level to determine the estimated Citywide cost:

  (# of study area intersections) x (% of high/medium/low intersections) x (Average Cost per High/medium/low priority intersection)

Using the process outlined above, a planning level Citywide improvement cost projection was developed. The variables used for this calculation, along with the planning level costs, are detailed below.

- Total number of study area intersections: 13,851
- % of study area with urban cross-section: 45.7%
- Number of curb ramp intersections: 6,060
- Approximate number of curb ramps: 24,240 (assumed 4 ramps / intersection)
- % of high priority curb ramps: 54%
- % of medium priority intersections: 27%
- % of low priority intersections: 9%
- Average cost for high priority intersections: $3,132
- Average cost for medium priority intersections: $3,027
- Average cost for low priority intersections: $2,603

Citywide Curb Ramp Improvement Cost Projection				
Priority Level	**Priority %**	**# of Curb Ramps**	**Average Cost per Curb Ramp**	**Total Cost**
High	54%	13,090	$3,132	$40,997,880
Medium	27%	6,545	$3,027	$19,811,715
Low	9%	2,182	$2,603	$5,679,746
			Citywide Cost Projection	**$66,489,341**

VII. IDENTIFICATION OF FUTURE STUDY AREAS

The process outlined in this study should be used to identify future study areas. All project stakeholders should be allowed to provide input in order to get the best cross section of study areas. Future study areas should have high pedestrian activity and include numerous pedestrian attractors. Available funding will determine the number and size of study areas that can be studied at any one time.

VIII. COORDINATION WITH OTHER PROGRAMS

Prior to meeting with project stakeholders to discuss future study areas, all on-going curb ramp improvement projects throughout the City should be identified. At the time of this study, the Texas Department of Transportation (TxDOT) and The T have on-going curb ramp replacement projects. These two entities should be contacted periodically to determine if they have any on-going projects so that funding won't be allocated to the same locations. Existing and future City arterial projects also should be identified and not be included in future study areas since sidewalks and curb ramps will be included in these projects.

IX. POTENTIAL POLICY CHANGES

A. STANDARD SIDEWALK WIDTH

The City's current minimum sidewalk width is 4 feet. Per the ADA, a 5 foot bulb out is required every 200 linear feet of sidewalk to allow for a person traveling by wheelchair to turn around. In addition, current practice suggests that a 4-foot sidewalk is too narrow for two pedestrians walking side-by-side or passing each other to share. The City should consider increasing the minimum standard sidewalk width to 5 feet. A standard 5-foot sidewalk would eliminate the need to install bulb outs every 200 feet and will provide additional comfort for pedestrians, making walking a more attractive travel option. If this policy change were implemented, the City's sidewalk standard and curb ramp and driveway standard details and specifications would need to be modified.

B. INSPECTION PROCEDURES

Per Texas' Architectural Barriers Act, any construction project for a public facility or a place of public accommodation that is more than $50,000 requires all accessible routes to be registered and inspected. Plans for projects of this size should be submitted to the Texas Department of Licensing and Registration (TDLR) for review and inspections conducted after construction to ensure compliance with the ADA.

If there are City owned projects that do not meet the requirements of a TDLR submittal, the responsibility to ensure that the accessible routes are ADA compliant falls on the Engineer and/or City. During plan reviews, all accessible routes should be reviewed for compliance with the ADA. During construction, City inspectors should also check for compliance. Because not all City inspectors have the required training to determine if a ramp is in

compliance, additional training is recommended. TDLR provides training to become a Registered Accessibility Specialist (RAS). Consulting firms such as Accessology, Inc. can also be hired to provide in-house training to both City review and project inspection staffs.

X. PROGRAM FUNDING

Implementation of the curb ramp improvement program will require the allocation of significant City resources. Potential funding sources for this program include future City bond programs, TxDOT, North Central Texas Council of Governments, public/private partnerships, Fort Worth Transportation Authority, private sector grants, Tax Increment Finance (TIF) Districts, Public Improvement Districts (PIDs), and development agreements.

High, medium, and low priority curb ramps may exist at the same intersection. Due to limited funding, the high priority ramps should be replaced first so that the most dangerous ramps are eliminated. When replacing high priority curb ramps, the City should consider replacing any identified medium priority ramps located nearby, if cost efficiency would result. Other medium and all low priority locations can be improved in the future if funding is available and all of the high priority curb ramps have been eliminated.

XI. CONCLUSION AND NEXT STEPS

The City of Fort Worth, along with most cities across the nation, is challenged by a significant number of ADA compliance issues. The City is actively developing plans to improve its compliance and the steps described in this report form a major component of that effort. The estimated cost of $66.5 million to bring the City's curb ramps into compliance is a staggering number. Investment decisions should be prioritized using the findings in this report. Since these needs cannot be met overnight, a well defined, strategic, long-term plan needs to be in place to help the City allocate funds in the future. The methodology and initial study detailed in this report will serve as the basis for this effort and will guide future work as more funding becomes available to study additional areas.

APPENDICES

A. STAKEHOLDER AND PUBLIC INVOLVEMENT MEETINGS SUMMARY

B. SAMPLE FIELD FORM

C. PILOT STUDY FIELD FORMS

D. T/PW DEPARTMENT – TRAFFIC SERVICES DIVISION SIDEWALK RAMP DETAILS SHEET

E. HIGH PRIORITY PROJECT LIST

F. MEDIUM PRIORITY PROJECT LIST

G. LOW PRIORITY PROJECT LIST

Appendix A –
Stakeholder and Public Involvement Meetings Summary

Stakeholder and Public Involvement Meetings Summary

Public Meetings

- December 13, 2007 — Public Meeting
- April 24, 2008 — Public Meeting held in conjunction with the Transition and Disability Resource Expo

Other Stakeholder Meetings

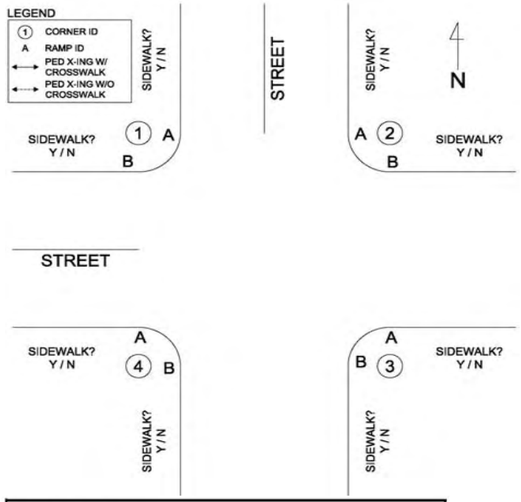
- August 24, 2007 — Meeting with City T/PW staff
- September 28, 2007 — Meeting with City T/PW staff and The T
- October 25, 2007 — Meeting with Mayor's Committee on Persons with Disabilities – Access Sub-Committee
- November 1, 2007 — Presentation to the Mayor's Committee on Persons with Disabilities
- November 26, 2007 — Meeting with City T/PW staff
- January 17, 2008 — Meeting with City T/PW staff
- February 19, 2008 — Meeting with City T/PW staff
- March 20, 2008 — Meeting with Mayor's Committee on Persons with Disabilities – Access Sub-Committee
- April 3, 2008 — Presentation to the Mayor's Committee on Persons with Disabilities
- June 26, 2008 — Presentation of final report to the Mayor's Committee on Persons with Disabilities – Access Sub-Committee
- July 8, 2008 — Presentation to City Council's Infrastructure and Transportation Committee

Appendix B – Sample Field Form

INTERSECTION ID: _____

City of Fort Worth

ADA Ramp Inventory Field Checklist



Data collection date:	
Data collected by:	

Location Information - Corner is near (within 3 blocks):

- ☐ Hospital or Retirement Home
- ☐ Bus/Transit Stop
- ☐ Major Employer
- ☐ Gov't Bldg, Public Park or Public Facility (library, civic center, etc.)

Potential construction constraints

a) Drainage structure conflict
b) Utility conflict
c) Small sign relocation req'd
d) Signal support relocation req'd
e) Historic elements exist
f) High curbs/elevation obstacle
g) Other (please describe)

Crossings

- ☐ Striped crosswalk exists
- ☐ Median/island crossings accessible

Ramp Improvement Priority
High Priority
Running slope > 11%
Cross slope > 6%
Dangerous sides
Dangerous transitions
Medium Priority
Running slope between 9.5% and 10.9%
Cross slope between 4% and 5.9%
Non compliant sides (not dangerous)
Non compliant transitions (not dangerous)
Low Priority
Running slope between 8.3% and 9.4%
Cross slope between 2% and 3.9%
No color / texture differential

Notes:

Corner 1

☐ **No curb ramp (s)**
- ☐ Curb Exists
- ☐ Pedestrian made path exists
- ☐ Curb cut exists
- ☐ No sidewalk or path currently exists

☐ **Has curb ramp (s)**
- ☐ Serves two crossing directions
- ☐ Serves one crossing direction
  - ☐ Additional ramp needed
- ☐ Has 48" extension into crosswalk

List potential construction constraints (see box to the left)

Details for each ramp:

Curb Ramp:	**Priority:** (H, M, or L)	**Curb Ramp:**	**Priority:** (H, M, or L)
Type ☐ Built up ☐ Parallel	☐ Recess ☐ Return	Type ☐ Built up ☐ Parallel	☐ Recess ☐ Return
Running slope (%):	Cross slope (%):	Running slope (%):	Cross slope (%):
Width (in.):		Width (in.):	
Texture contrast: ☐ Grooves	☐ Domes ☐ None	Texture contrast: ☐ Grooves	☐ Domes ☐ None
Color Contrast	☐ Yes ☐ No	Color Contrast	☐ Yes ☐ No
Landings ☐ Good	☐ Not Compliant ☐ NA	Landings ☐ Good	☐ Not Compliant ☐ NA
Obstructions	☐ Yes ☐ No	Obstructions	☐ Yes ☐ No
Ramp lands in crosswalk?	☐ Yes ☐ No	Ramp lands in crosswalk?	☐ Yes ☐ No
Flush transition	☐ Bevelled ☐ Flush ☐ Lipped	Flush transition	☐ Bevelled ☐ Flush ☐ Lipped
Flares (max 10%)	☐ Good ☐ Steep ☐ Curbed	Flares (max 10%)	☐ Good ☐ Steep ☐ Curbed
Water ponding?	☐ Yes ☐ No	Water ponding?	☐ Yes ☐ No
Pedestrian push buttons present	☐ Yes ☐ No	Pedestrian push buttons present	☐ Yes ☐ No
Pedestrian push button accessible	☐ Yes ☐ No	Pedestrian push button accessible	☐ Yes ☐ No
Clear floor space (30"x48")	☐ Yes ☐ No	Clear floor space (30"x48")	☐ Yes ☐ No
Push button height > 48"	☐ Yes ☐ No	Push button height > 48"	☐ Yes ☐ No
Button diameter < 2"	☐ Yes ☐ No	Button diameter < 2"	☐ Yes ☐ No
Suggested ramp improvement: *Refer to City standard types*		**Suggested ramp improvement:** *Refer to City standard types*	

Corner 2

☐ **No curb ramp (s)**
- ☐ Curb Exists
- ☐ Pedestrian made path exists
- ☐ Curb cut exists
- ☐ No sidewalk or path currently exists

☐ **Has curb ramp (s)**
- ☐ Serves two crossing directions
- ☐ Serves one crossing direction
  - ☐ Additional ramp needed
- ☐ Has 48" extension into crosswalk

List potential construction constraints (see box to the left)

Details for each ramp:

Curb Ramp:	**Priority:** (H, M, or L)	**Curb Ramp:**	**Priority:** (H, M, or L)
Type ☐ Built up ☐ Parallel	☐ Recess ☐ Return	Type ☐ Built up ☐ Parallel	☐ Recess ☐ Return
Running slope (%):	Cross slope (%):	Running slope (%):	Cross slope (%):
Width (in.):		Width (in.):	
Texture contrast: ☐ Grooves	☐ Domes ☐ None	Texture contrast: ☐ Grooves	☐ Domes ☐ None
Color Contrast	☐ Yes ☐ No	Color Contrast	☐ Yes ☐ No
Landings ☐ Good	☐ Not Compliant ☐ NA	Landings ☐ Good	☐ Not Compliant ☐ NA
Obstructions	☐ Yes ☐ No	Obstructions	☐ Yes ☐ No
Ramp lands in crosswalk?	☐ Yes ☐ No	Ramp lands in crosswalk?	☐ Yes ☐ No
Flush transition	☐ Bevelled ☐ Flush ☐ Lipped	Flush transition	☐ Bevelled ☐ Flush ☐ Lipped
Flares (max 10%)	☐ Good ☐ Steep ☐ Curbed	Flares (max 10%)	☐ Good ☐ Steep ☐ Curbed
Water ponding?	☐ Yes ☐ No	Water ponding?	☐ Yes ☐ No
Pedestrian push buttons present	☐ Yes ☐ No	Pedestrian push buttons present	☐ Yes ☐ No
Pedestrian push button accessible	☐ Yes ☐ No	Pedestrian push button accessible	☐ Yes ☐ No
Clear floor space (30"x48")	☐ Yes ☐ No	Clear floor space (30"x48")	☐ Yes ☐ No
Push button height > 48"	☐ Yes ☐ No	Push button height > 48"	☐ Yes ☐ No
Button diameter < 2"	☐ Yes ☐ No	Button diameter < 2"	☐ Yes ☐ No
Suggested ramp improvement: *Refer to City standard types*		**Suggested ramp improvement:** *Refer to City standard types*	

Corner 3

☐ **No curb ramp (s)**
- ☐ Curb Exists
- ☐ Pedestrian made path exists
- ☐ Curb cut exists
- ☐ No sidewalk or path currently exists

☐ **Has curb ramp (s)**
- ☐ Serves two crossing directions
- ☐ Serves one crossing direction
  - ☐ Additional ramp needed
- ☐ Has 48" extension into crosswalk

List potential construction constraints (see box to the left)

Details for each ramp:

Curb Ramp:	**Priority:** (H, M, or L)	**Curb Ramp:**	**Priority:** (H, M, or L)
Type ☐ Built up ☐ Parallel	☐ Recess ☐ Return	Type ☐ Built up ☐ Parallel	☐ Recess ☐ Return
Running slope (%):	Cross slope (%):	Running slope (%):	Cross slope (%):
Width (in.):		Width (in.):	
Texture contrast: ☐ Grooves	☐ Domes ☐ None	Texture contrast: ☐ Grooves	☐ Domes ☐ None
Color Contrast	☐ Yes ☐ No	Color Contrast	☐ Yes ☐ No
Landings ☐ Good	☐ Not Compliant ☐ NA	Landings ☐ Good	☐ Not Compliant ☐ NA
Obstructions	☐ Yes ☐ No	Obstructions	☐ Yes ☐ No
Ramp lands in crosswalk?	☐ Yes ☐ No	Ramp lands in crosswalk?	☐ Yes ☐ No
Flush transition	☐ Bevelled ☐ Flush ☐ Lipped	Flush transition	☐ Bevelled ☐ Flush ☐ Lipped
Flares (max 10%)	☐ Good ☐ Steep ☐ Curbed	Flares (max 10%)	☐ Good ☐ Steep ☐ Curbed
Water ponding?	☐ Yes ☐ No	Water ponding?	☐ Yes ☐ No
Pedestrian push buttons present	☐ Yes ☐ No	Pedestrian push buttons present	☐ Yes ☐ No
Pedestrian push button accessible	☐ Yes ☐ No	Pedestrian push button accessible	☐ Yes ☐ No
Clear floor space (30"x48")	☐ Yes ☐ No	Clear floor space (30"x48")	☐ Yes ☐ No
Push button height > 48"	☐ Yes ☐ No	Push button height > 48"	☐ Yes ☐ No
Button diameter < 2"	☐ Yes ☐ No	Button diameter < 2"	☐ Yes ☐ No
Suggested ramp improvement: *Refer to City standard types*		**Suggested ramp improvement:** *Refer to City standard types*	

Corner 4

☐ **No curb ramp (s)**
- ☐ Curb Exists
- ☐ Pedestrian made path exists
- ☐ Curb cut exists
- ☐ No sidewalk or path currently exists

☐ **Has curb ramp (s)**
- ☐ Serves two crossing directions
- ☐ Serves one crossing direction
  - ☐ Additional ramp needed
- ☐ Has 48" extension into crosswalk

List potential construction constraints (see box to the left)

Details for each ramp:

Curb Ramp:	**Priority:** (H, M, or L)	**Curb Ramp:**	**Priority:** (H, M, or L)
Type ☐ Built up ☐ Parallel	☐ Recess ☐ Return	Type ☐ Built up ☐ Parallel	☐ Recess ☐ Return
Running slope (%):	Cross slope (%):	Running slope (%):	Cross slope (%):
Width (in.):		Width (in.):	
Texture contrast: ☐ Grooves	☐ Domes ☐ None	Texture contrast: ☐ Grooves	☐ Domes ☐ None
Color Contrast	☐ Yes ☐ No	Color Contrast	☐ Yes ☐ No
Landings ☐ Good	☐ Not Compliant ☐ NA	Landings ☐ Good	☐ Not Compliant ☐ NA
Obstructions	☐ Yes ☐ No	Obstructions	☐ Yes ☐ No
Ramp lands in crosswalk?	☐ Yes ☐ No	Ramp lands in crosswalk?	☐ Yes ☐ No
Flush transition	☐ Bevelled ☐ Flush ☐ Lipped	Flush transition	☐ Bevelled ☐ Flush ☐ Lipped
Flares (max 10%)	☐ Good ☐ Steep ☐ Curbed	Flares (max 10%)	☐ Good ☐ Steep ☐ Curbed
Water ponding?	☐ Yes ☐ No	Water ponding?	☐ Yes ☐ No
Pedestrian push buttons present	☐ Yes ☐ No	Pedestrian push buttons present	☐ Yes ☐ No
Pedestrian push button accessible	☐ Yes ☐ No	Pedestrian push button accessible	☐ Yes ☐ No
Clear floor space (30"x48")	☐ Yes ☐ No	Clear floor space (30"x48")	☐ Yes ☐ No
Push button height > 48"	☐ Yes ☐ No	Push button height > 48"	☐ Yes ☐ No
Button diameter < 2"	☐ Yes ☐ No	Button diameter < 2"	☐ Yes ☐ No
Suggested ramp improvement: *Refer to City standard types*		**Suggested ramp improvement:** *Refer to City standard types*	

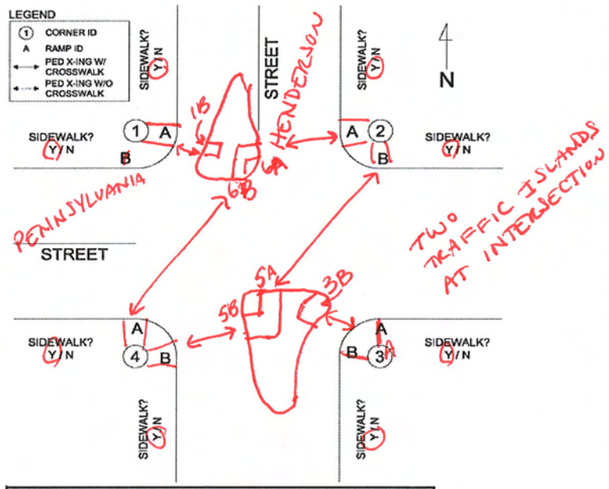
Appendix C – Pilot Study Field Forms
(See Separate Appendix C Document)

PHOTOS ON DISK TWO - MEDICAL DISTRICT

INTERSECTION ID: MD-4

FORT WORTH

City of Fort Worth
ADA Ramp Inventory Field Checklist



Data collection date: FEB 20, 2008

Data collected by: Bonnie Anderson

Location Information - Corner is near (within 3 blocks):
- [x] Hospital or Retirement Home
- [x] Bus/Transit Stop
- [x] Major Employer
- [x] Gov't Bldg, Public Park or Public Facility (library, civic center, etc.)

Potential construction constraints
a) Drainage structure conflict
b) Utility conflict
c) Small sign relocation req'd
d) Signal support relocation req'd
e) Historic elements exist
f) High curbs/elevation obstacle
g) Other (please describe)

Ramp Improvement Priority

High Priority
- Running slope > 11%
- Cross slope > 6%
- Dangerous sides
- Dangerous transitions

Medium Priority
- Running slope between 9.5% and 10.9%
- Cross slope between 4% and 5.9%
- Non compliant sides (not dangerous)
- Non compliant transitions (not dangerous)

Low Priority
- Running slope between 8.3% and 9.4%
- Cross slope between 2% and 3.9%
- No color / texture differential

Crossings
- [x] Striped crosswalk exists
- [x] Median/Island crossings accessible

Notes:
MD4-2A EXPANSION JOINT AT TRANSITION NEEDS FILLED

MD4-2B EXTREMELY DANGEROUS TRANSITION (1½-2" level change)

MD4-3A TRANSITION CRACKED W/gaps. CURB RAMP CREATES A CROSS SLOPE OF 5.5-10.2% FOR SIDEWALK TRAFFIC.

MD4-4A → DANGEROUS TRANSITIONS AT UPPER EDGE & ROADWAY
→ 30"x48" CLEAR FLOOR SPACE FOR PEDESTRIAN BUTTON APPROX 3" OFF CENTER

MD4-4B LANDING SLOPE 3.5-4.6%

Corner 1

- [ ] No curb ramp (s)
  - [ ] Curb Exists
  - [ ] Pedestrian made path exists
  - [ ] Curb cut exists
  - [ ] No sidewalk or path currently exists
- [x] Has curb ramp (s)
  - [x] Serves two crossing directions
  - [ ] Serves one crossing direction
    - [ ] Additional ramp needed
  - [ ] Has 48" extension into crosswalk – N/A

List potential construction constraints (see box to the left): N/A

Details for each ramp:

	Curb Ramp: MD-4-1A	Curb Ramp: MD-4-1B
Priority: (H, M, or L)	Non	
Type	Parallel	Recess
Running slope (%)	7.2-8.1%	5.9-7.4%
Cross slope (%)	2.3-2.9%	.2-.8%
Width (in.)	48"	45"
Texture contrast	Grooves	Grooves
Color Contrast	No	No
Landings	Good	Good
Obstructions	No	No
Ramp lands in crosswalk?	Yes	Yes
Flush transition	Bevelled	Lipped
Flares (max 10%)	Curbed	Curbed
Water ponding?	No	No
Pedestrian push buttons present	No	No
Pedestrian push button accessible	No	No
Clear floor space (30"x48")	N/A	N/A
Push button height > 48"		
Button diameter < 2"		
Suggested ramp improvement: Refer to City standard types	NONE REQ'D	NONE REQ'D

Corner 2

- [ ] No curb ramp (s)
  - [ ] Curb Exists
  - [ ] Pedestrian made path exists
  - [ ] Curb cut exists
  - [ ] No sidewalk or path currently exists
- [x] Has curb ramp (s)
  - [x] Serves two crossing directions
  - [ ] Serves one crossing direction
    - [ ] Additional ramp needed
  - [ ] Has 48" extension into crosswalk – N/A

List potential construction constraints (see box to the left): C, D, G

Details for each ramp:

	Curb Ramp: MD-4-2A	Curb Ramp: MD42-B
Priority: (H, M, or L)	H	H
Type	Recess	Return
Running slope (%)	9.9-13.9%	8.1-9.1%
Cross slope (%)	1.3-2.3%	1.2-2.3%
Width (in.)	45"	45"
Texture contrast	Grooves	Grooves
Color Contrast	No	No
Landings	Good	Not Compliant
Obstructions	No	No
Ramp lands in crosswalk?	Yes	Yes
Flush transition	Lipped	Lipped
Flares (max 10%)	Curbed	Good
Water ponding?	No	No
Pedestrian push buttons present	Yes	Yes
Pedestrian push button accessible	Yes	Yes
Clear floor space (30"x48")	Yes	Yes
Push button height > 48"	Yes	Yes
Button diameter < 2"	Yes	No
Suggested ramp improvement: Refer to City standard types	TYPE F or A	TYPE F or A

Corner 3

- [ ] No curb ramp (s)
  - [ ] Curb Exists
  - [ ] Pedestrian made path exists
  - [ ] Curb cut exists
  - [ ] No sidewalk or path currently exists
- [x] Has curb ramp (s)
  - [x] Serves two crossing directions
  - [ ] Serves one crossing direction
    - [ ] Additional ramp needed
  - [ ] Has 48" extension into crosswalk N/A

List potential construction constraints (see box to the left): B, C, D

Details for each ramp:

	Curb Ramp: MD-4-3A	Curb Ramp: MD4-3B
Priority: (H, M, or L)	H	M
Type	Return	Return
Running slope (%)	7.1-7.2%	9.9-10.6%
Cross slope (%)	3.1-4.8%	1.0-1.6%
Width (in.)	46"	53"
Texture contrast	Grooves	Grooves
Color Contrast	No	No
Landings	Not Compliant	Good
Obstructions	No	No
Ramp lands in crosswalk?	Yes	Yes
Flush transition	Bevelled	Lipped
Flares (max 10%)	Good	Good
Water ponding?	No	No
Pedestrian push buttons present	No	No
Pedestrian push button accessible	No	No
Clear floor space (30"x48")	No	No
Push button height > 48"	N/A	N/A
Button diameter < 2"	No	No
Suggested ramp improvement: Refer to City standard types	TYPE H or G	TYPE K or A

Corner 4

- [ ] No curb ramp (s)
  - [ ] Curb Exists
  - [ ] Pedestrian made path exists
  - [ ] Curb cut exists
  - [ ] No sidewalk or path currently exists
- [x] Has curb ramp (s)
  - [x] Serves two crossing directions
  - [ ] Serves one crossing direction
    - [ ] Additional ramp needed
  - [ ] Has 48" extension into crosswalk N/A

List potential construction constraints (see box to the left): D

Details for each ramp:

	Curb Ramp: MD4-4A	Curb Ramp: MD4-4B
Priority: (H, M, or L)	H	H
Type	Parallel	Parallel
Running slope (%)	6.7-9.5%	10.0-11.2%
Cross slope (%)	3.5-3.8%	1.3-3.0%
Width (in.)	93"	92"
Texture contrast	None	None
Color Contrast	No	No
Landings	Not Compliant	Not Compliant
Obstructions	No	No
Ramp lands in crosswalk?	Yes	Yes
Flush transition	Lipped	Lipped
Flares (max 10%)	Curbed	Curbed
Water ponding?	No	No
Pedestrian push buttons present	Yes	Yes
Pedestrian push button accessible	Yes	Yes
Clear floor space (30"x48")	Yes	Yes
Push button height > 48"	Yes	Yes
Button diameter < 2"	Yes	Yes
Suggested ramp improvement: Refer to City standard types	NONE REQ'D - SEE NOTES	TYPE E H or G

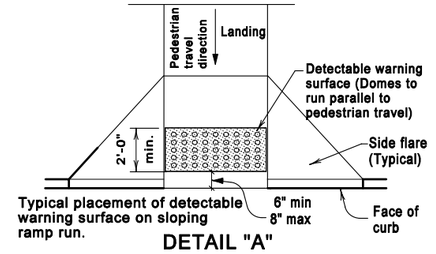
Appendix D – T/PW Department – Traffic Services Division Sidewalk Ramp Detail Sheet

DETECTABLE WARNINGS

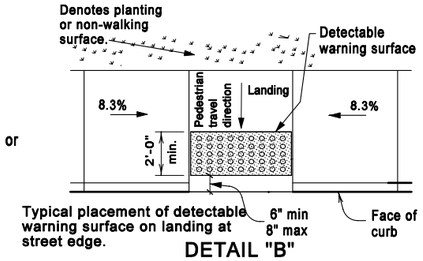
GENERAL NOTES FOR DETECTABLE WARNINGS

ON SIDEWALK RAMPS (CURB RAMPS)

1. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 4.29 of the Texas Accessibility Standards (TAS). The surface must contrast visually with adjoining surfaces, including side flares. Furnish dark brown or dark red detectable warning surface adjacent to uncolored concrete, unless specified elsewhere in the plans.
2. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
3. Align truncated domes in the direction of pedestrian travel when entering the street.
4. Shaded areas indicate the approximate location for the detectable warning surface for each curb ramp type.
5. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
6. Detectable warning surfaces shall be located so that the edge nearest the curb line is a minimum of 6" and a maximum of 8" from the extension of the face of curb. Detectable warning surfaces may be curved along the corner radius.
7. The following is an approved list of Cast-In-Place Detectable Warning Materials and their manufacturers:
   - 7a. Armor Tile (vitrified polymer composite) by Engineered Plastics, Inc., Williamsville, NY.
   - 7b. Tactile Pavers (fired clay pavers) by Pine Hall Brick; Winston-Salem, NC.
   - 7c. Detectable Warning Paver (fired clay pavers) by Western Brick Co., Houston, Tx.
8. The above list of Detectable Warning Materials or their approved equal shall be used as the Detectable Warning surface on sidewalk (curb) ramps as shown on the plans and or details on this sheet.



DETAIL "A"

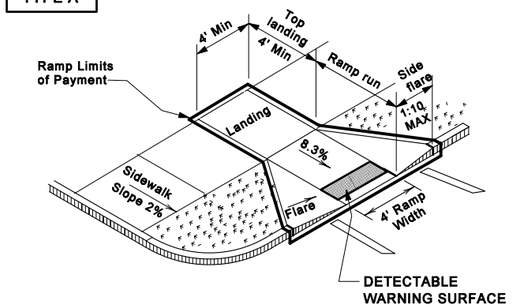


DETAIL "B"

SIDEWALK RAMP (CURB RAMP) GENERAL NOTES

1. All slopes are maximum allowable. The least possible slope that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
2. The minimum sidewalk width is 4'.
3. Landings shall be 4'x 4' minimum with a maximum 2% slope in any direction.
4. Maneuvering space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
5. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
6. Curb ramps with returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planting or other non-walking surface or because the side approach is substantially obstructed. Otherwise, provide flared sides.
7. Details on this plan apply to all construction or reconstruction of streets, curbs, or sidewalks
8. To serve as a pedestrian refuge area, the median should be a minimum of 5' wide. Medians should be designed to provide accessible passage through them.
9. Curb cut ramps are to be located as shown on the plans or as directed by Engineer.
10. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall be aligned with theoretical crosswalks, or as directed by the Engineer.
11. Existing features that comply with TAS may remain in place unless changed on the plans.
12. Ramps shall be provided at all corners of street intersections where there is existing or proposed sidewalk and curb. Ramps shall also be provided at walk locations in mid-block in the vicinities of hospitals, medical centers, and stadiums.
13. Surface texture of the ramp shall be that obtained by a course brooming, transverse to the slope of the ramp except at detectable warning surface areas. See details A and B.
14. Separate curb ramp and landings from adjacent sidewalk and any other elements with premold or board joint of 3/4 " unless otherwise directed by the Engineer.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curbs shown on this sheet within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
17. Flare slope shall not exceed 10% measured along curb line and where pedestrians could walk across the ramp, then Maximum slope shall be 1:12. (8.3 %).
18. Sidewalks shall be ramped where the driveway curb is extended across the walk.
19. If possible, drainage structures should not be placed in line with ramps. Location of the ramps should take precedence over location of the drainage structure.
20. The normal gutter line profile shall be matained through the area of the ramp.
21. The actual limits of existing curb and gutter and sidewalk shall be directed by the engineer in the field.
22. Contraction joints, expansion joints and silicone sealing shall be subsidiary to unit price bid for sidewalks and ramps.

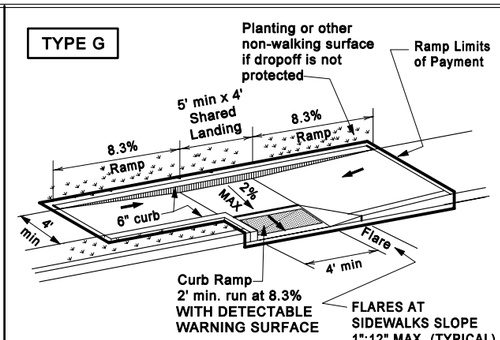
TYPE A



PERPENDICULAR CURB RAMP

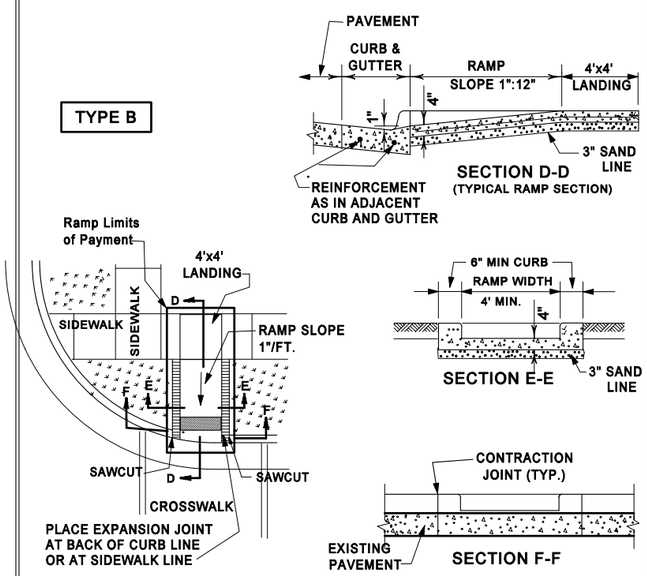
WITH SIDE FLARES NOT ADJACENT TO WALK SURFACE

TYPE G



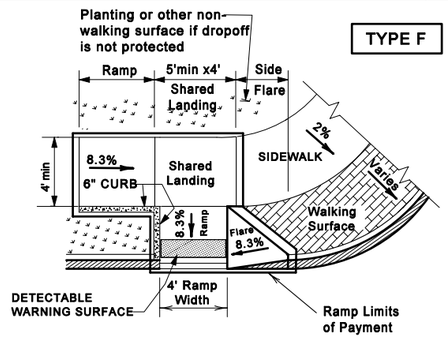
COMBINATION CURB RAMPS

TYPE B



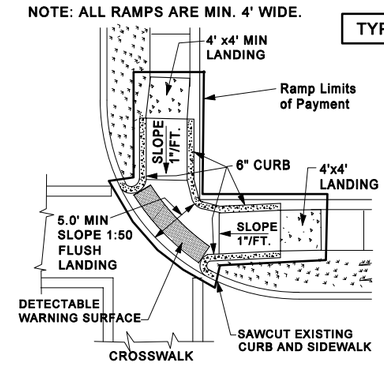
PERPENDICULLAR CURB RAMP (RETURNED CURB)

TYPE F



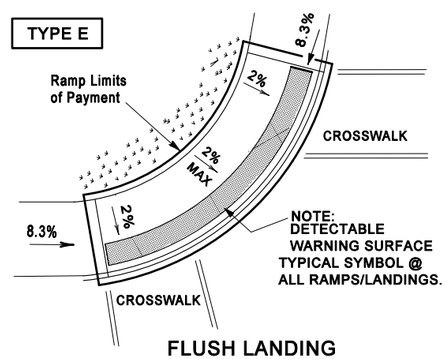
COMBINATION CURB RAMPS

TYPE H



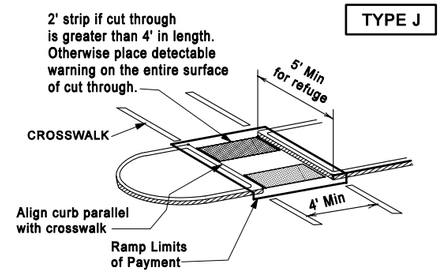
PERPENDICULAR RAMP @ FLUSH LANDING

TYPE E



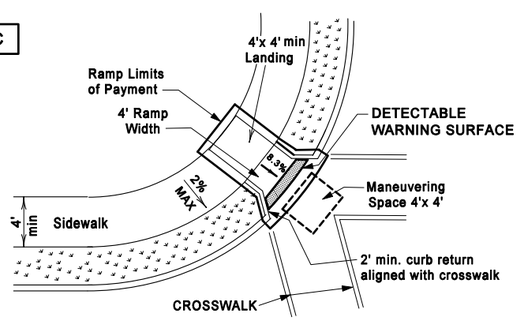
FLUSH LANDING

TYPE J



CUT THROUGH AT MEDIAN ISLANDS

TYPE C

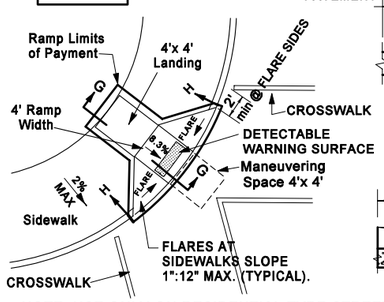


NOTE: USE ONLY ON RESIDENTIAL TYPE STREETS

DIAGONAL CURB RAMP (RETURNED CURB)

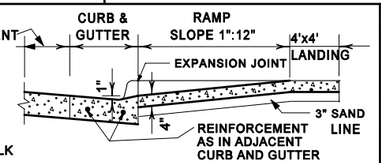
Perpendicular to the Tangent of the Curb Radius and Contained in Crosswalk

TYPE D



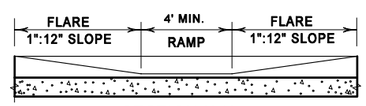
NOTE: USE ONLY ON RESIDENTIAL TYPE STREETS

DIAGONAL CURB RAMP (FLARED SIDES)



SECTION G-G

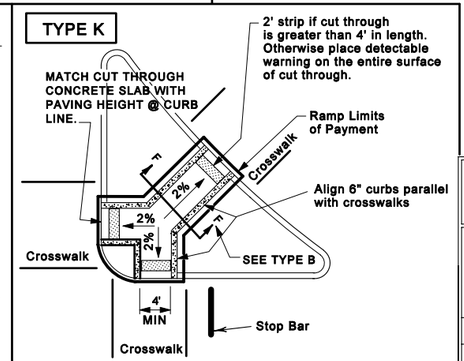
(TYPICAL RAMP SECTION)



SECTION H-H

(TYPICAL RAMP SECTION)

TYPE K



COMBINATION ISLAND CUT THROUGH

DEPT OF TRANSPORTATION AND PUBLIC WORKS
TRAFFIC SERVICES DIVISION

FORT WORTH

SIDEWALK RAMP DETAILS

FORT WORTH, TEXAS

DESIGNED BY: JOE RADENZ	DATE: 2-09-07	CHECKED BY: RONNIE R. VARNELL	DATE: 2-19-07
DRAWN BY: JOE RADENZ	DATE: 2-19-07	APPROVED BY:	DATE:
SCALE: N.T.S.	DRAWING No.: S7	SHEET No.	OF

Appendix E – High Priority Project List

High Priority Curb Ramp Improvements												
RampID	Int_ID	Study Area	Street1	Street2	Corner	Priority	Improve_Type	Improve_Other	Improve_Cost	Other_Cost	Total_Cost	PAS
TR1-37-2	TR1-37	The T Route 1	Hemphill	Berry	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	62.88
TR2-4-1A	TR2-4	The T Route 2	East Lancaster	Edgewood	-1A	H	TYPE H	Trans	$ 2,000	$ 750	$ 2,750	60.88
TR2-4-2	TR2-4	The T Route 2	East Lancaster	Edgewood	-2	H	TYPE D	None	$ 1,500	$ -	$ 1,500	60.88
TR2-4-3A	TR2-4	The T Route 2	East Lancaster	Edgewood	-3A	H	TYPE A	None	$ 1,500	$ -	$ 1,500	60.88
TR2-4-3B	TR2-4	The T Route 2	East Lancaster	Edgewood	-3B	H	TYPE A	Trans	$ 1,500	$ 750	$ 2,250	60.88
TR2-4-4A	TR2-4	The T Route 2	East Lancaster	Edgewood	-4A	H	TYPE A	None	$ 1,500	$ -	$ 1,500	60.88
TR2-4-4B	TR2-4	The T Route 2	East Lancaster	Edgewood	-4B	H	TYPE A	Trans	$ 1,500	$ 750	$ 2,250	60.88
TR2-15-1	TR2-15	The T Route 2	East Lancaster	Yeager	-1	H	TYPE E	None	$ 1,750	$ -	$ 1,750	56.88
TR2-15-2	TR2-15	The T Route 2	East Lancaster	Yeager	-2	H	TYPE C	Trans	$ 1,500	$ 750	$ 2,250	56.88
TR2-16-1A	TR2-16	The T Route 2	East Lancaster	Craig	-1A	H	TYPE B	Trans	$ 1,500	$ 750	$ 2,250	52.88
TR2-16-1B	TR2-16	The T Route 2	East Lancaster	Craig	-1B	H	TYPE B	None	$ 1,500	$ -	$ 1,500	52.88
TR2-16-2A	TR2-16	The T Route 2	East Lancaster	Craig	-2A	H	TYPE D	None	$ 1,500	$ -	$ 1,500	52.88
TR2-14-1B	TR2-14	The T Route 2	East Lancaster	Weiler	-1B	H	TYPE A	Trans & PB	$ 1,500	$ 4,750	$ 6,250	52.38
TR2-14-3	TR2-14	The T Route 2	East Lancaster	Weiler	-3	H	TYPE C	PB Reloc	$ 1,500	$ 4,000	$ 5,500	52.38
TR2-14-4A	TR2-14	The T Route 2	East Lancaster	Weiler	-4A	H	TYPE B	Trans & PB	$ 1,500	$ 4,750	$ 6,250	52.38
TR2-14-4B	TR2-14	The T Route 2	East Lancaster	Weiler	-4B	H	TYPE B	Trans	$ 1,500	$ 750	$ 2,250	52.38
TR1-15-4	TR1-15	The T Route 1	Hemphill	Murphy	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	51.88
TR1-19-1	TR1-19	The T Route 1	Hemphill	Allen	-1	H	TYPE G	None	$ 1,750	$ -	$ 1,750	51.63
TR1-19-2	TR1-19	The T Route 1	Hemphill	Allen	-2	H	TYPE D	None	$ 1,500	$ -	$ 1,500	51.63
TR1-19-3	TR1-19	The T Route 1	Hemphill	Allen	-3	H	TYPE D	PB Reloc	$ 1,500	$ 4,000	$ 5,500	51.63
TR1-19-4	TR1-19	The T Route 1	Hemphill	Allen	-4	H	TYPE E	PB Reloc	$ 1,750	$ 4,000	$ 5,750	51.63
TR2-13-3	TR2-13	The T Route 2	East Lancaster	Weiler	-3	H	TYPE A	None	$ 1,500	$ -	$ 1,500	51.63
TR1A-12-1B	TR1A-12	The T Route 1a	25th	Chestnut	-1B	H	TYPE B	None	$ 1,500	$ -	$ 1,500	50.38
TR1A-12-3B	TR1A-12	The T Route 1a	25th	Chestnut	-3B	H	TYPE B	None	$ 1,500	$ -	$ 1,500	50.38
TR1-18-1	TR1-18	The T Route 1	Hemphill	Maddox	-1	H	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	50.13
TR1-18-2	TR1-18	The T Route 1	Hemphill	Maddox	-2	H	TYPE B	Trans	$ 1,500	$ 750	$ 2,250	50.13
TR1-18-3	TR1-18	The T Route 1	Hemphill	Maddox	-3	H	TYPE G	None	$ 1,750	$ -	$ 1,750	50.13
TR1-18-4	TR1-18	The T Route 1	Hemphill	Maddox	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	50.13
TR1A-16-1	TR1A-16	The T Route 1a	25th	Roosevelt	-1	H	TYPE D	PB Reloc	$ 1,500	$ 4,000	$ 5,500	49.13
TR1A-16-3	TR1A-16	The T Route 1a	25th	Roosevelt	-3	H	TYPE G	None	$ 1,750	$ -	$ 1,750	49.13
TR1A-16-4	TR1A-16	The T Route 1a	25th	Roosevelt	-4	H	TYPE H	PB Reloc	$ 2,000	$ 4,000	$ 6,000	49.13
TR1A-22-1A	TR1A-22	The T Route 1a	Azle	Ephriham	-1A	H	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	48.88
TR1A-22-3A	TR1A-22	The T Route 1a	Azle	Ephriham	-3A	H	TYPE H	None	$ 2,000	$ -	$ 2,000	48.88
TR1A-22-3B	TR1A-22	The T Route 1a	Azle	Ephriham	-3B	H	None	Trans	$ -	$ 750	$ 750	48.88
TR1A-22-4	TR1A-22	The T Route 1a	Azle	Ephriham	-4	H	TYPE H	Trans & PB	$ 2,000	$ 4,750	$ 6,750	48.88
TR1-1-3	TR1-1	The T Route 1	Hemphill	Vickery	-3	H	TYPE E	None	$ 1,750	$ -	$ 1,750	48.38
TR1-1-4	TR1-1	The T Route 1	Hemphill	Vickery	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	48.38
TR1-29-1	TR1-29	The T Route 1	Hemphill	Jessamine	-1	H	TYPE C	None	$ 1,500	$ -	$ 1,500	48.38
TR1-29-2	TR1-29	The T Route 1	Hemphill	Jessamine	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	48.38
TR1A-13-2	TR1A-13	The T Route 1a	25th	Columbus	-2	H	TYPE G	None	$ 1,750	$ -	$ 1,750	48.13
TR1A-13-3	TR1A-13	The T Route 1a	25th	Columbus	-3	H	TYPE B	None	$ 1,500	$ -	$ 1,500	48.13
TR1A-13-4	TR1A-13	The T Route 1a	25th	Columbus	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	48.13
TR1A-15-1	TR1A-15	The T Route 1a	25th	Prairie	-1	H	TYPE D	None	$ 1,500	$ -	$ 1,500	48.13
TR1A-15-2	TR1A-15	The T Route 1a	25th	Prairie	-2	H	TYPE D	None	$ 1,500	$ -	$ 1,500	48.13
MD-2-1	MD-2	Medical District	Pennsylvania	South Lake	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	47.88
MD-2-2	MD-2	Medical District	Pennsylvania	South Lake	-2	H	TYPE F	Trans	$ 1,500	$ 750	$ 2,250	47.88
MD-2-4	MD-2	Medical District	Pennsylvania	South Lake	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	47.88
TR1-36-1	TR1-36	The T Route 1	Hemphill	Bowie	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	47.88
TR1-36-2	TR1-36	The T Route 1	Hemphill	Bowie	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	47.88
TR1-36-3	TR1-36	The T Route 1	Hemphill	Bowie	-3	H	TYPE H	None	$ 2,000	$ -	$ 2,000	47.88
TR1A-14-1	TR1A-14	The T Route 1a	25th	Loving	-1	H	TYPE D	None	$ 1,500	$ -	$ 1,500	47.88
TR1A-14-2	TR1A-14	The T Route 1a	25th	Loving	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	47.88
TR1A-14-3	TR1A-14	The T Route 1a	25th	Loving	-3	H	TYPE H	None	$ 2,000	$ -	$ 2,000	47.88
TR1-14-1	TR1-14	The T Route 1	Hemphill	Magnolia	-1	H	TYPE F	Trans	$ 1,500	$ 750	$ 2,250	47.38
TR1-14-2	TR1-14	The T Route 1	Hemphill	Magnolia	-2	H	TYPE D	None	$ 1,500	$ -	$ 1,500	47.38
TR1-14-3	TR1-14	The T Route 1	Hemphill	Magnolia	-3	H	TYPE D	Trans	$ 1,750	$ 750	$ 2,500	47.38
TR1-14-4	TR1-14	The T Route 1	Hemphill	Magnolia	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	47.38
TR1A-24-4A	TR1A-24	The T Route 1a	Azle	Menefee	-4A	H	TYPE B	None	$ 1,500	$ -	$ 1,500	46.88
TR1A-25-3A	TR1A-25	The T Route 1a	Azle	Long	-3A	H	TYPE B	PB Reloc	$ 1,500	$ 4,000	$ 5,500	46.88
TR2-8-1	TR2-8	The T Route 2	East Lancaster	Tierney	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	46.88
TR2-8-2A	TR2-8	The T Route 2	East Lancaster	Tierney	-2A	H	TYPE B	None	$ 1,500	$ -	$ 1,500	46.88
TR2-8-3	TR2-8	The T Route 2	East Lancaster	Tierney	-3	H	TYPE D	None	$ 1,500	$ -	$ 1,500	46.88
TR2-8-4	TR2-8	The T Route 2	East Lancaster	Tierney	-4	H	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	46.88
TR1A-17-3	TR1A-17	The T Route 1a	Azle	McKinley	-3	H	TYPE C	None	$ 1,500	$ -	$ 1,500	46.63
TR2-1-1A	TR2-1	The T Route 2	East Lancaster	Oakland	-1A	H	None	Trans	$ -	$ 750	$ 750	46.63
TR2-1-1B	TR2-1	The T Route 2	East Lancaster	Oakland	-1B	H	TYPE B	None	$ 1,500	$ -	$ 1,500	46.63
TR2-1-4A	TR2-1	The T Route 2	East Lancaster	Oakland	-4A	H	TYPE B	None	$ 1,500	$ -	$ 1,500	46.63
TR2-6-4B	TR2-6	The T Route 2	East Lancaster	Watson	-4B	H	TYPE A	Trans	$ 1,500	$ 750	$ 2,250	46.63

TR1-16-1	TR1-16	The T Route 1	Hemphill	Feliks Gwozdz	-1	H	TYPE E	Trans	$ 1,750	$ 750	$ 2,500	46.38
TR1-16-2	TR1-16	The T Route 1	Hemphill	Feliks Gwozdz	-2	H	TYPE E	None	$ 1,750	$ -	$ 1,750	46.38
TR1-16-3	TR1-16	The T Route 1	Hemphill	Feliks Gwozdz	-3	H	TYPE H	None	$ 2,000	$ -	$ 2,000	46.38
TR1-16-4	TR1-16	The T Route 1	Hemphill	Feliks Gwozdz	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	46.38
TR1-28-3	TR1-28	The T Route 1	Hemphill	Carlock	-3	H	TYPE E	None	$ 1,750	$ -	$ 1,750	46.38
TR1-30-2	TR1-30	The T Route 1	Hemphill	Page	-2	H	TYPE A	None	$ 1,500	$ -	$ 1,500	46.38
TR1-30-3	TR1-30	The T Route 1	Hemphill	Page	-3	H	TYPE A	None	$ 1,500	$ -	$ 1,500	46.38
TR1-30-4	TR1-30	The T Route 1	Hemphill	Page	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	46.38
TR1A-11-2	TR1A-11	The T Route 1a	25th	Pearl	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	45.63
TR1A-11-3	TR1A-11	The T Route 1a	25th	Pearl	-3	H	TYPE H	None	$ 2,000	$ -	$ 2,000	45.63
TR1A-11-4	TR1A-11	The T Route 1a	25th	Pearl	-4	H	TYPE D	None	$ 1,500	$ -	$ 1,500	45.63
TR2-12-2	TR2-12	The T Route 2	East Lancaster	Grandview	-2	H	TYPE C	Trans	$ 1,500	$ 750	$ 2,250	45.63
TR1-33-1	TR1-33	The T Route 1	Hemphill	Capps	-1	H	TYPE E	None	$ 1,750	$ -	$ 1,750	44.38
TR1-34-1	TR1-34	The T Route 1	Hemphill	Canty	-1	H	TYPE E	None	$ 1,750	$ -	$ 1,750	44.38
TR1-34-2	TR1-34	The T Route 1	Hemphill	Canty	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	44.38
TR1-34-3	TR1-34	The T Route 1	Hemphill	Canty	-3	H	TYPE H	None	$ 2,000	$ -	$ 2,000	44.38
TR1-34-4	TR1-34	The T Route 1	Hemphill	Canty	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	44.38
TR1-35-2	TR1-35	The T Route 1	Hemphill	Lowden	-2	H	TYPE H	PB Reloc	$ 2,000	$ 4,000	$ 6,000	44.38
TR1-35-3	TR1-35	The T Route 1	Hemphill	Lowden	-3	H	TYPE E	PB Reloc	$ 1,750	$ 4,000	$ 5,750	44.38
TR1-35-4	TR1-35	The T Route 1	Hemphill	Lowden	-4	H	TYPE D	PB Reloc	$ 1,500	$ 4,000	$ 5,500	44.38
TR1A-9-4	TR1A-9	The T Route 1a	25th	Gould	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	44.38
TR1A-18-2	TR1A-18	The T Route 1a	Azle	Rosen	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	44.38
TR1A-18-4A	TR1A-18	The T Route 1a	Azle	NW 26th	-4A	H	TYPE B	None	$ 1,500	$ -	$ 1,500	44.38
TR1A-19-1	TR1A-19	The T Route 1a	Azle	Rosen	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	44.38
TR2-11-2A	TR2-11	The T Route 2	East Lancaster	Emily	-2A	H	TYPE F	None	$ 1,500	$ -	$ 1,500	44.38
TR2-11-2B	TR2-11	The T Route 2	East Lancaster	Emily	-2B	H	TYPE D	None	$ 1,500	$ -	$ 1,500	44.38
TR1-2-1	TR1-2	The T Route 1	Hemphill	Jarvis	-1	H	TYPE E	Trans	$ 1,750	$ 750	$ 2,500	43.88
TR1-2-2	TR1-2	The T Route 1	Hemphill	Jarvis	-2	H	TYPE A	None	$ 1,500	$ -	$ 1,500	43.88
TR1-2-3	TR1-2	The T Route 1	Hemphill	Jarvis	-3	H	TYPE F	None	$ 1,500	$ -	$ 1,500	43.88
TR1-2-4	TR1-2	The T Route 1	Hemphill	Jarvis	-4	H	TYPE D	None	$ 1,500	$ -	$ 1,500	43.88
MD-1-3	MD-1	Medical District	Pennsylvania	6th Ave	-3	H	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	43.63
MD-1-4	MD-1	Medical District	Pennsylvania	6th Ave	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	43.63
MD-3-4	MD-3	Medical District	Pennsylvania	5th Ave	-4	H	TYPE E	Trans	$ 1,750	$ 750	$ 2,500	43.63
TR1-21-1B	TR1-21	The T Route 1	Hemphill	Jefferson	-1B	H	TYPE B	None	$ 1,500	$ -	$ 1,500	43.38
TR1-25-4	TR1-25	The T Route 1	Hemphill	Hawthorne	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	42.38
TR1-26-1	TR1-26	The T Route 1	Hemphill	Lilac	-1	H	TYPE E	None	$ 1,750	$ -	$ 1,750	42.38
TR1-26-4	TR1-26	The T Route 1	Hemphill	Lilac	-4	H	TYPE G	None	$ 1,750	$ -	$ 1,750	42.38
TR1-23-1	TR1-23	The T Route 1	Hemphill	Baltimore	-1	H	TYPE E	None	$ 1,750	$ -	$ 1,750	42.13
TR1-23-4	TR1-23	The T Route 1	Hemphill	Baltimore	-4	H	TYPE G	None	$ 1,750	$ -	$ 1,750	42.13
TR1A-1-1	TR1A-1	The T Route 1a	25th	Ellis	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	42.13
TR1A-1-3	TR1A-1	The T Route 1a	25th	Ellis	-3	H	TYPE B	None	$ 1,500	$ -	$ 1,500	42.13
TR1A-1-4	TR1A-1	The T Route 1a	25th	Ellis	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	42.13
TR2-7-3	TR2-7	The T Route 2	East Lancaster	Catherine	-3	H	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	42.13
TR2-7-4	TR2-7	The T Route 2	East Lancaster	Catherine	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	42.13
TR1-4-1	TR1-4	The T Route 1	Hemphill	Broadway	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	41.88
TR1-4-2	TR1-4	The T Route 1	Hemphill	Broadway	-2	H	TYPE E	None	$ 1,750	$ -	$ 1,750	41.88
TR1-4-3	TR1-4	The T Route 1	Hemphill	Broadway	-3	H	TYPE E	None	$ 1,750	$ -	$ 1,750	41.88
TR1-4-4	TR1-4	The T Route 1	Hemphill	Broadway	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	41.88
TR2-2-1A	TR2-2	The T Route 2	East Lancaster	Rand	-1A	H	TYPE H	Trans	$ 2,000	$ 750	$ 2,750	41.88
TR2-2-2	TR2-2	The T Route 2	East Lancaster	Rand	-2	H	TYPE H	Trans	$ 2,000	$ 750	$ 2,750	41.88
TR2-2-3A	TR2-2	The T Route 2	East Lancaster	Rand	-3A	H	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	41.88
TR2-2-3B	TR2-2	The T Route 2	East Lancaster	Rand	-3B	H	TYPE D	None	$ 1,500	$ -	$ 1,500	41.88
TR2-2-4A	TR2-2	The T Route 2	East Lancaster	Rand	-4A	H	TYPE D	None	$ 1,500	$ -	$ 1,500	41.88
TR2-2-4B	TR2-2	The T Route 2	East Lancaster	Rand	-4B	H	TYPE D	None	$ 1,500	$ -	$ 1,500	41.88
TR1-22-2	TR1-22	The T Route 1	Hemphill	Richmond	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	41.13
TR1-22-3	TR1-22	The T Route 1	Hemphill	Richmond	-3	H	TYPE H	None	$ 2,000	$ -	$ 2,000	41.13
TR1-22-4	TR1-22	The T Route 1	Hemphill	Richmond	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	41.13
TR2-9-1A	TR2-9	The T Route 2	East Lancaster	Greenlee	-1A	H	TYPE B	Trans	$ 1,500	$ 750	$ 2,250	41.13
TR2-9-2A	TR2-9	The T Route 2	East Lancaster	Greenlee	-2A	H	TYPE B	Trans	$ 1,500	$ 750	$ 2,250	41.13
TR1-7-1	TR1-7	The T Route 1	Hemphill	Pennsylvania	-1	H	TYPE H	PB Reloc	$ 2,000	$ 4,000	$ 6,000	40.63
TR1-7-2	TR1-7	The T Route 1	Hemphill	Pennsylvania	-2	H	TYPE E	PB Reloc	$ 1,750	$ 4,000	$ 5,750	40.63
TR1-7-3	TR1-7	The T Route 1	Hemphill	Pennsylvania	-3	H	TYPE E	PB Reloc	$ 1,750	$ 4,000	$ 5,750	40.63
TR1-7-4	TR1-7	The T Route 1	Hemphill	Pennsylvania	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	40.63
TR2-20-2B	TR2-20	The T Route 2	East Lancaster	Mel	-2B	H	TYPE B	None	$ 1,500	$ -	$ 1,500	40.63
TR2-20-3	TR2-20	The T Route 2	East Lancaster	Mel	-3	H	TYPE C	Trans	$ 1,500	$ 750	$ 2,250	40.63
TR2-20-4	TR2-20	The T Route 2	East Lancaster	Mel	-4	H	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	40.63
TR1-31-2	TR1-31	The T Route 1	Hemphill	Mulkey	-2	H	TYPE E	None	$ 1,750	$ -	$ 1,750	39.88
TR1-31-3	TR1-31	The T Route 1	Hemphill	Mulkey	-3	H	TYPE G	None	$ 1,750	$ -	$ 1,750	39.88
TR1A-8-3A	TR1A-8	The T Route 1a	25th	Lincoln	-3A	H	TYPE B	None	$ 1,500	$ -	$ 1,500	39.88
TR1A-8-4A	TR1A-8	The T Route 1a	25th	Lincoln	-4A	H	TYPE B	None	$ 1,500	$ -	$ 1,500	39.88

TR1A-20-4	TR1A-20	The T Route 1a	Azle	Dodge	-4	H	TYPE B	None	$ 1,500	$ -	$ 1,500	39.88
TR2-3-3	TR2-3	The T Route 2	East Lancaster	Hughes	-3	H	None	Trans	$ -	$ 750	$ 750	39.88
TR1-3-1	TR1-3	The T Route 1	Hemphill	Daggett	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	39.38
TR1-3-4	TR1-3	The T Route 1	Hemphill	Daggett	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	39.38
TR1-10-2	TR1-10	The T Route 1	Hemphill	Terrell	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	39.38
TR1-10-3	TR1-10	The T Route 1	Hemphill	Terrell	-3	H	TYPE E	None	$ 1,750	$ -	$ 1,750	39.38
TR1-10-4	TR1-10	The T Route 1	Hemphill	Terrell	-4	H	TYPE G	None	$ 1,750	$ -	$ 1,750	39.38
MD-4-2A	MD-4	Medical District	Pennsylvania	Henderson	-2A	H	TYPE F	Trans	$ 1,500	$ 750	$ 2,250	39.38
MD-4-2B	MD-4	Medical District	Pennsylvania	Henderson	-2B	H	TYPE F	Trans	$ 1,500	$ 750	$ 2,250	39.38
MD-4-3A	MD-4	Medical District	Pennsylvania	Henderson	-3A	H	TYPE G	None	$ 1,750	$ -	$ 1,750	39.38
MD-4-4A	MD-4	Medical District	Pennsylvania	Henderson	-4A	H	None	Trans	$ -	$ 750	$ 750	39.38
MD-4-4B	MD-4	Medical District	Pennsylvania	Henderson	-4B	H	TYPE E	Trans	$ 1,750	$ 750	$ 2,500	39.38
TR1A-2-1	TR1A-2	The T Route 1a	25th	Houston	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	38.88
TR1A-23-1B	TR1A-23	The T Route 1a	Azle	Grayson	-1B	H	TYPE B	None	$ 1,500	$ -	$ 1,500	38.88
TR1A-23-4	TR1A-23	The T Route 1a	Azle	Grayson	-4	H	TYPE B	Trans	$ 1,500	$ 750	$ 2,250	38.88
TR1A-3-1A	TR1A-3	The T Route 1a	25th	Clinton	-1A	H	TYPE A	None	$ 1,500	$ -	$ 1,500	37.63
TR1A-3-1B	TR1A-3	The T Route 1a	25th	Clinton	-1B	H	TYPE A	None	$ 1,500	$ -	$ 1,500	37.63
TR1A-3-2	TR1A-3	The T Route 1a	25th	Clinton	-2	H	TYPE D	None	$ 1,500	$ -	$ 1,500	37.63
TR1A-3-3	TR1A-3	The T Route 1a	25th	Clinton	-3	H	TYPE H	None	$ 2,000	$ -	$ 2,000	37.63
TR1A-3-4A	TR1A-3	The T Route 1a	25th	Clinton	-4A	H	TYPE A	None	$ 1,500	$ -	$ 1,500	37.63
TR1-6-1	TR1-6	The T Route 1	Hemphill	Tucker	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	37.13
TR1-6-4	TR1-6	The T Route 1	Hemphill	Tucker	-4	H	TYPE D	None	$ 1,500	$ -	$ 1,500	37.13
TR1-9-1	TR1-9	The T Route 1	Hemphill	Leuda	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	36.63
TR1-9-2	TR1-9	The T Route 1	Hemphill	Leuda	-2	H	TYPE H	None	$ 2,000	$ -	$ 2,000	36.63
TR1-9-3	TR1-9	The T Route 1	Hemphill	Leuda	-3	H	TYPE H	None	$ 2,000	$ -	$ 2,000	36.63
TR1-10-1	TR1-10	The T Route 1	Hemphill	Terrell	-1	H	TYPE E	None	$ 1,750	$ -	$ 1,750	36.63
TR1-5-1	TR1-5	The T Route 1	Hemphill	Peter Smith	-1	H	TYPE D	None	$ 1,500	$ -	$ 1,500	36.13
TR1-5-2	TR1-5	The T Route 1	Hemphill	Peter Smith	-2	H	TYPE E	None	$ 1,750	$ -	$ 1,750	36.13
TR1-5-3	TR1-5	The T Route 1	Hemphill	Peter Smith	-3	H	TYPE D	None	$ 1,500	$ -	$ 1,500	36.13
TR1-5-4	TR1-5	The T Route 1	Hemphill	Peter Smith	-4	H	TYPE H	None	$ 2,000	$ -	$ 2,000	36.13
CR-1-2	CR-1	Citizen Request	Westcreek	Altamesa	-2	H	TYPE H	PB Reloc	$ 2,000	$ 4,000	$ 6,000	35.88
CR-1-3	CR-1	Citizen Request	Westcreek	Altamesa	-3	H	TYPE C	None	$ 1,500	$ -	$ 1,500	35.88
CR-1-4	CR-1	Citizen Request	Westcreek	Altamesa	-4	H	TYPE C	None	$ 1,500	$ -	$ 1,500	35.88
TR1-8-1	TR1-8	The T Route 1	Hemphill	Cannon	-1	H	TYPE H	None	$ 2,000	$ -	$ 2,000	34.88
TR1-8-3	TR1-8	The T Route 1	Hemphill	Cannon	-3	H	TYPE H	None	$ 2,000	$ -	$ 2,000	34.88
TR1-8-4	TR1-8	The T Route 1	Hemphill	Cannon	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	34.88
TR2-18-1	TR2-18	The T Route 2	East Lancaster	Canton	-1	H	TYPE B	Trans & PB	$ 1,500	$ 4,750	$ 6,250	34.88
TR2-18-2	TR2-18	The T Route 2	East Lancaster	Canton	-2	H	TYPE D	Trans & PB	$ 1,500	$ 4,750	$ 6,250	34.88
TR2-18-3	TR2-18	The T Route 2	East Lancaster	Canton	-3	H	TYPE D	Trans & PB	$ 1,500	$ 4,750	$ 6,250	34.88
TR2-18-4	TR2-18	The T Route 2	East Lancaster	Canton	-4	H	TYPE D	Trans & PB	$ 1,500	$ 4,750	$ 6,250	34.88
MD-5-3	MD-5	Medical District	Henderson	Cannon	-3	H	TYPE F	Trans	$ 1,500	$ 750	$ 2,250	34.88
CR-4-1B	CR-4	Citizen Request	Western Center	Silver Sage	-1B	H	TYPE H	PB Reloc	$ 2,000	$ 4,000	$ 6,000	33.63
MD-12-1	MD-12	Medical District	Pruitt	6th Ave	-1	H	TYPE E	Trans	$ 1,750	$ 750	$ 2,500	32.88
MD-12-3B	MD-12	Medical District	Pruitt	6th Ave	-3B	H	TYPE G	None	$ 1,750	$ -	$ 1,750	32.88
MD-13-2	MD-13	Medical District	Pruitt	6th Ave	-2	H	TYPE E	None	$ 1,750	$ -	$ 1,750	32.88
MD-13-3	MD-13	Medical District	Pruitt	6th Ave	-3	H	TYPE E	None	$ 1,750	$ -	$ 1,750	32.88
CR-9-1B	CR-9	Citizen Request	Granbury	Hulen	-1B	H	None	PB Reloc	$ -	$ 4,000	$ 4,000	31.13
CR-92A	CR-9	Citizen Request	Granbury	Hulen	2A	H	TYPE B	PB Reloc	$ 1,500	$ 4,000	$ 5,500	31.13
CR-93B	CR-9	Citizen Request	Granbury	Hulen	3B	H	TYPE B	None	$ 1,500	$ -	$ 1,500	31.13
CR-2-3A	CR-2	Citizen Request	McCart	Altamesa	-3A	H	TYPE D	PB Reloc	$ 1,500	$ 4,000	$ 5,500	30.88
MD-6-4	MD-6	Medical District	Henderson	Cooper	-4	H	TYPE D	None	$ 1,500	$ -	$ 1,500	30.38
MD-7-1	MD-7	Medical District	Henderson	Terrell	-1	H	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	30.38
MD-7-4	MD-7	Medical District	Henderson	Terrell	-4	H	TYPE H	Trans	$ 2,000	$ 750	$ 2,750	30.38
MD-16-3	MD-16	Medical District	Cannon	5th Ave	-3	H	TYPE E	None	$ 1,750	$ -	$ 1,750	28.63
MD-16-4	MD-16	Medical District	Cannon	5th Ave	-4	H	TYPE F	Trans	$ 1,500	$ 750	$ 2,250	28.63
MD-9-3	MD-9	Medical District	Terrell	South Lake	-3	H	TYPE E	Trans	$ 1,750	$ 750	$ 2,500	28.13
MD-9-4	MD-9	Medical District	Terrell	South Lake	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	28.13
MD-10-2	MD-10	Medical District	Terrell	6th Ave	-2	H	TYPE D	None	$ 1,500	$ -	$ 1,500	28.13
MD-10-3	MD-10	Medical District	Terrell	6th Ave	-3	H	TYPE E	None	$ 1,750	$ -	$ 1,750	28.13
MD-10-4	MD-10	Medical District	Terrell	6th Ave	-4	H	TYPE E	None	$ 1,750	$ -	$ 1,750	28.13
MD-8-3	MD-8	Medical District	Terrell	5th Ave	-3	H	TYPE E	Trans	$ 1,750	$ 750	$ 2,500	26.38
MD-11-2	MD-11	Medical District	Cooper	6th Ave	-2	H	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	26.38
MD-11-3	MD-11	Medical District	Cooper	6th Ave	-3	H	TYPE F	None	$ 1,500	$ -	$ 1,500	26.38
CR-5-1A	CR-5	Citizen Request	Beach	Western Center	-1A	H	TYPE C	None	$ 1,500	$ -	$ 1,500	24.13
CR-5-1B	CR-5	Citizen Request	Beach	Western Center	-1B	H	TYPE K	None	$ 2,000	$ -	$ 2,000	24.13
CR-5-4A	CR-5	Citizen Request	Beach	Western Center	-4A	H	TYPE C	None	$ 1,500	$ -	$ 1,500	24.13
CR-5-4B	CR-5	Citizen Request	Beach	Western Center	-4B	H	TYPE K	None	$ 2,000	$ -	$ 2,000	24.13

Appendix F – Medium Priority Project List

Medium Priority Curb Ramp Improvements												
RampID	Int_ID	Study Area	Street1	Street2	Corner	Priority	Improve_Type	Improve_Other	Improve_Cost	Other_Cost	Total_Cost	PAS
TR2-16-2B	TR2-16	The T Route 2	East Lancaster	Craig	-2B	M	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	52.88
CR-3-2B	CR-3	Citizen Request	University	TCU	-2B	M	None	Trans & PB	$ -	$ 4,750	$ 4,750	51.88
CR-3-4B	CR-3	Citizen Request	University	TCU	-4B	M	None	None	$ -	$ -	$ -	51.88
TR1-15-1	TR1-15	The T Route 1	Hemphill	Murphy	-1	M	TYPE G	None	$ 1,750	$ -	$ 1,750	51.88
TR2-13-1	TR2-13	The T Route 2	East Lancaster	Weiler	-1	M	TYPE D	None	$ 1,500	$ -	$ 1,500	51.63
TR2-13-2A	TR2-13	The T Route 2	East Lancaster	Weiler	-2A	M	TYPE B	None	$ 1,500	$ -	$ 1,500	51.63
TR1A-12-2A	TR1A-12	The T Route 1a	25th	Chestnut	-2A	M	TYPE B	None	$ 1,500	$ -	$ 1,500	50.38
TR1A-12-3A	TR1A-12	The T Route 1a	25th	Chestnut	-3A	M	TYPE B	None	$ 1,500	$ -	$ 1,500	50.38
TR1A-12-4	TR1A-12	The T Route 1a	25th	Chestnut	-4	M	TYPE H	None	$ 2,000	$ -	$ 2,000	50.38
TR1A-16-2	TR1A-16	The T Route 1a	25th	Roosevelt	-2	M	TYPE E	Trans & PB	$ 1,750	$ 4,750	$ 6,500	49.13
TR1A-22-1B	TR1A-22	The T Route 1a	Azle	Ephriham	-1B	M	TYPE D	None	$ 1,500	$ -	$ 1,500	48.88
TR1A-22-2	TR1A-22	The T Route 1a	Azle	Ephriham	-2	M	TYPE H	Trans & PB	$ 2,000	$ 4,750	$ 6,750	48.88
TR2-5-1A	TR2-5	The T Route 2	East Lancaster	Roseland	-1A	M	TYPE H	None	$ 2,000	$ -	$ 2,000	48.88
TR2-5-2	TR2-5	The T Route 2	East Lancaster	Roseland	-2	M	TYPE D	None	$ 1,500	$ -	$ 1,500	48.88
TR1-29-3	TR1-29	The T Route 1	Hemphill	Jessamine	-3	M	TYPE H	None	$ 2,000	$ -	$ 2,000	48.38
TR1-29-4	TR1-29	The T Route 1	Hemphill	Jessamine	-4	M	TYPE G	None	$ 1,750	$ -	$ 1,750	48.38
TR1A-13-1	TR1A-13	The T Route 1a	25th	Columbus	-1	M	TYPE D	None	$ 1,500	$ -	$ 1,500	48.13
TR1A-15-3	TR1A-15	The T Route 1a	25th	Prairie	-3	M	TYPE D	None	$ 1,500	$ -	$ 1,500	48.13
TR1A-15-4	TR1A-15	The T Route 1a	25th	Prairie	-4	M	TYPE D	None	$ 1,500	$ -	$ 1,500	48.13
MD-2-3	MD-2	Medical District	Pennsylvania	South Lake	-3	M	TYPE E	None	$ 1,750	$ -	$ 1,750	47.88
TR1A-14-4	TR1A-14	The T Route 1a	25th	Loving	-4	M	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	47.88
TR1A-24-1B	TR1A-24	The T Route 1a	Azle	Menefee	-1B	M	TYPE B	None	$ 1,500	$ -	$ 1,500	46.88
TR1A-25-1B	TR1A-25	The T Route 1a	Azle	Long	-1B	M	TYPE B	PB Reloc	$ 1,500	$ 4,000	$ 5,500	46.88
TR1A-25-4	TR1A-25	The T Route 1a	Azle	Long	-4	M	TYPE E	None	$ 1,750	$ -	$ 1,750	46.88
TR2-8-2B	TR2-8	The T Route 2	East Lancaster	Tierney	-2B	M	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	46.88
TR1A-17-1	TR1A-17	The T Route 1a	Azle	McKinley	-1	M	TYPE H	None	$ 2,000	$ -	$ 2,000	46.63
TR1A-17-4	TR1A-17	The T Route 1a	Azle	McKinley	-4	M	TYPE H	None	$ 2,000	$ -	$ 2,000	46.63
TR2-1-2A	TR2-1	The T Route 2	East Lancaster	Oakland	-2A	M	None	Trans	$ -	$ 750	$ 750	46.63
TR2-1-3B	TR2-1	The T Route 2	East Lancaster	Oakland	-3B	M	None	Trans & Flare	$ -	$ 1,500	$ 1,500	46.63
TR2-1-4B	TR2-1	The T Route 2	East Lancaster	Oakland	-4B	M	None	Trans & Flare	$ -	$ 1,500	$ 1,500	46.63
TR2-6-3B	TR2-6	The T Route 2	East Lancaster	Watson	-3B	M	TYPE A	Trans	$ 1,500	$ 750	$ 2,250	46.63
TR1-28-2	TR1-28	The T Route 1	Hemphill	Carlock	-2	M	TYPE H	None	$ 2,000	$ -	$ 2,000	46.38
TR1-30-1	TR1-30	The T Route 1	Hemphill	Page	-1	M	TYPE E	None	$ 1,750	$ -	$ 1,750	46.38
TR1A-11-1	TR1A-11	The T Route 1a	25th	Pearl	-1	M	TYPE H	None	$ 2,000	$ -	$ 2,000	45.63
TR2-12-1	TR2-12	The T Route 2	East Lancaster	Grandview	-1	M	TYPE C	None	$ 1,500	$ -	$ 1,500	45.63
TR1-33-2	TR1-33	The T Route 1	Hemphill	Capps	-2	M	TYPE B	None	$ 1,500	$ -	$ 1,500	44.38
TR1-33-3	TR1-33	The T Route 1	Hemphill	Capps	-3	M	TYPE B	None	$ 1,500	$ -	$ 1,500	44.38
TR1-33-4	TR1-33	The T Route 1	Hemphill	Capps	-4	M	TYPE H	None	$ 2,000	$ -	$ 2,000	44.38
TR1-35-1	TR1-35	The T Route 1	Hemphill	Lowden	-1	M	TYPE H	PB Reloc	$ 2,000	$ 4,000	$ 6,000	44.38
TR1A-6-1	TR1A-6	The T Route 1a	25th	Prospect	-1	M	TYPE B	None	$ 1,500	$ -	$ 1,500	44.38
TR1A-6-2	TR1A-6	The T Route 1a	25th	Prospect	-2	M	TYPE B	None	$ 1,500	$ -	$ 1,500	44.38
TR1A-6-3	TR1A-6	The T Route 1a	25th	Prospect	-3	M	TYPE H	None	$ 2,000	$ -	$ 2,000	44.38
TR1A-6-4	TR1A-6	The T Route 1a	25th	Prospect	-4	M	TYPE B	None	$ 1,500	$ -	$ 1,500	44.38
TR1A-9-1	TR1A-9	The T Route 1a	25th	Gould	-1	M	TYPE D	None	$ 1,500	$ -	$ 1,500	44.38
TR1A-9-3	TR1A-9	The T Route 1a	25th	Gould	-3	M	TYPE D	None	$ 1,500	$ -	$ 1,500	44.38
TR1A-19-4	TR1A-19	The T Route 1a	Azle	Rosen	-4	M	TYPE H	None	$ 2,000	$ -	$ 2,000	44.38
TR2-11-1	TR2-11	The T Route 2	East Lancaster	Emily	-1	M	TYPE D	None	$ 1,500	$ -	$ 1,500	44.38
MD-3-3	MD-3	Medical District	Pennsylvania	5th Ave	-3	M	TYPE E	None	$ 1,750	$ -	$ 1,750	43.63
TR1-21-4	TR1-21	The T Route 1	Hemphill	Jefferson	-4	M	TYPE H	None	$ 2,000	$ -	$ 2,000	43.38
TR1-25-3	TR1-25	The T Route 1	Hemphill	Hawthorne	-3	M	TYPE F	None	$ 1,500	$ -	$ 1,500	42.38
TR1A-1-2	TR1A-1	The T Route 1a	25th	Ellis	-2	M	TYPE H	None	$ 2,000	$ -	$ 2,000	42.13
TR1A-10-1	TR1A-10	The T Route 1a	25th	Market	-1	M	TYPE H	None	$ 2,000	$ -	$ 2,000	42.13
TR1A-10-2	TR1A-10	The T Route 1a	25th	Market	-2	M	TYPE B	None	$ 1,500	$ -	$ 1,500	42.13
TR1A-10-3	TR1A-10	The T Route 1a	25th	Market	-3	M	TYPE B	None	$ 1,500	$ -	$ 1,500	42.13
TR1A-10-4	TR1A-10	The T Route 1a	25th	Market	-4	M	TYPE H	None	$ 2,000	$ -	$ 2,000	42.13
TR1-22-1	TR1-22	The T Route 1	Hemphill	Richmond	-1	M	TYPE H	None	$ 2,000	$ -	$ 2,000	41.13
TR1-3-2	TR1-3	The T Route 1	Hemphill	Daggett	-2	M	TYPE E	None	$ 1,750	$ -	$ 1,750	39.38
TR1-3-3	TR1-3	The T Route 1	Hemphill	Daggett	-3	M	TYPE H	None	$ 2,000	$ -	$ 2,000	39.38
CR-6-1A	CR-6	Citizen Request	E. Berry	Sirron	-1A	M	TYPE B	Trans	$ 1,500	$ 750	$ 2,250	38.13
CR-6-2A	CR-6	Citizen Request	E. Berry	Sirron	-2A	M	TYPE B	Trans	$ 1,500	$ 750	$ 2,250	38.13
CR-6-3B	CR-6	Citizen Request	E. Berry	Sirron	-3B	M	TYPE B	None	$ 1,500	$ -	$ 1,500	38.13
TR1-9-4	TR1-9	The T Route 1	Hemphill	Leuda	-4	M	TYPE H	None	$ 2,000	$ -	$ 2,000	36.63
CR-1-1	CR-1	Citizen Request	Westcreek	Altamesa	-1	M	TYPE H	PB Reloc	$ 2,000	$ 4,000	$ 6,000	35.88
TR1-8-2	TR1-8	The T Route 1	Hemphill	Cannon	-2	M	TYPE H	None	$ 2,000	$ -	$ 2,000	34.88
CR-94A	CR-9	Citizen Request	Granbury	Hulen	4A	M	TYPE F	Trans	$ 1,500	$ 750	$ 2,250	31.13
CR-2-1B	CR-2	Citizen Request	McCart	Altamesa	-1B	M	TYPE B	PB Reloc	$ 1,500	$ 4,000	$ 5,500	30.88

CR-2-2	CR-2	Citizen Request	McCart	Altamesa	-2	M	TYPE H	PB Reloc	$ 2,000	$ 4,000	$ 6,000	30.88
CR-2-3B	CR-2	Citizen Request	McCart	Altamesa	-3B	M	None	None	$ -	$ -	$ -	30.88
CR-2-4	CR-2	Citizen Request	McCart	Altamesa	-4	M	TYPE C	PB Reloc	$ 1,500	$ 4,000	$ 5,500	30.88
CR-7N-1A	CR-7N	Citizen Request	E. Lancaster	Beach	-1A	M	None	Flare	$ -	$ 750	$ 750	28.63
CR-7N-1B	CR-7N	Citizen Request	E. Lancaster	Beach	-1B	M	None	PB Reloc	$ -	$ 4,000	$ 4,000	28.63
CR-7N-2B	CR-7N	Citizen Request	E. Lancaster	Beach	-2B	M	None	Trans	$ -	$ 750	$ 750	28.63
CR-7N-3	CR-7N	Citizen Request	E. Lancaster	Beach	-3	M	None	Trans & PB	$ -	$ 4,750	$ 4,750	28.63
CR-7N-4	CR-7N	Citizen Request	E. Lancaster	Beach	-4	M	None	PB Reloc	$ -	$ 4,000	$ 4,000	28.63
CR-7S-1B	CR-7S	Citizen Request	E. Lancaster	Beach	-1B	M	None	Flare & PB	$ -	$ 4,750	$ 4,750	28.63
CR-7S-2A	CR-7S	Citizen Request	E. Lancaster	Beach	-2A	M	None	Flare	$ -	$ 750	$ 750	28.63
TR1-32-2	TR1-32	The T Route 1	Hemphill	Morningside	-2	M	TYPE H	None	$ 2,000	$ -	$ 2,000	23.88
TR1-32-3	TR1-32	The T Route 1	Hemphill	Morningside	-3	M	TYPE D	None	$ 1,500	$ -	$ 1,500	23.88
TR1A-4-1	TR1A-4	The T Route 1a	25th	Ross	-1	M	TYPE B	None	$ 1,500	$ -	$ 1,500	23.88
TR1A-4-2	TR1A-4	The T Route 1a	25th	Ross	-2	M	TYPE B	None	$ 1,500	$ -	$ 1,500	23.88
TR1A-4-3	TR1A-4	The T Route 1a	25th	Ross	-3	M	TYPE B	None	$ 1,500	$ -	$ 1,500	23.88
TR1A-4-4	TR1A-4	The T Route 1a	25th	Ross	-4	M	TYPE H	None	$ 2,000	$ -	$ 2,000	23.88
TR1A-5-1	TR1A-5	The T Route 1a	25th	Lee	-1	M	TYPE B	None	$ 1,500	$ -	$ 1,500	23.88
TR1A-5-2	TR1A-5	The T Route 1a	25th	Lee	-2	M	TYPE B	None	$ 1,500	$ -	$ 1,500	23.88
TR1A-5-3	TR1A-5	The T Route 1a	25th	Lee	-3	M	TYPE B	None	$ 1,500	$ -	$ 1,500	23.88
TR1A-5-4	TR1A-5	The T Route 1a	25th	Lee	-4	M	TYPE B	None	$ 1,500	$ -	$ 1,500	23.88
TR1A-8-2B	TR1A-8	The T Route 1a	25th	Lincoln	-2B	M	TYPE A	None	$ 1,500	$ -	$ 1,500	23.88
TR1A-20-1	TR1A-20	The T Route 1a	Azle	Dodge	-1	M	TYPE H	None	$ 2,000	$ -	$ 2,000	23.88
TR2-3-2	TR2-3	The T Route 2	East Lancaster	Hughes	-2	M	TYPE H	None	$ 2,000	$ -	$ 2,000	23.88
MD-4-3B	MD-4	Medical District	Pennsylvania	Henderson	-3B	M	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	23.38
MD-4-5B	MD-4	Medical District	Pennsylvania	Henderson	-5B	M	None	PB Reloc	$ -	$ 4,000	$ 4,000	23.38
TR1A-2-2	TR1A-2	The T Route 1a	25th	Houston	-2	M	TYPE H	None	$ 2,000	$ -	$ 2,000	22.88
TR1A-2-4	TR1A-2	The T Route 1a	25th	Houston	-4	M	TYPE H	None	$ 2,000	$ -	$ 2,000	22.88
TR1A-23-2B	TR1A-23	The T Route 1a	Azle	Grayson	-2B	M	TYPE B	None	$ 1,500	$ -	$ 1,500	22.88
TR1A-7-1	TR1A-7	The T Route 1a	25th	Refugio	-1	M	TYPE H	None	$ 2,000	$ -	$ 2,000	21.63
TR1A-7-2	TR1A-7	The T Route 1a	25th	Refugio	-2	M	TYPE B	None	$ 1,500	$ -	$ 1,500	21.63
TR1A-7-3	TR1A-7	The T Route 1a	25th	Refugio	-3	M	TYPE D	None	$ 1,500	$ -	$ 1,500	21.63
TR1A-7-4	TR1A-7	The T Route 1a	25th	Refugio	-4	M	TYPE B	None	$ 1,500	$ -	$ 1,500	21.63
MD-5-1	MD-5	Medical District	Henderson	Cannon	-1	M	TYPE D	None	$ 1,500	$ -	$ 1,500	18.88
MD-8-2	MD-8	Medical District	Terrell	5th Ave	-2	M	TYPE D	None	$ 1,500	$ -	$ 1,500	14.38
MD-8-4	MD-8	Medical District	Terrell	5th Ave	-4	M	TYPE D	None	$ 1,500	$ -	$ 1,500	14.38
MD-15-3	MD-15	Medical District	Cooper	5th Ave	-3	M	TYPE D	None	$ 1,500	$ -	$ 1,500	14.38
CR-5-2	CR-5	Citizen Request	Beach	Western Center	-2	M	TYPE C	PB Reloc	$ 1,500	$ 4,000	$ 5,500	8.13
CR-5-3	CR-5	Citizen Request	Beach	Western Center	-3	M	TYPE H	PB Reloc	$ 2,000	$ 4,000	$ 6,000	8.13

Appendix G – Low Priority Project List

Low Priority Curb Ramp Improvements												
RampID	**Int_ID**	**Study Area**	**Street1**	**Street2**	**Corner**	**Priority**	**Improve_Type**	**Improve_Other**	**Improve_Cost**	**Other_Cost**	**Total_Cost**	**PAS**
TR1-37-1	TR1-37	The T Route 1	Hemphill	Berry	-1	L	TYPE D	None	$ 1,500	$ -	$ 1,500	46.88
TR1-37-3	TR1-37	The T Route 1	Hemphill	Berry	-3	L	TYPE H	None	$ 2,000	$ -	$ 2,000	46.88
TR1-37-4	TR1-37	The T Route 1	Hemphill	Berry	-4	L	TYPE E	None	$ 1,750	$ -	$ 1,750	46.88
CR-3-2A	CR-3	Citizen Request	University	TCU	-2A	L	None	PB Reloc	$ -	$ 4,000	$ 4,000	35.88
CR-3-3B	CR-3	Citizen Request	University	TCU	-3B	L	None	Trans	$ -	$ 750	$ 750	35.88
TR1A-12-2B	TR1A-12	The T Route 1a	25th	Chestnut	-2B	L	TYPE B	None	$ 1,500	$ -	$ 1,500	34.38
TR1-36-4	TR1-36	The T Route 1	Hemphill	Bowie	-4	L	TYPE E	None	$ 1,750	$ -	$ 1,750	31.88
TR1A-24-2	TR1A-24	The T Route 1a	Azle	Menefee	-2	L	TYPE D	None	$ 1,500	$ -	$ 1,500	30.88
TR1A-24-3A	TR1A-24	The T Route 1a	Azle	Menefee	-3A	L	TYPE B	None	$ 1,500	$ -	$ 1,500	30.88
TR1A-25-2	TR1A-25	The T Route 1a	Azle	Long	-2	L	TYPE D	PB Reloc	$ 1,500	$ 4,000	$ 5,500	30.88
TR1-27-1	TR1-27	The T Route 1	Hemphill	Powell	-1	L	TYPE G	None	$ 1,750	$ -	$ 1,750	28.38
TR1-27-4	TR1-27	The T Route 1	Hemphill	Powell	-4	L	TYPE E	None	$ 1,750	$ -	$ 1,750	28.38
TR1A-9-2	TR1A-9	The T Route 1a	25th	Gould	-2	L	TYPE D	Trans	$ 1,500	$ 750	$ 2,250	28.38
TR1A-18-3A	TR1A-18	The T Route 1a	Azle	Rosen/ NW 26th	-3A	L	TYPE C	None	$ 1,500	$ -	$ 1,500	28.38
TR1-25-1	TR1-25	The T Route 1	Hemphill	Hawthorne	-1	L	TYPE E	None	$ 1,750	$ -	$ 1,750	26.38
TR1-25-2	TR1-25	The T Route 1	Hemphill	Hawthorne	-2	L	TYPE H	None	$ 2,000	$ -	$ 2,000	26.38
TR1A-8-1B	TR1A-8	The T Route 1a	25th	Lincoln	-1B	L	TYPE A	None	$ 1,500	$ -	$ 1,500	23.88
TR2-3-1A	TR2-3	The T Route 2	East Lancaster	Hughes	-1A	L	TYPE H	None	$ 2,000	$ -	$ 2,000	23.88
TR1-13-3	TR1-13	The T Route 1	Hemphill	Oleander	-3	L	TYPE B	None	$ 1,500	$ -	$ 1,500	23.38
TR1-24-2	TR1-24	The T Route 1	Hemphill	Arlington	-2	L	TYPE H	None	$ 2,000	$ -	$ 2,000	22.88
TR1-24-3	TR1-24	The T Route 1	Hemphill	Arlington	-3	L	TYPE G	None	$ 1,750	$ -	$ 1,750	22.88
TR1A-2-3	TR1A-2	The T Route 1a	25th	Houston	-3	L	TYPE E	None	$ 1,750	$ -	$ 1,750	22.88
CR-6-4B	CR-6	Citizen Request	E. Berry	Sirron	-4B	L	TYPE B	None	$ 1,500	$ -	$ 1,500	22.13
TR1A-3-4B	TR1A-3	The T Route 1a	26th	Clinton	-4B	L	TYPE A	None	$ 1,500	$ -	$ 1,500	21.63
CR-4-2	CR-4	Citizen Request	Western Center	Silver Sage	-2	L	TYPE H	None	$ 2,000	$ -	$ 2,000	17.63
CR-4-3	CR-4	Citizen Request	Western Center	Silver Sage	-3	L	TYPE C	None	$ 1,500	$ -	$ 1,500	17.63
CR-4-4A	CR-4	Citizen Request	Western Center	Silver Sage	-4A	L	None	PB Reloc	$ -	$ 4,000	$ 4,000	17.63
MD-10-1	MD-10	Medical District	Terrell	6th Ave	-1	L	None	Trans	$ -	$ 750	$ 750	16.13
CR-9-1A	CR-9	Citizen Request	Granbury	Hulen	-1A	L	None	PB Reloc	$ -	$ 4,000	$ 4,000	15.13
CR-92B	CR-9	Citizen Request	Granbury	Hulen	2B	L	None	PB Reloc	$ -	$ 4,000	$ 4,000	15.13
CR-93A	CR-9	Citizen Request	Granbury	Hulen	3A	L	None	None	$ -	$ -	$ -	15.13
CR-94B	CR-9	Citizen Request	Granbury	Hulen	4B	L	TYPE B	None	$ 1,500	$ -	$ 1,500	15.13
CR-2-1A	CR-2	Citizen Request	McCart	Altamesa	-1A	L	None	None	$ -	$ -	$ -	14.88
MD-15-2	MD-15	Medical District	Cooper	5th Ave	-2	L	None	Trans	$ -	$ 750	$ 750	14.38