North Central Texas Council of Governments

DART let's go.

DART Red & Blue Line Corridors Last Mile Connections Project

Final Report

City of Plano

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1. Introduction

One of the biggest challenges our nation's transit agencies face is finding a way to increase ridership in light of limited revenues. As is the case with many American cities, large portions of Dallas and its adjacent suburban areas have a relatively low population density level, which may make travel by transit a less viable option.

As an indication of these preferences, population density has been growing near transit stations along the Dallas Area Rapid Transit (DART) Blue and Red lines in the cities of Dallas, Garland, Plano, and Richardson. As ridership increases, the effects of existing gaps in infrastructure or barriers to pedestrian and bicycle accessibility at DART stations becomes more evident. These barriers have the potential to suppress the demand for rail traffic, increase motorized traffic to and from the rail stations, or increase safety risks for the roadway's most vulnerable users.

Coordination between transit agencies and city transportation offices is necessary in targeting first and last mile improvements that produce the greatest benefits while planning for anticipated costs. In support of these efforts, the North Central Texas Council of Governments (NCTCOG) initiated this study to verify exiting needs and to prioritize identified improvements for twenty-eight stations and their adjacent developed areas within the cities of Dallas, Garland, Plano, and Richardson.

1.1 Objectives

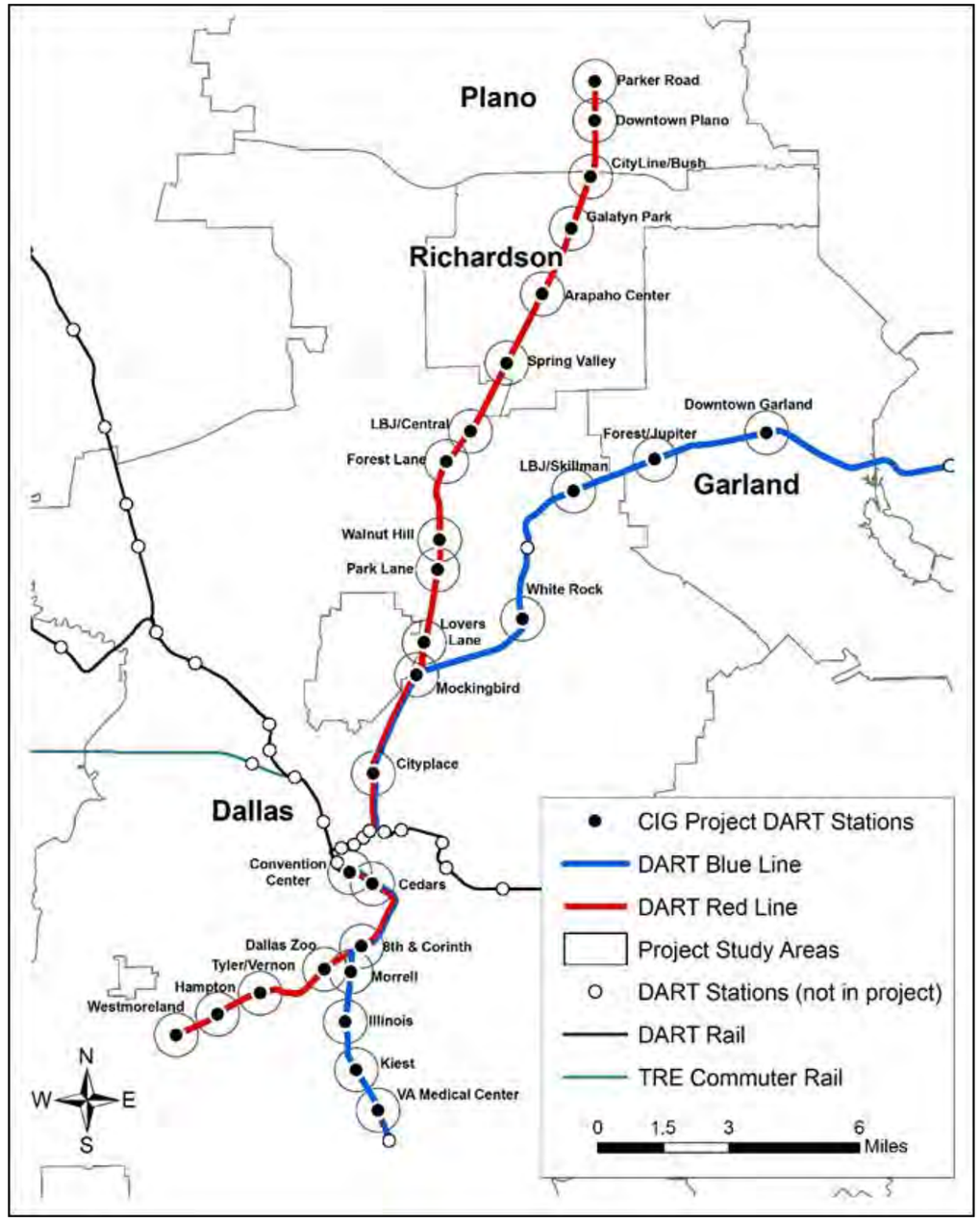
The project's objective is to provide opportunities for the greatest number of additional people to walk or bike to DART stations by identifying necessary sidewalk, shared use path, crosswalk connections, and related infrastructure within and surrounding the various DART stations. This was accomplished by:

- Conducting field investigation of existing pedestrian and bicycle infrastructure in the study area.
- Verifying the need for recommended pedestrian and bicycle improvements in priority corridors identified by NCTCOG to improve access and connectivity to light rail stations for the greatest number and density of residents and workers, thus increasing potential transit ridership.
- Identifying additional improvements based on field review, as necessary.
- Reviewing and updating NCTCOG's prior draft project prioritization of improvements based on information gathered during field review, engineering judgment, and criteria to be coordinated with City and DART staff stakeholders.
- Developing opinions of probable cost, and schematics for key pedestrian and bicycle improvements at rail stations and along prioritized routes to stations.

1.2 Study Area

The study area focused on the twenty-eight DART light rail stations built prior to 2004, included in the Red and Blue Line Platform Extension Project corridors, as shown in Figure 1.

Figure 1: Map of Study Area DART Stations



These stations are part of the Federal Transit Administration (FTA) Core Capacity Enhancement Capital Investment Grant, which made them eligible for FTA planning funds. Per FTA guidance, the one-half mile radius from the station is the effective planning area for transit-oriented development (TOD). These DART rail stations and their adjacent developed areas are located in the cities of Dallas, Garland, Plano, and Richardson.

While the intent of the planning work was to create corridor-level planning recommendations, not all areas surrounding all stations were reviewed using the same level of detail as part of this study; rather, strategic streets and sites within a broad selection of stations that were expected to be most cost effective were targeted for more thorough review.

1.3 Station Numbering & Report Organization

The system developed to organize improvements identified in the deliverables is illustrated in Figure 2. Each red or blue colored box in the figure represents a Red or Blue Line DART station respectively, arranged geographically from north to south. Purple boxes represent stations where the Red and Blue Lines run concurrently on the same alignment. Two-digit alpha-numeric codes assigned to each station are shown to the left of each box.

This report is organized for specific use by the City of Plano. Other volumes of this report have been provided to other project stakeholders (NCTCOG, DART, Dallas, Garland, and Richardson) which include similar details relevent to their jurisdictions. Figures common to all volumes of the report are numbered 1, 2, 3, etc. Figures specific to the City of Plano have figure numbers beginning with the code (1A, 1B, or 1C) assigned to each station.

1.4 Station Area Half-Mile Boundaries

The CityLine Bush station is the only station half-mile area in the project that is divided by a City boundary. As such, information about this station is repeated in both the Plano and Richardson versions of the report.

The half-mile radii of some stations overlap. In most cases, the overlapping areas were divided equally between the two (or three) station areas for ease of reporting.

In the case of the small overlap between the Parker Road and Downtown Plano Stations, the entire overlap area was assigned to Downtown Plano, due to the proximity to the terminus of the Red Line and the logical flow of ridership.

Figure 2: Project Station Numbering Schematic

City	Station ID	Red Line	Station ID	Blue Line
Plano	1A	Parker Road		
	1B	Downtown Plano		
	1C	City Line/Bush		
Richardson	2A	Galatyn Park		
	2B	Arapaho Center		
	2C	Spring Valley		
Garland			3A	**Downtown Garland***
			3B	**Forest/Jupiter***
Dallas	3C	LBJ/Central		
	3D	Forest Lane		
	4A	Walnut Hill		
	4B	Park Lane	4E	LBJ/Skillman
	4C	**Lovers Lane***	4F	White Rock
	4D	Mockingbird		
	8A	Cityplace		
	8B	Convention Center		
	8C	Cedars		
	5A	8th & Corinth		
	5B	**Dallas Zoo***	5C	Morrell
	6A	Tyler Vernon	7A	Illinois
	6B	Hampton	7B	Kiest
	6C	Westmoreland	7C	VA Medical Center

*** Station with high priority improvements for 15% design**

2. Methodology

The consultant group conducted field investigations for each of the twenty-eight DART station properties and surrounding one-half mile areas within the study area to examine existing conditions of pedestrian and bicycle infrastructure and to determine potential improvements. Field visits for each station were made between July 2018 and January 2019. Specific dates are listed in Appendix A.

2.1 Field Survey (DART Station Properties)

The consultant group documented the existing pedestrian, bicycle, bus, and motor vehicle circulation and patterns, as well as the wayfinding, signage, and lighting at each station. Potential station-area improvements were then identified, including sidewalks, curb cuts, crosswalks, shared use paths, lighting and wayfinding, among others.

In many locations, signage for motorized and nonmotorized users needs to be updated in order to conform with the Manual on Uniform Traffic Control Devices (MUTCD).

Many pedestrian facilities were observed to be non-compliant with Americans with Disabilities Act (ADA) regulations. While a full inventory of all ADA infrastructure was outside the scope of this study, some example problems have been identified in the recommendations. It is recommended that DART conduct complete accessibility reviews to identify and correct all such concerns within DART station properties.

Review of the Downtown Plano and CityLine Bush Stations was conducted while remaining cognizant of future connectivity to the DART Silver Line Commuter Rail (Cotton Belt) Project, currently in development.

2.2 Field Survey (Half-Mile Radii)

Inventories were developed of all proposed improvements within one-quarter mile of each station. Streets within one-quarter mile where existing sidewalks had been preliminarily identified as acceptable condition by NCTCOG were reviewed quickly by a combination of walking, biking, and/or driving. Within one-half mile of each station, the consultant team also reviewed corridors labeled as "Primary Routes" on NCTCOG's prior in-house mapping.

The primary focus of data collection efforts was information about major barriers to walking or biking to the stations. These included:

- Missing sidewalk links
- Unprotected crossings
- Multi-lane crossings
- Fences & landscaping
- Proximity to high-speed auto traffic

Map data from previous projects was reviewed revealing many locations where existing conditions had changed since NCTCOG's initial analysis. For example, recent sidewalk damage resulted in some additional gaps. Other gaps previously inventoried by NCTCOG had since been constructed by adjacent development or City/TxDOT projects.

2.3 Sidewalk Condition Classification

Existing sidewalk conditions were classified as acceptable or unaccaptable. As shown by the examples in Figure 3 on page 4, acceptable sidewalk was categorized as either "Excellent/Good" or "Fair." Unacceptable conditions included both "Poor" and "Nonexistent" sidewalk.

2.4 Incorporation of Other Data Sources

In some cases, additional improvements were constructed *after* the field work and were identified while conducting further review for prioritization on Google Maps aerial or Street View images. When such improvements were identified, the ArcGIS files were updated accordingly. However, other changes may have occurred between this review in Summer 2019 and the date of this report.

Information on several other sidewalk characteristics was compiled using Google Maps Street View in the office prior to the field visits and then verified by field personnel. For sidewalk segments, these characteristics included:

- Actual and effective sidewalk widths (accounting for obstructions such as utility poles)
- Type & width of buffer between sidewalk & street
- Presence & width of on-street parking, bike lanes & shoulder
- Presence of curb & gutter
- Posted speed limit
- Presence of lighting
- Number of adjacent travel lanes
- Adjacent land use category

The consultant team identified where sidewalk gaps are planned to be filled with shared use paths by reviewing NCTCOG's 2045 Regional Veloweb alignments adopted by the Regional Transportation Council. These were updated based on input from each city stakeholder about their most recent plans.

2.5 Identifying Crosswalks for Improvements

NCTCOG's prior in-house work identifying sidewalk gaps did not make any special considerations for crosswalks as distinct types of gaps in the pedestrian network. As part of this study, the consultants evaluated crosswalks at key locations, including:

- Existing signed and/or marked crosswalks crossing streets without signal or stop-sign control on the approaches being crossed.
- Unmarked/unsigned crossings of arterial or collector streets along radial lines to/from the station.
- Unmarked/unsigned crossings of arterial or collector streets not along radial lines to/from the station, but adjacent to significant pedestrian generators such as DART bus stops with significant levels of ridership, estimated by daily boarding and alighting data provided by DART.

Different types of field data were collected for signalized and unsignalized crosswalks during the field visits. At traffic signals, data collection included the number of lanes crossed in each direction, as well as the presence or absence of:

- Lighting
- Median refuge area
- Pedestrian ramps
- Countdown pedestrian signals
- Accessible pedestrian signals (APS)
- Pushbuttons (and if they were functional)

At unsignalized crosswalks, additional data collection items included:

- Whether the crosswalk had stop control for vehicular traffic or was uncontrolled.
- A two-minute count of traffic volumes crossing the crosswalk for locations where other daily traffic data from City or TxDOT sources was not available.
- Notes on any existing traffic control devices already present (such as signs, markings, or rectangular rapid flashing beacon (RRFB) assemblies.

Each input for both sidewalk segments and crosswalks were considered later for use in evaluating and prioritizing improvements, though some data were ultimately not utilized in order to simplify the prioritization process. Data collection forms (including handwritten notes taken on maps and pre-filled tables) are found in Appendix B.

2.6 Crosswalk Improvement Selection

At existing or proposed crosswalks without existing stop sign or signal control, potential improvements were evaluated based on guidance in the Federal Highway Administration's (FHWA) recent publication, "Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations" (July 2018). This publication includes enhanced guidance on countermeasures that can or should be considered for uncontrolled crosswalks with various combinations of vehicular speed, traffic flow, and number of lanes to be crossed. A selection table reproduced from this publication and additional details about how the consultant team used it to develop crosswalk improvement recommendations are found in Appendix C.

Improvement options evaluated by this methodology include high visibility crosswalk markings, parking restrictions on the crosswalk approach, upgrading lighting, pedestrian crossing warning signs, "Advance Yield Here for Pedestrian" signs, curb extensions, median pedestrian refuge islands, rectangular rapid-flashing beacons (RRFB's), road diets, and pedestrian hybrid beacons. Road diets were only recommended if roadways would likely still have excess capacity after the lane reductions.

A Microsoft Excel spreadsheet was created to automate the methodology and quickly produce a list of potentially recommended improvements given the inputs entered for each candidate crosswalk improvement location to be considered for the project. The analyst in each case still used engineering judgment to select which countermeasure options would ultimately be recommended. The inputs, options, recommendations, and notes are tabulated in tables found in Appendix D.

Figure 3: Sidewalk Condition Classification

Excellent/Good

- Functional for all users
- Meet all City & ADA standards (based on a superficial visual inspection only)

Fair

- May not be functional for some users, including those needing full ADA accessibility.
- Do not constitute gaps in the pedestrian network that would warrant replacement under funding programs designed to foster increased travel choices by walking and biking.
- May have moderate cracking & flaking with minimal uprooting or cracking.
- Minimal uplift by tree roots or other sources (estimated to be < 2" based on quick visual inspection)
- May warrant funding for accessibility upgrades under other programs designed specifically for that purpose or as part of cities' ADA Transition Plans
- Acceptable for the purposes of this project as being useful for a significant portion of the public who may be able to use them to travel to/from DART station.

Poor

- Poses potential hazards for all users.
- Severe cracking & flaking, with major uprooting & more significant trip hazards (vertical elevation differences > 2")
- Difficult to use by those pushing a wheelchair, cart, or stroller.
- Would require complete removal & replacement of at least one sidewalk panel.
- A few locations where steps had been consciously built into the sidewalk were also considered gaps.

Nonexistent

- Includes longer gaps of a City block or more
- Also some locations where individual panels were completely missing

- For vertical incongruities < 2", assumed that maintenance programs can make sidewalk passable to wheelchairs & strollers by providing asphalt wedges and/or grinding off corners < half depth of typical four-inch sidewalk slab.
- Since this project is targeting improvements that can be addressed by funding for new construction rather than maintenance funding, any trip hazards < 2" were assumed to be corrected by maintenance activities & therefore did not counts as gaps

2.7 Stakeholder Involvement

Coordination meetings were conducted with all technical stakeholders including staff from the cities of Dallas, Plano, Garland, and Richardson, as well as staff from DART and NCTCOG to review the recommendations, and for information specific to their jurisdiction and background knowledge of study locations, as needed. Meetings with the public were not held as part of this work.

2.8 Half-Mile Area Improvement Prioritization – Initial Trial Method

To provide opportunities for the greatest number of additional people to walk or bike to DART stations by constructing sidewalk, shared use path, crosswalk connections, and related infrastructure, the prioritization of identified improvements was structured to provide balance between estimating this objective accurately and applying the methodology to a large study area.

Initially, a prioritization approach that attempted to track as closely as possible to potential ridership increases was tested for the Parker Road Station in Plano, with adjustments for safety, key destination access, and equity. Though some of the elements of this initial prioritization methodology were ultimately not included in this study, they are documented in Appendix E as being potentially useful for later studies on a smaller scale. Also, many of the assumptions and methodologies explained in Appendix E were retained in the ultimate methodology.

2.9 Half-Mile Area Improvement Prioritization – Final Methodology

The prioritization process used to score potential projects placed significant emphasis upon distance to/from the station and the number of (density) of persons on parcels that could be connected by constructing new infrastructure—the potential new riders who could access the DART station. The study did not attempt to correlate how many people would actually use DART if the walking and bicycling routes to the rail station were improved.

Table 1 on page 6 identifies the criteria and weighting applied to rank potential projects. Additional details about the final methodology scoring process, including figures illustrating scoring for Plano's Parker Road Station, are provided in Appendix F. Highlights for each category and percent weight in the scoring system are as follows:

Figure 4: **Employment and Population "Tributary" to Sidewalk & Crosswalk Improvements**

Tributary Employment & Population (50%): Each sidewalk and crosswalk improvement was scored based on the total employment plus population that would be "tributary" to the station via the improvement once all proposed improvements are constructed.

Figure 4 illustrates the concept of tributary employment and population. It shows the parcels in the Parker Road Station area, with darker shades of gray representing higher population/employment totals. Note that, while some of the improvements shown in Figure 4 differ from the final recommendations, the principles illustrated still apply.

In the figure, each sidewalk and crosswalk improvement link is shown in different colors depending on the total employment plus population that would be "tributary" to the station via the improvement once all proposed improvements are constructed. The tributary employment plus population values are shown next to each link, with red links nearest the station having the highest values.

Distance (25%): Each improvement was scored based on distance to the station, measured linearly "as the crow flies" for simplicity. Improvements that connect directly to the station have a distance of 0.0 miles.

Trip Length Reduction (5%): Each improvement was evaluated based on the percentage reduction in walking distance to the station that would occur for the population of a representative reference parcel.

Access (5%): Land uses with a high proportion of visitors to employees and locations near bus routes received priority in the scoring for this criterion.

Crash History (5%): A GIS shapefile was used containing the point location of all reported bicycle and pedestrian crash locations for the study area from 2013 to 2017. While the scope of this project did not include pedestrian volume data collection, the crash data was observed to serve as somewhat of a surrogate for pedestrian demand. Therefore, a cluster of crashes may be more indicative of a place where many people walk than of a place that's more dangerous to walk in terms of the risk to individual pedestrians.

Systemic Safety (5%): A more recent development in transportation safety that is designed to combat the drawbacks of traditional crash analysis is the concept of "systemic safety" which refers to approaches that are data driven and network-wide. This approach considered improvements

Table 1: Weighting Criteria for Scoring Sidewalk and Crosswalk Improvements

Category	Tributary Employment & Population	Distance	Trip Length Reduction	Access		Safety		Equity
						Crash History	Systemic Safety	
Weight	**50%**	**25%**	**5%**	**5%**		**5%**	**5%**	**5%**
Inputs	Parcel population & jobs, GIS Network Analyst runs	Distance from Station	% Change in Pedestrian Trip Length	Other Nearby Destinations	Bus Routes	Number of nearby crashes in 5-year period	Posted Speed Limit	Environmental Justice Index
Description	Potential riders "upstream" of specific sidewalk or crosswalk improvements	Distance from individual improvements to station, measured "as the crow flies"	Measured for densest or farthest reference parcel tributary to each specific sidewalk or crosswalk improvement	Number of key destinations (hospitals, clinics, urgent care, schools, government buildings, courthouses, senior living, community centers, gardens, grocery stores, malls, supercenters, hotels, motels, entertainment, fine arts, parks, landmarks, athletic facilities, places of worship, libraries, museums, bus stops with > 25 daily boardings) within 250 feet of each improvement	Number of bus routes within 50 feet of each improvement that are also > 1/4 mile from station (Up to 3 points from bus routes but max. 5 points overall for key destinations and bus routes)	Number of crashes within 250 ft of improvement in 5-year period	Posted speed limit of parallel street or street being crossed	Designation of Above/Below Regional Average Percentage for Minority & Low-Income Populations
High Criteria/ Scoring Range	9,430 - 11,787 (20 to 25 points)	0 to 1/8 mile (25 to 19 points)	40-100% (5 points)	5+ destinations (5 points)	3+ routes (3 points)	5+ crashes (5 points)	≥ 45 mph (5 points)	Above Average for Both Minority and Low-Income (5 points)
Medium High Criteria/ Scoring Range	7,073 - 9,429 (15 to 20 points)	1/8 to 1/4 mile (18 to 13 points)	20-40% (3-4 points)	3-4 destinations (3-4 points)	2 routes (2 points)	3-4 crashes (3-4 points)	35-40 mph (3-4 points)	Above Average for Minority or Low-Income (3 points)
Medium Low Criteria/ Scoring Range	2,358 - 7,072 (5 to 15 points)	1/4 to 3/8 mile (12 to 6 points)	1-20% (1-2 points)	1-2 destinations (1-2 points)	1 route (1 point)	1-2 crashes (1-2 points)	25-30 mph (1-2 points)	
Low Criteria/ Scoring Range	0 - 2,357 (0 to 5 points)	3/8 to 1/2 mile (5 to 0 points)	0% (0 points)	No other destinations (0 points)	0 routes (0 points)	0 crashes (0 points)	≤ 20 mph (0 points)	Below Average for Minority and Low-Income (0 points)

at locations with similar characteristics to high crash locations, even if the locations where improvements are to be considered or proposed don't themselves have significant crash history.

As a measure of systemic safety, the project team opted to use the posted speed limit of the roadway adjacent to sidewalk improvements or crossed by crosswalk improvements. Vehicular speed is regarded as correlating well to safety outcomes in bicycle and pedestrian crashes.

Equity (5%): The equity criterion emphasized improving communities with populations that have not historically received equal access to resources. The consultants were provided spatial data for the project area with NCTCOG's Environmental Justice Index (EJI) to comply with federal rules for identifying Environmental Justice populations. The EJI is based on data from the 2013-2017 American Community Survey, aggregated at the census block level. Each census block is categorized if the percentage of its residents is higher than the regional average for minority population, low income, or both.

2.10 Gaps to Remain

The consulting team categorized some locations where gaps in the pedestrian network had been identified by NCTCOG during preliminary GIS work to be gaps to remain for the final project listing. This decision was based on field conditions that would be impractical or undesireable to implement or would make sidewalk construction extremely cost-prohibitive. Examples are detailed in Appendix F.

2.11 Improvement Numbering

Each proposed improvement, usually consisting of a single crosswalk or segment of sidewalk along a single city street block, was assigned a unique project-wide identification number for reference. The identification number consisted of:

- A two-digit code for the station area, matching the codes shown in Figure 2 earlier (For example, 1A for Parker Road, 1B for Downtown Plano, 1C for CityLine Bush).
- A two-letter abbreviation for the station name for easier reference (For example, PR for Parker Road, DP for Downtown Plano, CB for CityLine Bush).
- A two-letter code for the type of improvement (SW for sidewalk, CW for crosswalk, RP for repair, VW for Regional Veloweb, SP for shared use path, GP for gap to remain).
- A two- or three-digit number unique to identify the improvement location on project mapping. In addition to the VW improvement type code described in the bullet above, Regional Veloweb shared use path links have an improvement location number beginning with the letter V (V01, V02, etc.) to differentiate them from other improvements since they were numbered separately beginning at 1.

2.12 Prioritization Scoring

The consulting team evaluated each proposed improvement for the seven criteria described in Section 2.9 and Table 1. The proposed improvements were scored, and then sorted based the combined overall score. Possible total values ranged from 0-100 points. Additional details are included in Appendix F.

For each city (Dallas, Garland, Plano, and Richardson) separate scales were set for dividing improvements of varying scores into high, medium, and low-priority categories, but remained consistent for all stations within that city. The thresholds between high- and medium priority and medium- and low-priority were set such that approximately one-third of improvements for each city were allocated into each category. For half-mile areas surrounding DART rail stations in Plano, the scoring ranges were as follows:

- High Priority = 23 to 100 points
- Medium Priority = 17 to 22 points
- Low Priority = 0 to 16 points

The highest scoring improvement evaluated in Plano was 1A-PR-VW-V03, a segment of Regional Veloweb shared use path planned to extend from the station platform along the west side of the tracks south to Park Blvd. This improvement received a score of 54 points.

3. Improvement Recommendations

The following sections include project mapping and opinions of probable construction costs for existing and proposed conditions, and improvements that have been identified to improve pedestrian and bicyclist access to the stations.

3.1 DART Station Property Recommendations & Opinions of Probable Construction Cost (OPCC)

The first figure in each set that follows for individual station properties on pages 9, 14 and 15 illustrates the station area including DART property limits, existing sidewalks, Regional Veloweb shared use paths and local shared use paths in and around each station. Some proposed facilities on surrounding streets and connecting to station platform areas are drawn from the City of Plano's 2018 Bicycle Transportation Map, while other proposed facilities are new recommendations made herein based on this study.

The figure(s) on pages 10-12 and 15-17 show photographs of existing conditions at the same locations, referenced by matching, numbered orange stars. In many cases, the field photographs are enhanced with graphics to illustrate the proposed signing, pavement markings, or other traffic control devices that are recommended.

For each station, opinions of probable construction cost (OPCC's) were developed for each improvement, unless otherwise noted. The following cost components (totaling 25%) were applied to all costs, as directed and approved by both NCTCOG and DART:

- 10% design fee
- 4% mobilization
- 4% for landscaping allowance
- 2% for Erosion & Sediment Control Allowance
- 3% for traffic control
- 2% extra contingency for federal aid project

For additional details about the OPCC's, see Appendix G and Section 3.3 later in this report.

3.1.1 Parker Road Station (on DART Property)

Figure 1A-1.1 on page 9 shows the 18 improvements recommended for Parker Road Station within DART right-of-way. Figures 1A-1.2, 1A-1.3, and 1A-1.4 on pages 10-12 illustrate existing conditions at the 18 improvement locations.

A basic challenge for pedestrian and bicycle access to this station is the lack of direct connections to and from property to the east. The entire east boundary of the DART property is fenced and signed to prohibit pedestrian access. Despite this, the fencing near the station platform is low, allowing some pedestrians the ability to jump it to reach the platform after crossing the parking lot for the Plano Super Bowl bowling alley to the east.

A new Regional Veloweb shared use path had earlier been anticipated to connect to the east of the station on the north side of the Plano Super Bowl property, across K Ave at a pedestrian hybrid beacon, and along a creek greenway to the existing Santa Fe Trail, whose western terminus is about 2/3 mile east of the station platform. This alignment is indicated in the figures in Appendices E and F. This shared use path alignment would provide a significantly shorter walking or biking distance to the station for residents of the 1201 Park Apartments (with over 600 residents) on the east side of Dobie Dr, as well as single-family neighborhoods farther east.

However, City of Plano staff indicated that the right-of-way easements for this shared use path had proven too difficult to obtain, and so it had been removed from the City's 2018 update to the Bicycle Transportation Plan. Consequently, the path was removed and substituted with a new local shared use path (#15 in Figures 1A-1.1 and 1A-1.3 on pages 9 and 11, respectively) extending east from the south end of the station platform through property owned by the City of Plano. More information on the portion of this improvement extending farther away from the station is shown in Figure 1A-2, in Section 3.2 on page 19.

The shared use path connection to the station platform south of the Plano Super Bowl would be complemented by a taller, anti-climb fence along the remainder of the station's eastern boundary to discourage crossing of the northbound tracks at unauthorized locations (shown as #18 in Figures 1A-1.1, 1A-1.3, and 1A-1.4 on pages 9, 11 and 12). An example of this type of fencing, built recently along Lancaster Ave in Fort Worth, is shown in Figure 1A-1.4 on page 12.

Other more direct connections to areas northeast and southeast of the station would be provided by constructing the north-south Regional Veloweb shared use path on the west side of the station platform, parallel to the tracks, shown as improvements #3 and #14 in the mapping and existing conditions figures on pages 9-11. More information on the portion of this improvement extending farther away from the station is shown in Figure 1B-2 referenced in Section 3.2 on page 20.

Other recommended improvements include:

- Adding pedestrian lighting for the sidewalk in the wooded area northwest of the bus loop
- Improving the crosswalks crossing Archerwood St
- Adding and improving existing bicycle parking
- Moving ADA parking closer to the accessible sidewalk routes to the station platform
- Modifying landscaping to better channelize pedestrian movements and provide clear, full sidewalk width for pedestrians.
- Making signing and pavement markings consistent with the Manual on Uniform Traffic Control Devices (MUTCD) for compliance and for improved motorist, pedestrian, and bicyclist understanding of multi-modal conflict areas.

Refer to the figures for additional details.

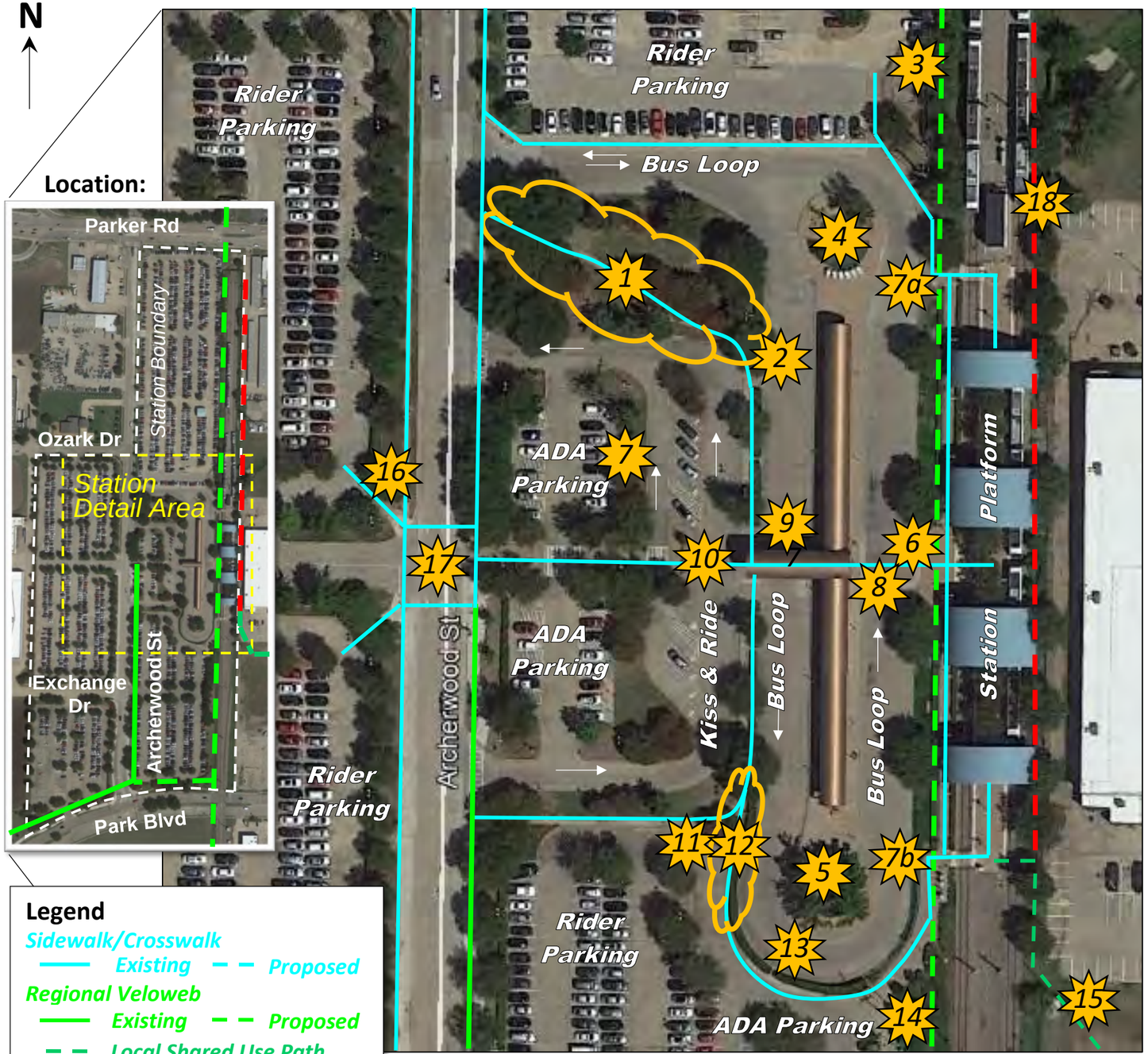
The total OPCC for the improvements on the Parker Road Station DART property is approximately $362,000. This excludes the cost of the Regional Veloweb and local shared use paths crossing DART property (1A-PR-ST-03 and 1A-PR-ST-14 and 1A-PR-ST-15), which are assumed to be separate projects itemized later under Section 3.2.1. Matrix tables listing the estimated costs for individual improvements, as well as line item calculations, are included in Appendix H.

Parker Road Station Recommended Access Improvements

Total for All Recommendations at Station: **$361,650**

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections



Number	Description
1	Add pedestrian lighting for area where tree cover makes for dark nighttime conditions.
2	Close gap in hedges that appears to imply this as a valid location for crossing the bus loop. Consider fencing to redirect pedestrians. The lack of ramps or a crosswalk across the bus loop here makes this an inappropriate location for a crossing. A fire hydrant here is likely the reason for the gap in the hedges, so fire hydrant access from the bus loop should be preserved.
3	Add Regional Veloweb shared use path to connect platform more directly to Parker Road to the north. Will require grading, new fence between parking lot and tracks, and drainage modifications. Concrete drainage swales drain parking lot downhill toward the east at several locations across proposed path alignment, so additional study will be required.
4-5	Add educational signing at all covered bike parking locations regarding rules of use. Existing covered bike parking lids were locked. Several of the locked lids were empty without bikes inside or were storing personal belongings. The locking of empty lids indicates a shortage of available covered bike parking.
6	Add additional covered bike parking, preferably closer to train platform (at Location 4).
7	Relocate ADA parking from Location 7 closer to the north crosswalk to the train platform (near Location 3). Reasons for this change are: • Ramps are absent for crossing the southbound tracks east of the bus loop (near Location 6). • Much of the ADA parking for the station is in the small parking lot immediately west of the bus loop (Location 7 and southwest of Location 10). Some ADA parking is already located southwest of the platform near Location 14. • The lack of ramps near Location 6 requires passengers in wheelchairs to travel to the compliant crosswalks at the north or south ends of the platform (Locations 7a or 7b) rather than the more direct route via the central crosswalk.
8-9	Add 12” white markings on each side of brick paver crosswalks. Bus loop crosswalks are stop-controlled, but need white markings outside the brick area to be legal crosswalks.
10	Add pedestrian warning signs and 12” white markings outside brick pavers for Kiss & Ride crosswalk. (Crosswalk is raised to slow drivers but not signed or marked.)
11	Correct trip hazard on sidewalk.
12	Trim hedges or replace with easier maintenance plants so they don’t encroach on sidewalk.
13	Close hedge gap that provides access to existing covered bike parking (at Location 5), Gap in hedges is convenient for bicycle access to existing covered parking, but lacks ramps and conflicts with bus loop. Provide bike parking closer to platform as indicated at Location 4 above.
14	Add new shared use path connecting platform more directly to Park Blvd to the south on planned Regional Veloweb alignment. May require relocation of utilities or removal of trees and/or parking spaces.
15	Add connection via City-owned property south of platform. Additional study will be required.
16	Trim tree blocking flashing light for crosswalk.
17	Improve the visibility of the two crosswalks across Archerwood Street: • Add pushbuttons at each ramp so the flashing warning lights on Archerwood St don’t need to operate only on a time-of-day peak hour schedule. (They were observed inactive during off-peak hours). • Add advance yield lines and “Yield Here to Pedestrians” signing. • Consider converting to Rapid Rectangular Flashing Beacon (RRFB).
18	Add taller anti-climb fence along east DART property line from north end of tail track to southeast corner of platform to channelize pedestrian crossings to new connection via Plano City property to the southeast.

Not for Construction

FIGURE 1A-1.1 NOT TO SCALE **JULY 2020**

LEE ENGINEERING 30 YEARS OF EXCELLENCE

Parker Road Station Existing Conditions at Improvement Locations

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

Not for Construction

Sample Bike Parking sign:

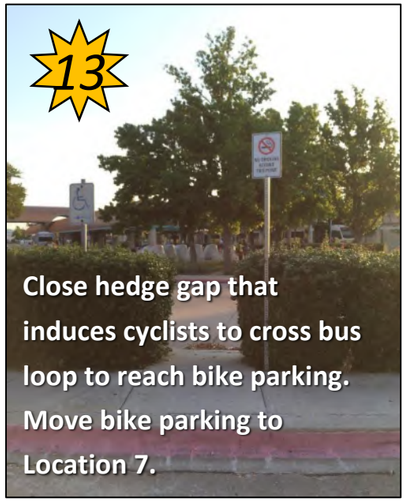
FIGURE 1A-1.2 **JULY 2020**

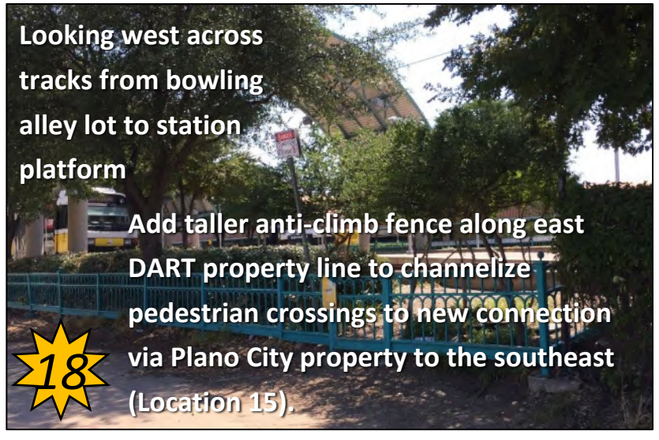
LEE ENGINEERING 30 YEARS OF EXCELLENCE

Parker Road Station Existing Conditions at Improvement Locations

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections





Not for Construction

FIGURE 1A-1.3 **JULY 2020**

LEE ENGINEERING 30 YEARS OF EXCELLENCE

Parker Road Station Existing Conditions at Improvement Locations

An example of the anti-climb fence in Fort Worth, which is located on Lancaster Ave between Sargent Ave and Oakland Blvd (shown below).

https://dfw.cbslocal.com/2019/07/26/txdot-installs-metal-fence-address-fort-worth-pedestrian-issue/

Not for Construction

3.1.2 Downtown Plano Station (on DART Property)

Figure 1B-1.1 on page 14 identifies two recommended improvements as well as existing conditions at the Downtown Plano Station. This station has a small geographic footprint without a DART-controller Park & Ride lot, so the number of on-site improvement opportunities are limited.

The two recommended improvements include additional bike parking and improving the crosswalk across 15th St immediately south of the station. The City of Plano notes that this second improvement is already planned under upcoming CIP project 6993. The total OPCC for the improvements for Downtown Plano Station on DART property is approximately $12,400, for the bicycle parking (1B-DP-ST-02).

The OPCC excludes any widening of the existing sidewalk (already about 8' wide or more in most places) on the west side of the DART tracks to convert it into a future shared use path on the Regional Veloweb system, since this widening would not be necessary for basic pedestrian access and could therefore occur later than other improvements as a separate project without having a significant impact on multi-modal access to the station. The City and DART could implement a separate dedicated bicycle facility (such as through Haggard Park) rather than widening the existing sidewalk, which could be retained for pedestrian only accommodations, The existing parking lot west of the station could also be reconfigured to accommodate a shared use path or dedicated bikeway.

Tables listing the estimated costs for individual improvements, as well as line item calculations, are included in Appendix H.

3.1.3 CityLine Bush Station (on DART Property)

Figure 1C-1.1 on page 15 identifies ten improvements recommended at CityLine Bush Station on DART property. Note that only those improvements located north of the President George Bush Tpk (PGBT) centerline are located in the City of Plano, with the station platform itself and all other improvements in Richardson. Figures 1C-1.2 and 1C-1.3 on pages 16-17 illustrate existing conditions at the ten improvement locations. Several of the improvements discussed are at the boundary of DART's right-of-way and would therefore require coordination between DART, TxDOT, NTTA and/or the Cities of Plano and Richardson. (TxDOT maintains the PGBT frontage roads as SH 190). These improvements are also discussed in Section 3.2 and the accompanying Figure 1C-2 on page 22) detailing off-station improvements.

The recommended improvements include:

- Constructing enhanced crosswalks for crossing the PGBT westbound frontage road at Crawford Rd/Topridge Dr and just east of the DART track crossing. See items 7 and 10 in Figure 1C-1.1. Enhanced conspicuity for crossing pedestrians and bicyclists is needed due to the high speeds permitted on the frontage roads and the large apartment complexes recently constructed on the north side of the PGBT. The crossing east of the DART tracks is being constructed as part of the Cotton Belt Trail construction.
- Providing short, more direct sidewalk paths connecting to adjacent private property to follow observed worn paths in the grass indicating existing pedestrian demand. See items 3 and 6 in Figure 1C-1.1. Coordination with adjacent property owners would be required.
- Adding and improving ADA ramps for better wheelchair access on the station platform.
- Adding pedestrian warning signs at crosswalks to the station platform.

Refer to the figures for additional details.

DART's Silver Line project will provide future commuter rail service beginning in late 2022 between DFW Airport and the new Shiloh Road Station east of the CityLine Bush Station. Many of the sidewalk connections in and around the existing CityLine Bush Station platform, including the last two items in the bulleted list above, will be reconstructed in the near future as part of the Silver Line project.

The total OPCC for the DART improvements in Plano is approximately $70,000. This excludes costs for improvements 1C-CB-ST-01 through 1C-CB-ST-06, which are located in the City of Richardson, some assumed to be mostly on private property. The $70,000 total includes a portion of costs for improvements 1C-CB-ST-07 through 1C-CB-ST-10, which were also integral to the half-mile area analysis undertaken in Section 3.2 and are therfore quantified more completedly together with off-site improvements as shared costs between DART, the City of Plano, and the City of Richardson. Tables listing the estimated costs for individaul improvements, as well as line item calculations, are included in Appendix H.

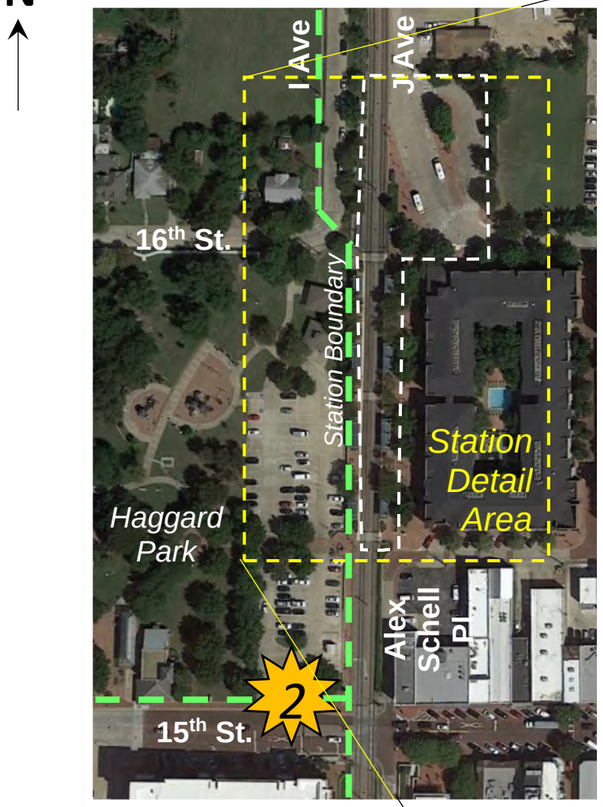
Downtown Plano Station Recommended Access Improvements

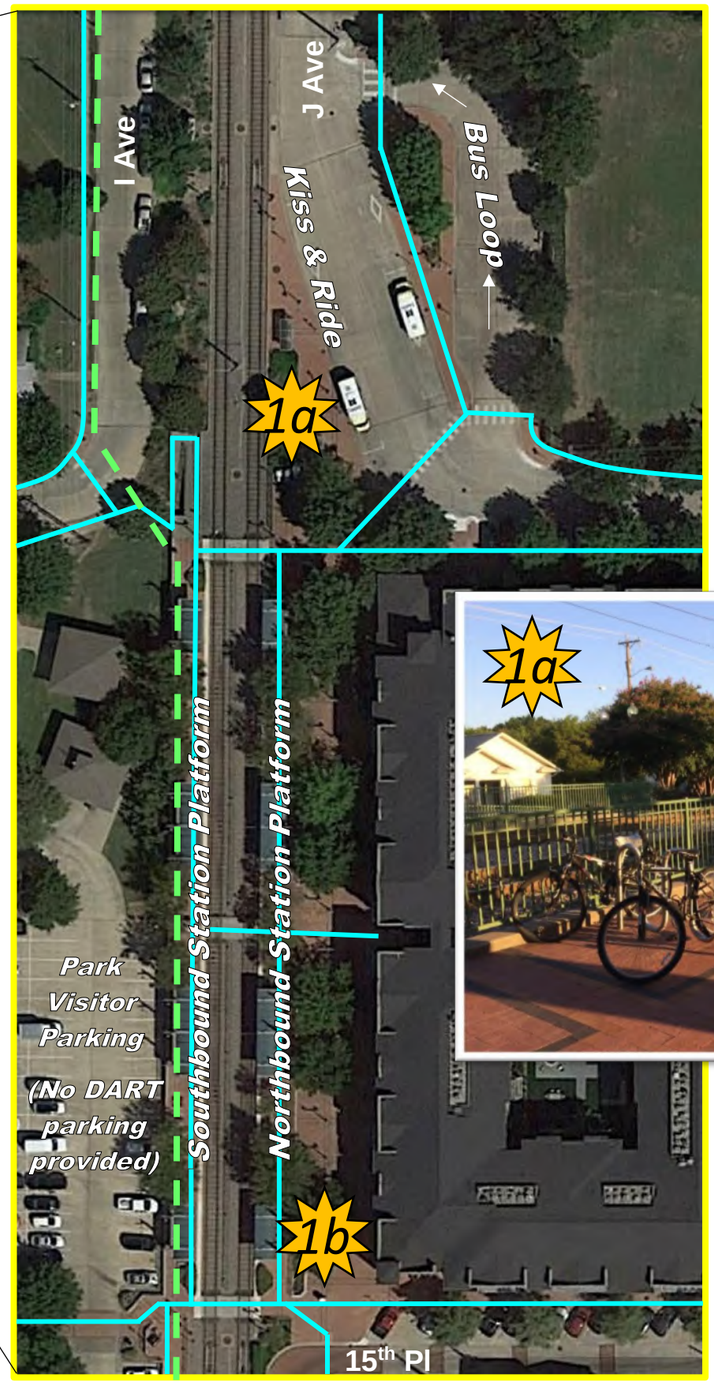
Total for All Recommendations at Station: **$12,350**

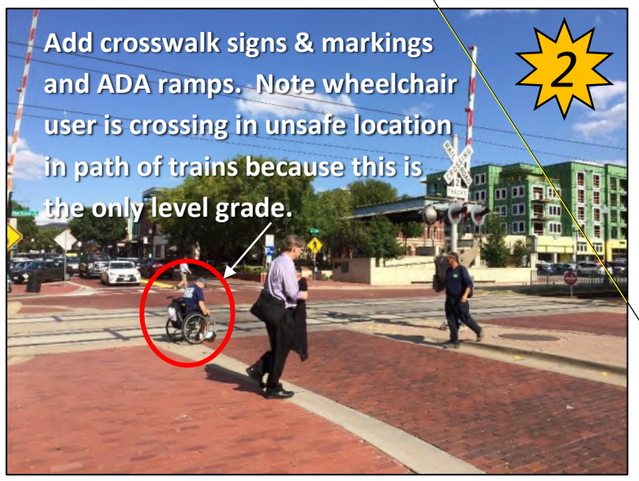
North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

Location:







Number	Description
1	Increase supply of covered bike parking. Three covered bike spaces at Location 1a north of the platform were observed locked but empty at 7 am, indicating unmet demand. Locate new bike parking near south end of platform (near Location 1b) for improved access for cyclists traveling to and from the south. At both locations, add signing to discourage improper use of covered bike parking.
2	Build multi-use trail on proposed Regional Veloweb alignment west of DART tracks and on north side of 15th Street west of tracks. Where the future trail alignment crosses 15th Street, existing pedestrian demand already exists, as shown in the photo for Location 2. Crosswalk signs & markings, a median cut-through island, and ADA ramps are needed here. Pedestrians, including one wheelchair user, were observed crossing 15th Street between the tracks and the railroad crossing gates due to the lack of an accessible path.

DRAFT – Not for Construction

NOT TO SCALE

Legend

Sidewalk/Crosswalk

Existing

Regional Veloweb

Proposed

Sample Bike Parking sign:

FIGURE 1B-1.1 **JULY 2020**

LEE ENGINEERING 30 YEARS OF EXCELLENCE

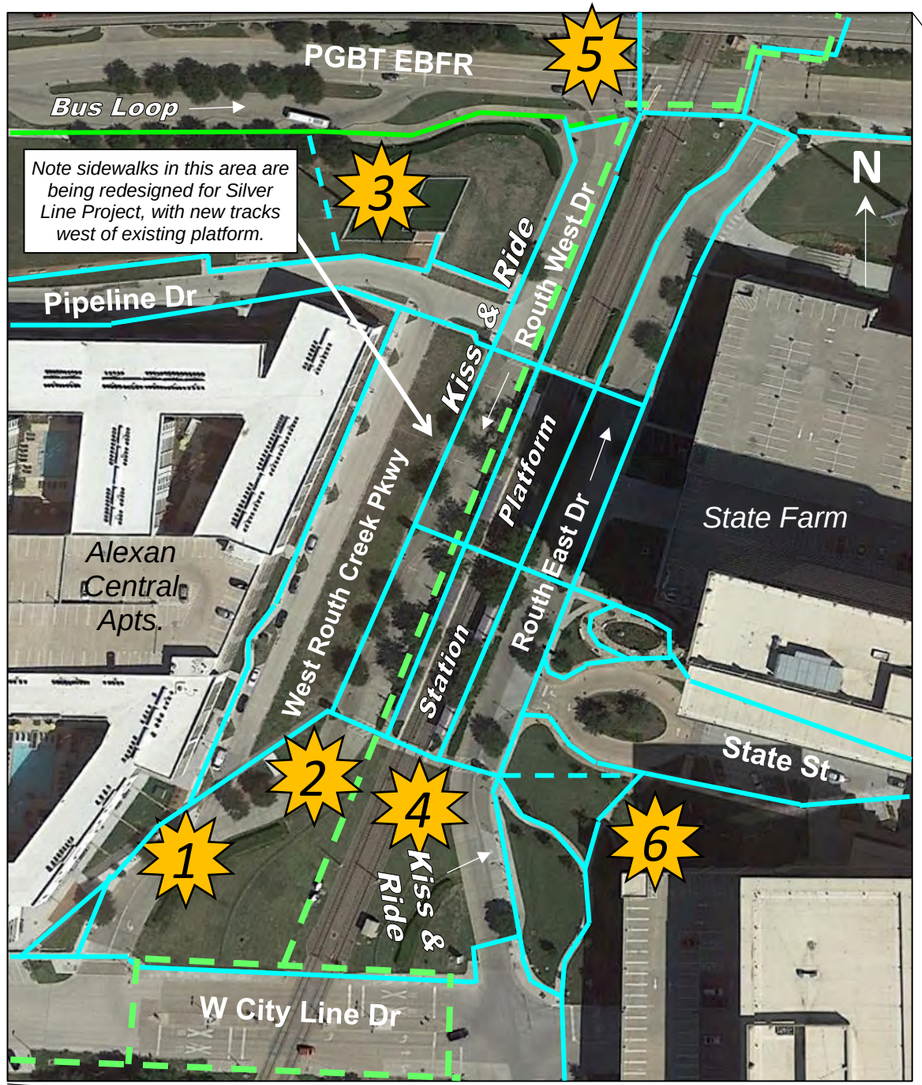
CityLine/Bush Station Recommended Access Improvements

Total for All Recommendations at Station: **$152,600 (=$69,600 in Plano + $83,000 in Richardson)**

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

Number	Description
1	The Dallas tourism "BiG" sign on Routh West Dr just south of the station should be reversed to face the opposite direction or the sign should be relocated to a safer position. The sign faces the street, a poor orientation since those taking photographs of others posing at the sign will be tempted to stand in the travel lanes.
2	Widen the ADA ramp to Routh West Dr from the south end of the platform to allow wheelchair users to bypass the large vine sculpture blocking the top of the ramp.
3	Coordinate with adjacent property owner to add a direct sidewalk connection between train platform & bus loop. A worn path in the grass ("goat trail") exists between the southwest corner of the Alexan Central Apartments dog park on Pipeline Dr and the DART bus stops along the PGBT eastbound frontage road. This is the most direct route between the train station platform and the bus stops, shorter than walking north along Routh West Dr and the frontage road. See improvement 1C-CB-SW-071.
4	Add pedestrian warning signs on the right-hand side of the roadway at the six crosswalks to the station platform across Routh East Dr and Routh West Dr. Existing signs are mounted on the left-hand side only. Add missing ADA ramps at two of the same locations.
5	Repair the sidewalk panel where settlement has created a trip hazard near the pedestrian pushbutton on the north side of the President George Bush Turnpike (PGBT) eastbound frontage road at Routh West Dr.



NOT TO SCALE

Legend

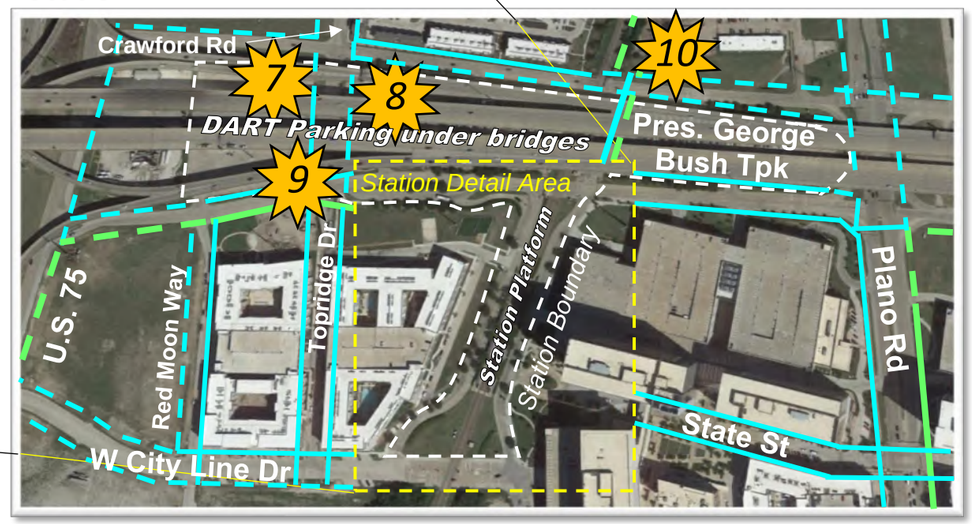
Sidewalk/Crosswalk
- *Existing*
- *Proposed*

Regional Veloweb
- *Existing*
- *Proposed*

Number	Description
6	Coordinate with the adjacent property owner to construct a short segment of sidewalk for more direct travel between the southern crosswalk to the train platform and the south sidewalk along State St. A "goat trail" cuts the corner where the existing sidewalk is offset from the crosswalk, indicating existing pedestrian demand.

Number	Description
7	Construct a new, short segment of sidewalk on the west side of the Crawford Rd/Topridge Dr crossing under the PGBT, near the north end of the underpass adjacent to the PGBT westbound frontage road (WBFR). Add marked, signed crosswalks across both legs of the WBFR. The existing sidewalk on the west side extends north from the EBFR but ends just south of the WBFR. Provide pedestrian hybrid beacon with advance "Yield Here to Pedestrians" signing for crossing PGBT westbound frontage road. See also half-mile area improvements 1C-CB-CW-042 and 1C-CB-CW-043 for more information.
8	Add sidewalk on east side of Crawford Rd/Topridge Rd between PGBT frontage roads. See also improvement 1C-CB-CW-056 in the half-mile improvements map & matrix.
9	Add a crosswalk across the east leg of the PGBT Eastbound Frontage Road (EBFR) at Topridge Dr. Provide pedestrian hybrid beacon with advance "Yield Here to Pedestrians" signing. See also half-mile area improvement 1C-CB-CW-059.
10	Construct a crosswalk across the PGBT WBFR just east of the track crossing. Also, consider adding a traffic signal here similar to the existing signal on the PGBT EBFR, with care taken to coordinate with the adjacent railroad crossing gates. A crosswalk west of the tracks that will be removed with the Silver Line construction currently has only pedestrian warning signs and ramps. These changes will provide safer access to the DART station for residents of apartments on the north side of the westbound frontage road. See half-mile area improvement 1C-CB-CW-045 for more information.
General	Many pedestrian ramps in the station area are missing detectable warning surfaces, which should be added.

Location:



Not for Construction

FIGURE 1C-1.1 **JULY 2020**

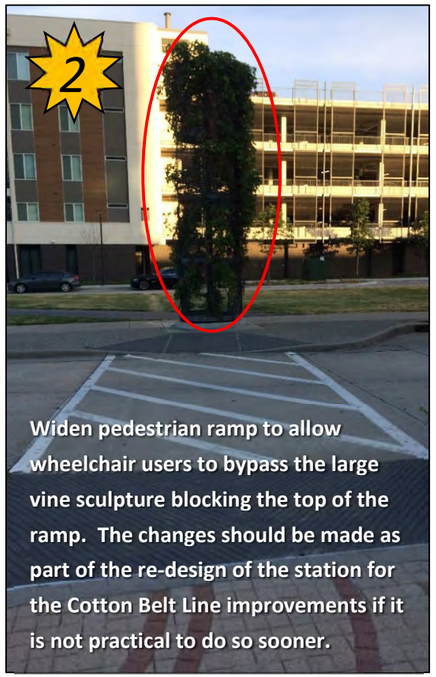
LEE ENGINEERING

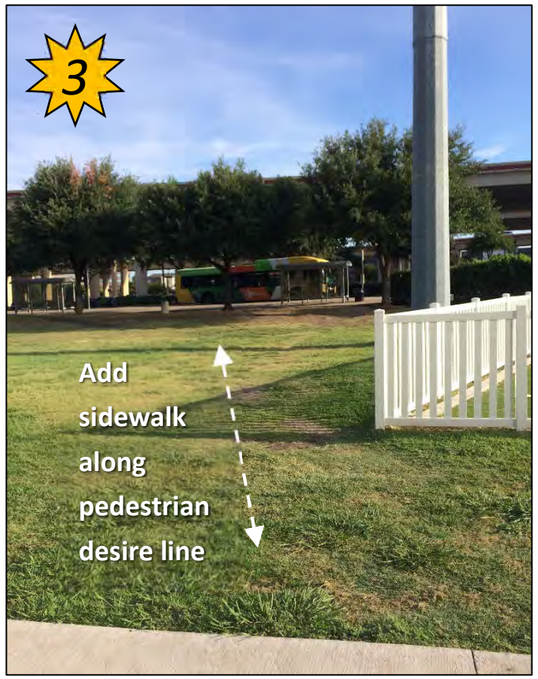
30 YEARS OF EXCELLENCE

CityLine/Bush Station Existing Conditions at Improvement Locations

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections





Not for Construction

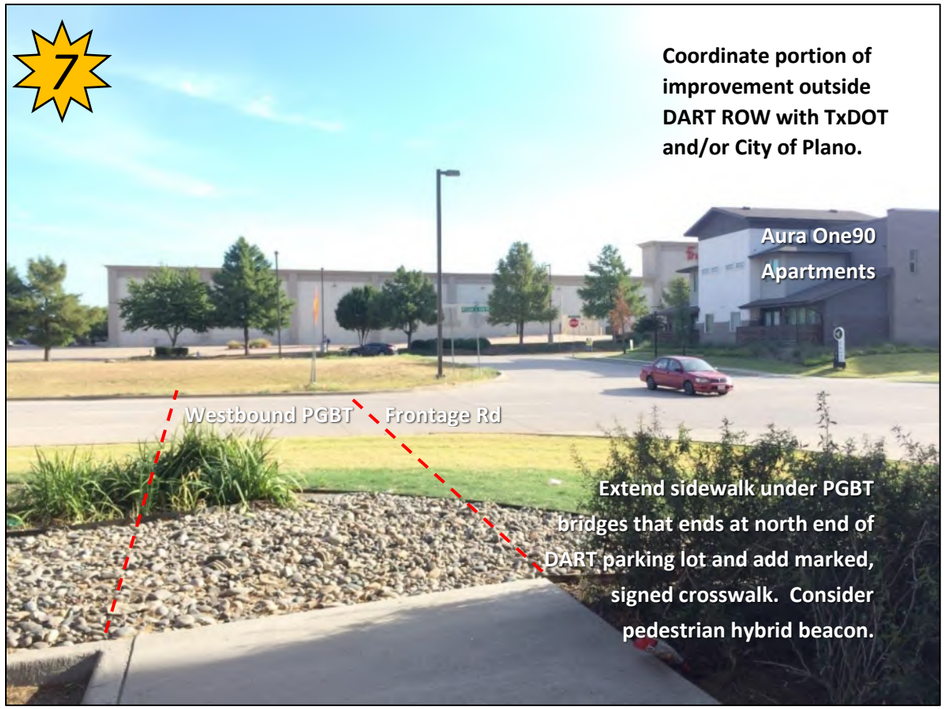
FIGURE 1C-1.2 **DECEMBER 2020**

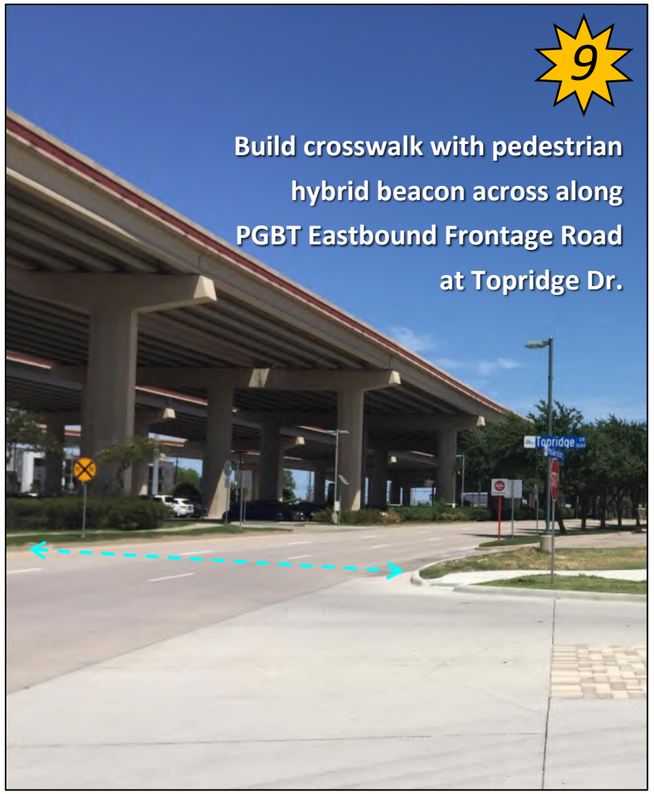
LEE ENGINEERING 30 YEARS OF EXCELLENCE

CityLine/Bush Station Existing Conditions at Improvement Locations

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections





Not for Construction

FIGURE 1C-1.3 **JULY 2020**

LEE ENGINEERING 30 YEARS OF EXCELLENCE

3.2 Half-Mile Area Recommendations

Figure 1A-2, Figure 1B-2, and Figure 1C-2 on pages 19, 20 and 22 identify recommended high-, medium- and low-priority improvements as separate construction packages for each station's half-mile area in Plano. These figures are collectively referred to as phasing maps. High-priority improvements should be considered for Phase 1 of construction at each station. As funding is available the medium and low-priority improvements should be implemented either with the Phase 1 improvements or as part of future phases.

The legend for each map includes a brief summary of opinions of probable construction cost for each phase and station, which are described in greater detail in Section 3.3.

For additional context, Appendix I contains detailed maps of the recommendations for each station's half-mile area, including existing, planned, and funded regional and local shared use paths, as well as existing, planned and funded on-street bicycle networks.

In each phasing map, existing sidewalks are shown in light blue. The density of individual parcels' population plus employment are shown in grayscale, with darker colors representing higher values.

Proposed sidewalk and crosswalk improvements are shown in multiple colors, according to the assigned priority: red for high-priority (Phase 1), orange for medium-priority (Phase 2), and light pink for low-priority (Phase 3). Gaps to remain are shown in dark pink. For more details about these categories, refer to Appendix F.

Each high- medium- and low-priority improvement, along with all gaps to remain, are indicated by the boxed number labels near each improvement location. The lower right corner of each phasing map includes a legend that describes the abbreviations in the improvement ID codes, which can be used to cross-reference the improvement matrices that appear in Appendix J.

For solid red, orange, or light pink lines, the recommended improvement for a sidewalk gap is either a new or repaired 5-foot wide sidewalk or a new 10-foot shared use path along the length shown. Repairs are noted in the matrix notes for each improvement in Appendix J, and assume full removal of damaged, existing sidewalk prior to replacement.

For crosswalk gaps, the type of improvement recommended is shown with numbered circles located near each crosswalk. The numbers in the circles correspond to the legend of possible pedestrian safety countermeasures appearing at the upper right of the figure. More details about these improvements can be found in Section 2.6, as well as in Appendix C, Appendix D, and Appendix J. Treatments recommended somewhere on the phasing maps have a red box around them in the legend for easier reference.

The "Half Mile Area Improvements Matrices" appearing in Appendix J for each station list for each improvement the owner, improvement type, location, length, notes, priority score, and (in the case of high priority improvements not built by others) the opinion of probable construction cost. Additional information useful for interpreting the tables in Appendix J may be found in Appendix I.

3.2.1 Parker Road Station (Half-Mile Area)

Figure 1A-2 shows the recommended improvements in the half-mile area around the Parker Road Station. Central Expy (U.S. 75), Parker Rd, Park Blvd, and K Ave are all arterials that provide barriers to multi-modal travel to and from the station. Due to a lack of collector streets east of the station, multi-modal travel to and from that direction is significantly more circuitous, though planned shared use paths will improve the situation.

Note that a portion of the half-mile radius for Parker Road Station to the south overlaps with the northern half-mile radius for the Downtown Plano Station. Improvements for the overlapping area were considered together with the Downtown Plano Station area, as discussed in the following section.

As noted in Section 3.1.1, a challenge for pedestrian and bicycle access to this station is the lack of direct connections to and from property to the east. Pedestrians are routinely observed jumping the low fence to reach the station platform from the bowling alley parking lot to the east.

A new local shared use path (1A-PR-VW-V5 in Figure 1A-2.1) is proposed extending east from the south end of the station platform along the north side of property owned by the City of Plano. At its intersection with K Ave, a pedestrian hybrid beacon (1A-PR-CW-26) would facilitate crossing six lanes of high-speed traffic. While a dedicated sidewalk alignment would not continue farther east for direct access to the apartments east of Dobie Dr due to existing businesses between K Ave and Dobie Dr here, many apartment residents would still likely be able to traverse the business parking areas on foot.

Other more direct connections to areas northeast and southeast of the station would also be provided by constructing the north-south Regional Veloweb shared use path on the west side of the station platform, parallel to the tracks, shown as improvements 1A-PR-VW-V2 and 1A-PR-VW-V3 in Figure 1A-2.2.

A pedestrian hybrid beacon would serve multi-modal users crossing Parker Rd to the north of the station, while a traffic signal would accomplish the same purpose for crossing Park Blvd to the south. The pedestrian hybrid beacon (PHB, also known as a HAWK beacon) has the advantage of stopping traffic only for the duration necessary for pedestrians to clear a driver's travel lane, rather than requiring a stop for the whole duration of the walk and flashing don't walk intervals.

Additional details about other improvements recommended in Figure 1A-2, as well as challenges associated with the recommended gaps to remain, are included in the expanded narrative and matrix notes for Parker Road Station that can be found in Appendix I and Appendix J.

3.2.2 Downtown Plano Station (Half-Mile Area)

Figure 1B-2 identifies the recommended improvements in the half-mile area around the Downtown Plano Station. Downtown Plano is pedestrian friendly, with on-street parking and lower speeds along 15th St south of the station promoting a friendlier crossing environment. However, some improvements can be made along 15th St, including new or improved crosswalks. The one-way couplet of K Ave and Municipal Ave also carries a higher speed and volume of traffic that presents somewhat of a barrier to the safety and level of comfort of pedestrian travel, as does 14th St two blocks south of the station, where transit-oriented development is occurring, with more expected in the future.

FTA DART Stations
Last Mile Connections
Parker Rd Station
November 2020

Figure 1A-2 Construction Packages

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Legend

- DART Rail Station
- Railroad Track

Sidewalk

- Existing Sidewalk/Crosswalk

Proposed Sidewalk/ Crosswalk by Priority [1]	Construction Cost Estimate
High	$2,305,200
Medium	$730,000
Low	$258,000
	$3,293,200 *(2020 $)*

- Built by Others
- Gap to Remain

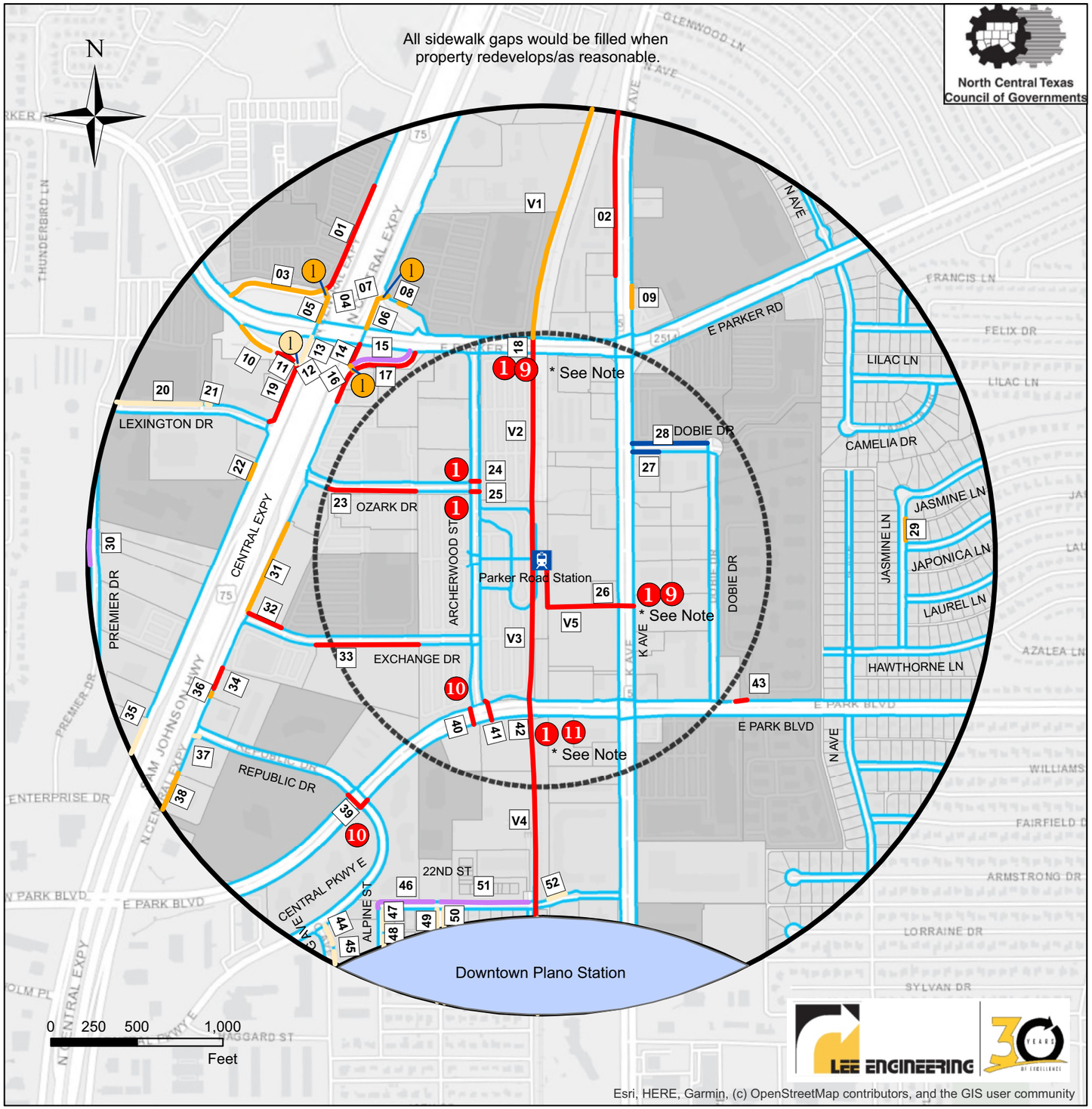
Buffers
- 0.5 Mile Buffer
- 0.25 Mile Buffer

Existing Residential and Employment Population (Number of People)

Ppl

- 0 - 234
- 235 - 1049
- 1050 - 2586
- 2587 - 5364
- 5365 - 10339

*Note: Need Contingent on Shared Use Path Construction



Possible Pedestrian Safety Countermeasures

Unsignalized Crosswalk Improvements

Hi	Md	Lo	Oth	
1	1	1	1	Crosswalk Signs, Markings & Lighting
2	2	2	2	Raised Crosswalk
3	3	3	3	Advance "Yield Here" Sign
4	4	4	4	In-Street Pedestrian Crossing
5	5	5	5	Curb Extension
6	6	6	6	Pedestrian Refuge Island
7	7	7	7	Rectangular Rapid Flashing Beacon
8	8	8	8	Road Diet
9	9	9	9	Pedestrian Hybrid Beacon

Signalized Crosswalk Improvements

10	10	10	10	Add Marked Crosswalks & Provide Countdown, Accessible Pedestrian Signals
11	11	11	11	Traffic Signal

Improvement Code Legend (See Matrix)
1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
SW ← Sidewalk (or CW for Crosswalk)
01 ← Improvement Number (Matches [1] on Map)

FTA DART Stations
Last Mile Connections
Downtown
Plano Station
November 2020

Figure 1B-2 Construction Packages

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Legend

- DART Rail Station
- Railroad Track

Sidewalk

- Existing Sidewalk/Crosswalk

Proposed Sidewalk/ Crosswalk by Priority [1]	Construction Cost Estimate
High	$1,927,100
Medium	$2,595,500
Low	$2,011,300
	$6,533,900 *(2020 $)*

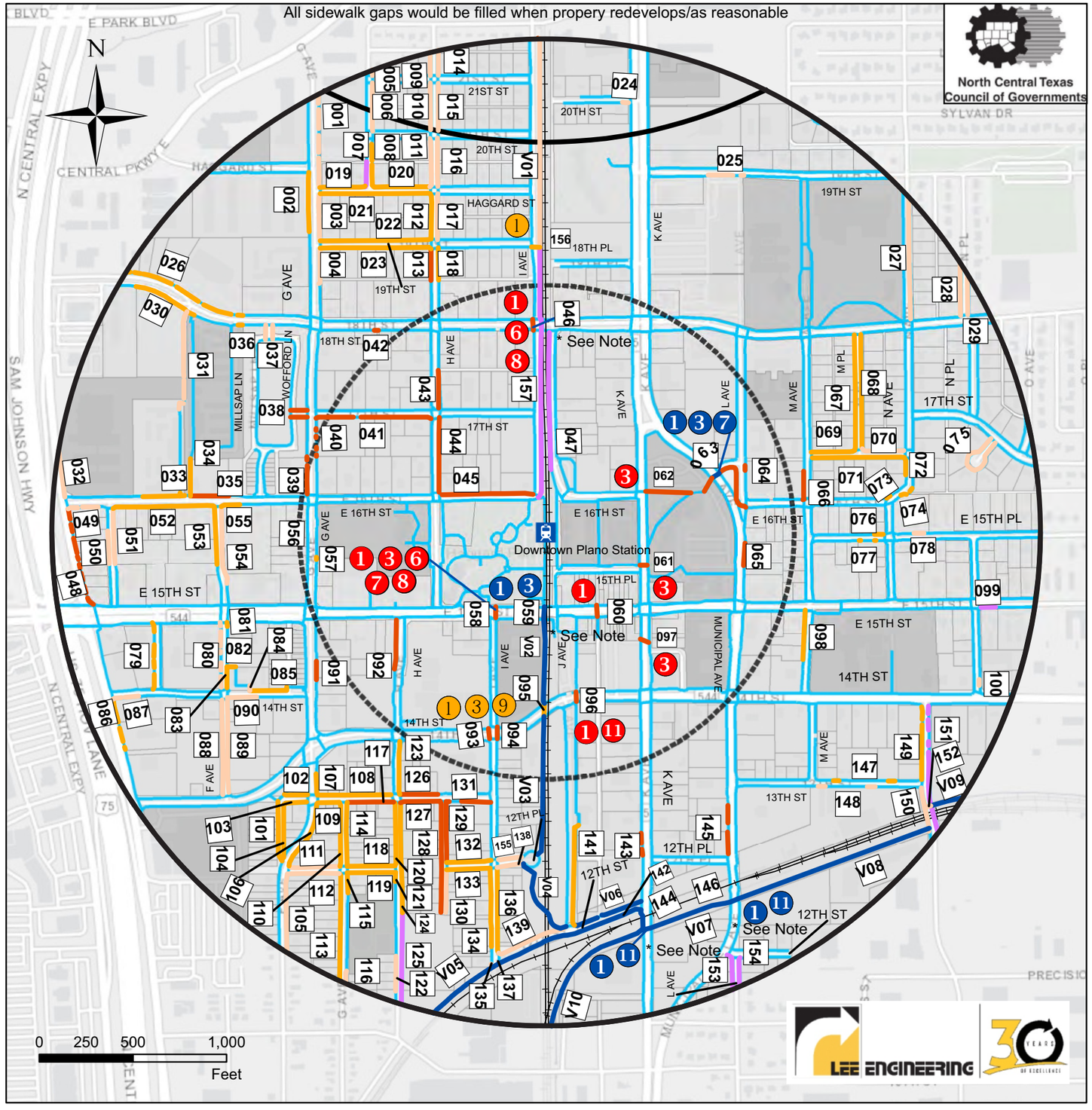
- Built by Others
- Gap to Remain

Buffers
- 0.5 Mile Buffer
- 0.25 Mile Buffer

Existing Residential and Employment Population (Number of People)

Ppl
- 0 - 234
- 235 - 1049
- 1050 - 2586
- 2587 - 5364
- 5365 - 10339

*Note: Need Contingent on Veloweb Construction



Possible Pedestrian Safety Countermeasures

Unsignalized Crosswalk Improvements

Hi	Md	Lo	Oth	
1	1	1	1	Crosswalk Signs, Markings & Lighting
2	2	2	2	Raised Crosswalk
3	3	3	3	Advance "Yield Here" Sign
4	4	4	4	In-Street Pedestrian Crossing
5	5	5	5	Curb Extension
6	6	6	6	Pedestrian Refuge Island
7	7	7	7	Rectangular Rapid Flashing Beacon
8	8	8	8	Road Diet
9	9	9	9	Pedestrian Hybrid Beacon

Signalized Crosswalk Improvements

10	10	10	10	Add Marked Crosswalks & Provide Countdown, Accessible Pedestrian Signals
11	11	11	11	Traffic Signal

Improvement Code Legend (See Matrix)
1B-DP-SW-01
1B ← Station Number
DP ← Station Abbreviation
SW ← Sidewalk (or CW for Crosswalk)
01 ← Improvement Number (Matches [1] on Map)

Recommended improvements include new or improved crosswalks across 15th St at I Ave, at the proposed Regional Veloweb shared use path parallel to the DART tracks, and mid-block between J Ave and K Ave. Similarly, crossings across K Ave at 16th St, 15th Place and south of 15th St can provide improved safety.

A common need at many of these locations is advance "Yield Here to Pedestrians" signing and yield line striping (Item #3 in the "Possible Pedestrian Safety Countermeasures" legend).

City of Plano CIP project 6993 will construct improvement 1B-DP-CW-59 immediately south of the station where pedestrian ramps and a median cut-through are missing for a significant demand of bike and pedestrian travel between the station and apartments immediately to the southwest.

Proposed improvements 1B-DP-SW-62, 1B-DP-SW-63, 1B-DP-CW-63, and 1B-DP-RP-64, which cross the Plano Municipal Center and K Ave to the east, would connect apartment complexes and single-family residential neighborhoods to the northeast more visibly and directly to the station.

Crosswalks across 14th St at I Ave, at the future Regional Veloweb alignment described in the previous paragraph, and/or at J Ave are also recommended for better multi-modal access. A PHB is recommended at I Ave (#93 and #94), while a pedestrian traffic signal is recommended at the Veloweb crossing in close proximity to J Ave (1B-DP-CW-95 and 1B-DP-CW-96).

In the southern part of the study area, the existing rail tracks parallel to 12th St will be the location of the future 12th Street Station on DART's Silver Line Commuter Rail Project. Many of the sidewalk and shared use path connections in and around the future 12th Street Station platform will be built or reconstructed in the near future as part of the Silver Line project.

Additional details about other improvements recommended in Figure 1B-2, as well as challenges associated with the recommended gaps to remain, are included in the expanded narrative and matrix notes for Downtown Plano Station that can be found in Appendix I and Appendix J.

3.2.3 CityLine Bush Station (Half-Mile Area)

Figure 1C-2 on page 22 identifies the recommended improvements in the half-mile area around the CityLine Bush Station. Central Expy (U.S. 75), the President George Bush Tpk (SH 190) and K Ave/N Plano Rd all pose boundaries to multi-modal access to the station. While the station is located just south of the Richardson City line formed by the PGBT, new transit-oriented residential development has occurred north of the PGBT in Plano, with other undeveloped parcels expected to bring more such development. The current configuration of the Park & Ride lots located below the PGBT bridge structures is oriented primarily to serve DART riders driving to the station, with fewer accomodations for pedestrian and bicycle trips through the large parking lots.

Several sidewalks and connecting crosswalks should be built through and around the Park & Ride lots below the PGBT bridges. The high posted speed limits along the PGBT frontage roads create the need for high-visibility crosswalks. Therefore, pedestrian hybrid beacons are recommended at the Crawford Rd/Topridge Dr crossings of the PGBT frontage roads (1C-CB-CW-42, 1C-CB-CW-43, and 1C-CB-CW-59). Also, a pedestrian traffic signal is recommended for the crossing of the PGBT westbound frontage road just east of the DART tracks (1C-CB-CW-45). The existing crosswalk across the WBFR west of the tracks will be removed as part of the Silver Line Construction, which is still under design but will reconfigure other existing sidewalks and crosswalks in and around the station.

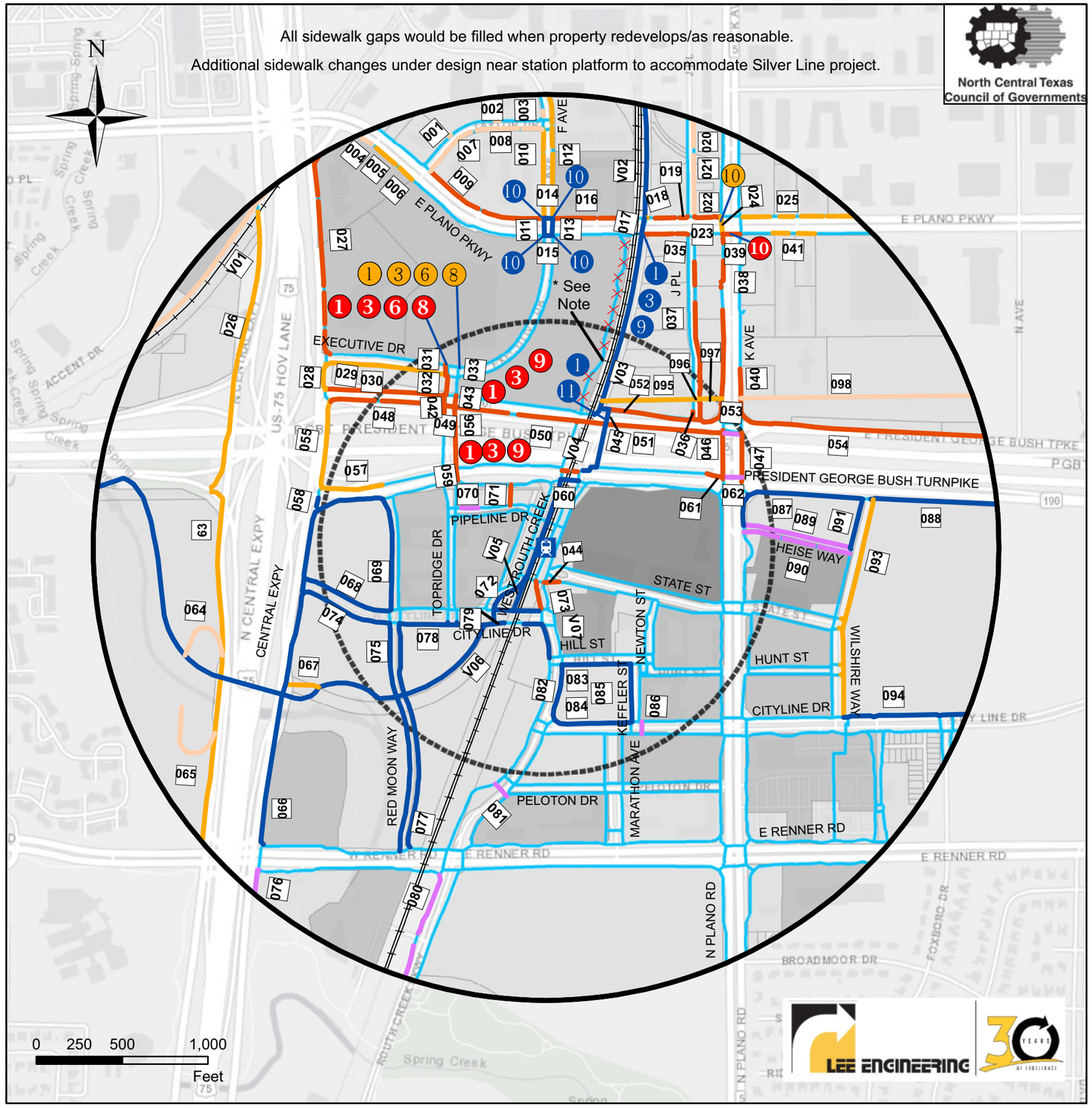
Three existing signalized intersections should receive pedestrian access improvements. Marked crosswalks and countdown, accessible pedestrian signals should be added at the intersections of Plano Pkwy with F Ave/Executive Dr and with K Ave. Though pedestrian indications are already present at the K Ave/N Plano Rd intersection with the PGBT frontage roads, sidewalks (1C-CB-SW-046, 1C-CB-SW-047, and 1C-CB-SW-061) need to be added so that pedestrian travel through these intersections can occur during all weather and for DART riders of different abilities.

Additional details about other improvements recommended in Figure 1C-2, as well as challenges associated with the recommended gaps to remain, are included in the expanded narrative and matrix notes for CityLine Bush Station that can be found in Appendix I and Appendix J.

FTA DART Stations
Last Mile Connections
City Line Bush Station
November 2020

Figure 1C-2 Construction Packages

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections



Legend

- DART Rail Station
- Railroad Track

Sidewalk

- Existing Sidewalk/Crosswalk

Proposed Sidewalk/ Crosswalk by Priority [1]	Plano Construction Cost Estimate
High	$1,421,700
Medium	$1,219,400
Low	$683,500
	$3,394,200 (2020 $)

- Built by Others
- Gap to Remain

Buffers
- 0.5 Mile Buffer
- 0.25 Mile Buffer

Existing Residential and Employment Population (Number of People)

Ppl
- 0 - 234
- 235 - 1049
- 1050 - 2586
- 2587 - 5364
- 5365 - 10339

*Note: Sidewalk to be removed to make way for DART Silver Line tracks.

Possible Pedestrian Safety Countermeasures

Unsignalized Crosswalk Improvements

Hi	Md	Lo	Oth	
1	1	1	1	Crosswalk Signs, Markings & Lighting
2	2	2	2	Raised Crosswalk
3	3	3	3	Advance "Yield Here" Sign
4	4	4	4	In-Street Pedestrian Crossing
5	5	5	5	Curb Extension
6	6	6	6	Pedestrian Refuge Island
7	7	7	7	Rectangular Rapid Flashing Beacon
8	8	8	8	Road Diet
9	9	9	9	Pedestrian Hybrid Beacon

Signalized Crosswalk Improvements

10	10	10	10	Add Marked Crosswalks & Provide Countdown, Accessible Pedestrian Signals
11	11	11	11	Traffic Signal

Improvement Code Legend (See Matrix)

1C-CB-SW-01

- 1C ← Station Number
- CB ← Station Abbreviation
- SW ← Sidewalk (or CW for Crosswalk)
- 01 ← Improvement Number (Matches [1] on Map)

3.3 Half-Mile Area Opinions of Probable Construction Cost

In addition to the Opinions of Probable Construction Cost (OPCC's) developed for the on-site improvements at DART Stations in Section 3.1, OPCC's were developed for nearly 1,100 separate high-priority improvements totalling nearly 58 linear miles in the half-mile areas surrounding each of the 28 DART stations within the study area.

OPCC's were developed in the half-mile areas for each high-priority improvement that was ***not*** assumed by City staff to be built by others (as part of another project by a developer, the City, TxDOT, etc.) in the near future. Aggregate OPCC's were developed for low- and medium-priority improvements by extrapolating average costs from the high-priority improvements.

Appendix G details the assumptions that were made in order to provide high-quality, yet preliminary OPCC's. Detailed unit price and quantity estimates for the individual high-priority Phase 1 half-mile area improvements are listed in Appendix K which supplement the OPCC's for the proposed DART property improvements in Plano provided in Appendix H. A summary of how overall cost estimates for low- and medium-priority Phase 2 and Phase 3 improvements were derived is also included in Appendix K.

The estimated cost of all projects in Plano is summarized in Table 2. The cost of improvements located within Richardson around the CityLine Bush Station is excluded from the totals listed in Plano. For convenience, grand total costs are provided in both 2020 dollars and 2025 dollars, assuming for 2025 a 4% annual escalation rate for all three phases. Costs presented in all other figures, tables, and appendices of this report reflect 2020 dollars only.

Table 2: Summary Opinion of Probable Construction Cost for Improvements in Plano

Station No.	Station Area	DART Station Property	Half-Mile Area				
			High Priority (Phase 1)	Medium Priority (Phase 2)	Low Priority (Phase 3)	*Grand Totals (2020)*	*Grand Totals (2025)*
1A	Parker Road	$361,650	$2,305,200	$730,000	$258,000	*$3,654,850*	*$4,446,700*
1B	Downtown Plano	$12,350	$1,927,100	$2,595,500	$2,011,300	*$6,546,250*	*$7,964,600*
1C	CityLine Bush	$69,600	$1,421,700	$1,219,400	$683,500	*$3,394,200*	*$4,129,600*
City of Plano Totals		*$443,600*	*$5,654,000*	*$4,544,900*	*$2,952,800*	*$13,595,300*	*$16,540,900*

As shown in Table 2, the 2020 total estimate for all improvements in Plano is about $13.6 million. High-priority Phase 1 multi-modal access improvements within the half-mile station areas inside Plano City limits are estimated to cost about $5.7 million. Of this total, about $444,000 would be the responsibility of DART on its station properties, including a portion of improvements near the station boundaries, where financial responsibility is assumed to be shared between DART and the City. Near the CityLine Bush Station, improvements crossing the Plano/Richardson City line were assumed to have shared financial responsibility between the two cities, TxDOT and DART.

Medium- and low- priority costs for Phases 2 and 3 were estimated by developing more generalized unit costs for five types of improvements, based on all high-priority improvements City-wide. Tables 3-5 on page 24 illustrate this procedure.

The first row in each table lists the total linear feet of high-priority sidewalk, sidewalk repair, and Veloweb/shared use path construction City-wide, along with the respective cost totals. It also lists the overall count and cost of crosswalks, classified as simple crosswalks (implemented with signs and markings ony) or other crosswalks (which include beacons, islands, or signals). The bottom two rows of each table show how the same unit rates per linear foot or per each crosswalk were used to extrapolate overall cost estimates for the medium- and low-priority improvements without estimating costs for individual locations in those categories.

For reference, the unit price of 5 ft-wide sidewalk alone was assumed at $35 per linear foot. The all-inclusive price per linear foot of sidewalk improvements (including items such as pedestrian ramps, utility relocation, retaining walls, driveway reconstruction, contingencies, etc.) was calculated for each of the high-priority improvements, ranging between a low of about $44/LF to a high of about $690/LF. Lower unit costs were associated with simple sidewalk improvements without obstacles, while higher unit costs were associated with higher densities of challenging conditions, especially along short segments.

Table 3: Opinion of Probable Construction Cost for Parker Road Station Half-Mile Area

Phase/ Priority	Sidewalks			Sidewalk Repairs			Veloweb/ Shared Use Paths			Simple Crosswalks			Other Crosswalks (with Beacon, Island or Signal)			
	Lin. Ft	Cost	~$/LF	Lin. Ft	Cost	~$/LF	Lin. Ft	Cost	~$/LF	#	Cost	~$/EA	#	Cost	~$/EA	Total Cost
High Priority (All Plano)	21,190	$ 3,215,000	$ 152	47	$ 11,600	$ 247	3,895	$ 946,400	$ 243	6	$ 51,800	$ 8,634	16	$ 1,573,600	$ 98,350	***
Phase 1/ High*	4,405	$ 531,000	-	12	$ 900	-	3,895	$ 946,400	-	2	$ 15,800	-	6	$ 811,100	-	$ 2,305,200
Phase 2/ Medium**	2,320	$ 352,700	$ 152	15	$ 3,800	$ 247	1,430	$ 347,500	$ 243	3	$ 26,000	$ 8,634	-	-	$ 98,350	$ 730,000
Phase 3/ Low**	1,640	$ 249,300	$ 152	-	-	$ 247	-	-	$ 243	1	$8,700	$ 8,634	-	-	$ 98,350	$ 258,000
	8,365	$ 1,133,000		27	$ 4,700		5,325	$ 1,293,900		6	$50,500		6	$ 811,100		$ 3,293,200

** High priority cost opinions are based on field visits and bid item breakdowns, but without the benefit of survey, subsurface utility investigation, or other engineering information typically available for semi-final design.*

*** Medium- and low-priority cost opinions are not based on individual improvements, but instead extrapolated from cost/linear foot calculations for high-priority improvements; actual costs may vary significantly, especially for crosswalk improvements.*

**** Costs for all Plano include costs attributed to DART and others in calculating average costs per unit length or crosswalk, and therefore do not match the total value shown in Table 2.*

Table 4: Opinion of Probable Construction Cost for Downtown Plano Station Half-Mile Area

Phase/ Priority	Sidewalks			Sidewalk Repairs			Veloweb/ Shared Use Paths			Simple Crosswalks			Other Crosswalks (with Beacon, Island or Signal)			
	Lin. Ft	Cost	~$/LF	Lin. Ft	Cost	~$/LF	Lin. Ft	Cost	~$/LF	#	Cost	~$/EA	#	Cost	~$/EA	Total Cost
High Priority (All Plano)	21,190	$ 3,215,000	$ 152	47	$ 11,600	$ 247	3,895	$ 946,400	$ 243	6	$ 51,800	$ 8,634	16	$ 1,573,600	$ 98,350	***
Phase 1/ High*	6,200	$ 1,377,800	-	35	$ 10,700	-	-	-	-	3	$ 30,800	-	5	$ 507,800	-	$ 1,927,100
Phase 2/ Medium**	16,265	$ 2,472,300	$ 152	65	$ 16,100	$ 247	-	-	$ 243	1	$ 8,700	$ 8,634	1	$ 98,400	$ 98,350	$ 2,595,500
Phase 3/ Low**	10,720	$ 1,629,500	$ 152	45	$ 11,200	$ 247	1,120	$ 272,200	$ 243	-	-	$ 8,634	1	$ 98,400	$ 98,350	$ 2,011,300
	33,185	$ 5,479,600		145	$ 38,000		1,120	$ 272,200		4	$ 39,500		7	$ 704,600		$ 6,533,900

** High priority cost opinions are based on field visits and bid item breakdowns, but without the benefit of survey, subsurface utility investigation, or other engineering information typically available for semi-final design.*

*** Medium- and low-priority cost opinions are not based on individual improvements, but instead extrapolated from cost/linear foot calculations for high-priority improvements; actual costs may vary significantly, especially for crosswalk improvements.*

**** Costs for all Plano include costs attributed to DART and others in calculating average costs per unit length or crosswalk, and therefore do not match the total value shown in Table 2.*

Table 5: Opinion of Probable Construction Cost for CityLine Bush Station Half-Mile Area (Plano Only/Excludes Richardson)

Phase/ Priority	Sidewalks			Sidewalk Repairs			Veloweb/ Shared Use Paths			Simple Crosswalks			Other Crosswalks (with Beacon, Island or Signal)			
	Lin. Ft	Cost	~$/LF	Lin. Ft	Cost	~$/LF	Lin. Ft	Cost	~$/LF	#	Cost	~$/EA	#	Cost	~$/EA	Total Cost
High Priority (All Plano)	21,190	$ 3,215,000	$ 152	47	$ 11,600	$ 247	3,895	$ 946,400	$ 243	6	$ 51,800	$ 8,634	16	$ 1,573,600	$ 98,350	***
Phase 1/ High*	10,585	$ 1,306,200	-	-	-	-	-	-	-	1	$ 5,200	-	5	$ 254,700	-	***
Phase 2/ Medium**	5,225	$ 794,200	$ 152	-	-	$ 247	535	$ 130,100	$ 243	-	-	$ 8,634	3	$ 295,100	$ 98,350	$ 1,219,400
Phase 3/ Low**	2,640	$ 401,300	$ 152	55	$ 13,600	$ 247	1,105	$ 268,600	$ 243	-	-	$ 8,634	-	-	$ 98,350	$ 683,500
	18,450	$ 2,501,700		55	$ 13,600		1,640	$ 398,700		1	$5,200		8	$ 549,800		***

** High priority cost opinions are based on field visits and bid item breakdowns, but without the benefit of survey, subsurface utility investigation, or other engineering information typically available for semi-final design.*

*** Medium- and low-priority cost opinions are not based on individual improvements, but instead extrapolated from cost/linear foot calculations for high-priority improvements; actual costs may vary significantly, especially for crosswalk improvements.*

**** Costs for all Plano and CityLine Bush Station include costs attributed to DART and others in calculating average costs per unit length or crosswalk, and therefore do not match the total value shown in Table 2.*

APPENDICES

APPENDIX A: Field Work Dates

APPENDIX B: Data Collection Maps & Forms

- Parker Road Station
- Downtown Plano Station
- CityLine Bush Station

APPENDIX C: Crosswalk Improvement Evaluation Details

APPENDIX D: Crosswalk Improvement Selection Tables

- Parker Road Station
- Downtown Plano Station
- CityLine Bush Station

APPENDIX E: Half-Mile Area Improvement Prioritization – Initial Trial Methodology Details

APPENDIX F: Half-Mile Area Improvement Prioritization – Final Methodology Details

APPENDIX G: Cost Estimating Details

APPENDIX H: Estimated Quantities & Opinions of Probable Construction Cost – Station Property Improvements

- Parker Road Station
- Downtown Plano Station
- CityLine Bush Station

APPENDIX I: Half-Mile Area Recommendation Details & Detailed Improvement Mapping

- Parker Road Station
- Downtown Plano Station
- CityLine Bush Station

APPENDIX J: Half-Mile Improvement Matrices

- Parker Road Station
- Downtown Plano Station
- CityLine Bush Station

APPENDIX K: Estimated Quantitiies & Opinions of Probable Construction Cost – Half-Mile Improvements

- Parker Road Station
- Downtown Plano Station
- CityLine Bush Station

APPENDIX A: Field Work Dates

DART Red & Blue Line Last Mile Connections Project

Project Schematic / Field Work Schedule

City	Red Line	Blue Line		
Plano	1A Parker Road July 3 & 25, 2018			
	1B Downtown Plano July 31, 2018		***Group 1***	
	1C City Line/Bush Aug. 7, 2018			
Richardson	2A Galatyn Park Aug. 21, 2018			
	2B Arapaho Center Aug. 16, 2018		***Group 2***	
	2C Spring Valley Aug. 28, 2018			
Garland		3A **Downtown Garland*** Sept. 13 & 19, 2018		
		3B **Forest/Jupiter*** Sept. 20, 2018		
Dallas	3C LBJ/Central Sept. 20, 2018		***Group 3***	
	3D Forest Lane Sept. 27, 2018			
	4A Walnut Hill Oct. 4, 2018			
	4B Park Lane Oct. 11, 2018	4E LBJ/Skillman Oct. 30, 2018	***Group 4***	
	4C **Lovers Lane*** Oct. 22, 2018	4F White Rock Oct. 30, 2018		
	4D Mockingbird Oct. 22, 2018			
	8A Cityplace Nov. 29 & Dec. 5 & 11, 2018			
	8B Convention Center Dec. 18, 2018		***Group 8***	
	8C Cedars Jan. 8 & 9, 2019			
	5A 8th & Corinth Nov. 6, 2018		***Group 5***	
	5B **Dallas Zoo*** Nov. 6, 2018	5C Morrell Nov. 13, 2018		
	6A Tyler Vernon Nov. 13, 2018	7A Illinois Nov. 27 & Dec. 5, 2018		
	6B Hampton Nov. 15, 2018	7B Kiest Nov. 27, 2018		
	6C Westmoreland Nov. 15, 2018	7C VA Medical Center Nov. 29, 2018		
	Group 6	***Group 7***		

Dates listed are dates when field work was conducted at each station property and surrounding 1/2 mile radius.

Station Group Identification

*** Station with high priority improvements for 15% design**

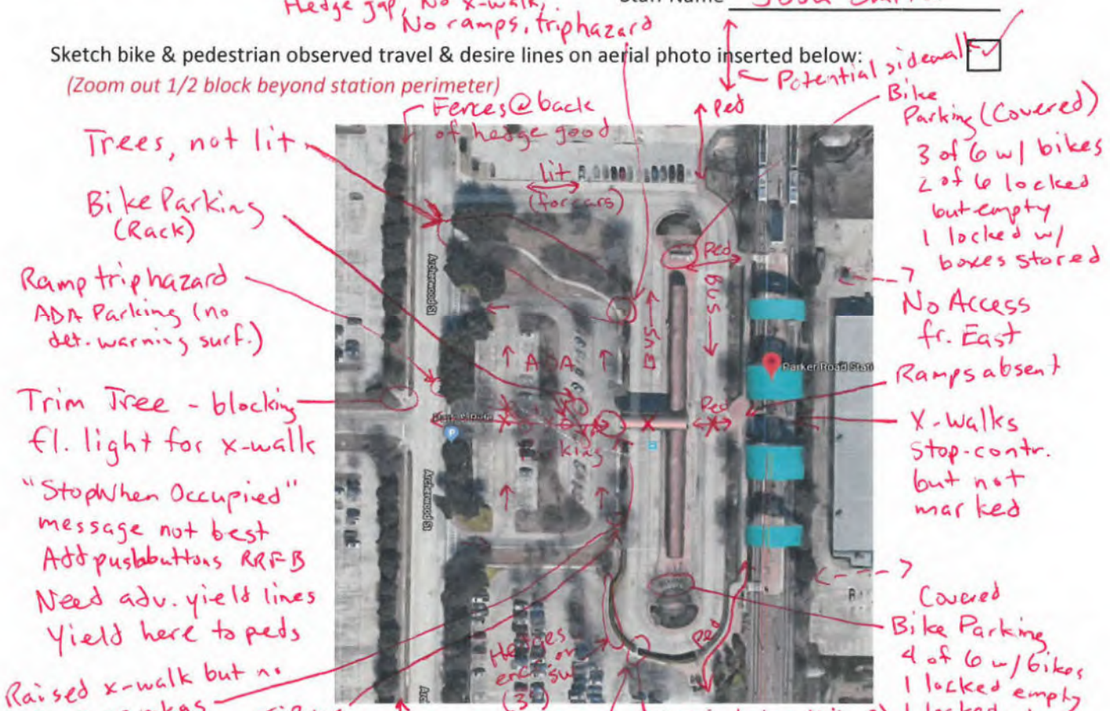
APPENDIX B: Data Collection Maps & Forms

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Stations

Date 7/25/18
Station Parker Rd
Staff Name Josh Smith

Hedge gap, No x-walk, No ramps, trip hazard

Sketch bike & pedestrian observed travel & desire lines on aerial photo inserted below:
(Zoom out 1/2 block beyond station perimeter)



Are any desire lines missing a marked crossing location on a perimeter street, especially if mid-block? *(If Yes, note on sketch and add line with "New" link ID on Crossings Checklist)* — Y N

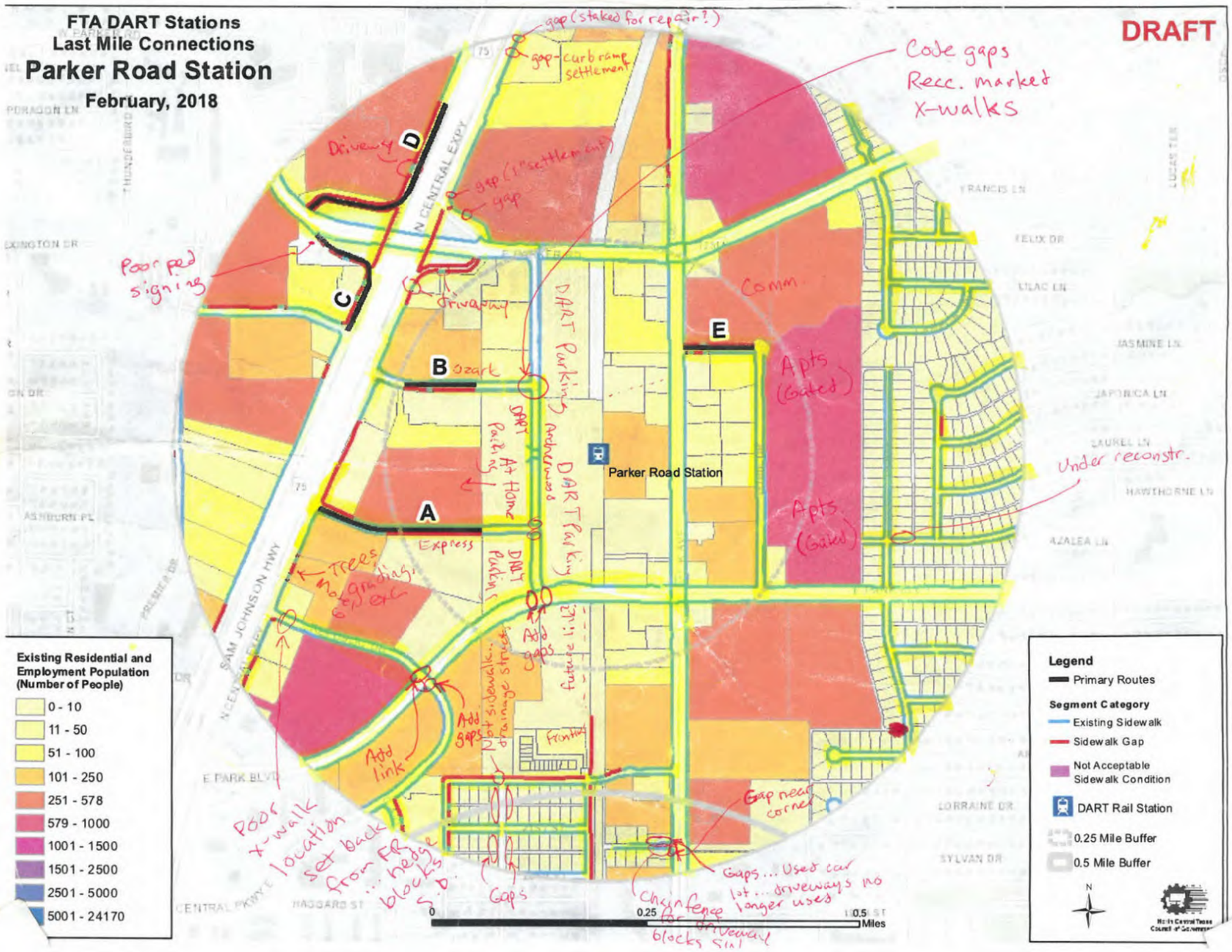
Note bike parking locations (covered vs. rack vs. bikeshare) — ✓
Do any travel routes differ significantly from linear desire lines? To/from east — (Y) N
Note car & bus circulation patterns & conflict points — ✓
Bike and ped desire lines continuously lit? (Note where if not). — Y (N)
Trip hazards? — ✓
Landscaping barriers? Mostly appropriate — ✓
Fences? — ✓
Absent ramps? — ✓
Bike/Pedestrian sight distance problems? — ✓
Review questions (Post Construction Column) from p. 6-7 of Ped RSA Checklist
Other Notes:

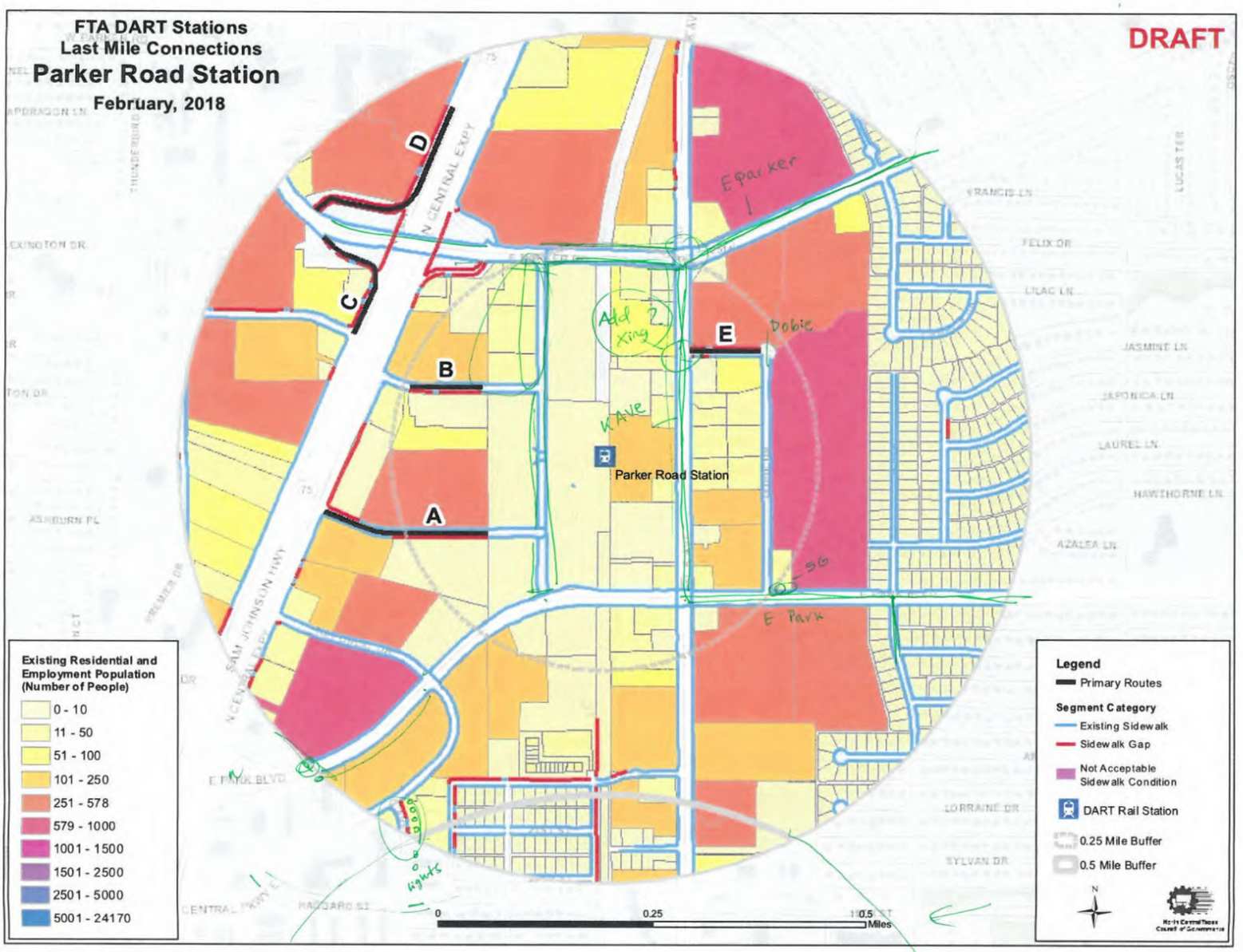
Kiss & Ride ped path lit for cars but trees may obstruct
Trim hedges at gaps (SD)

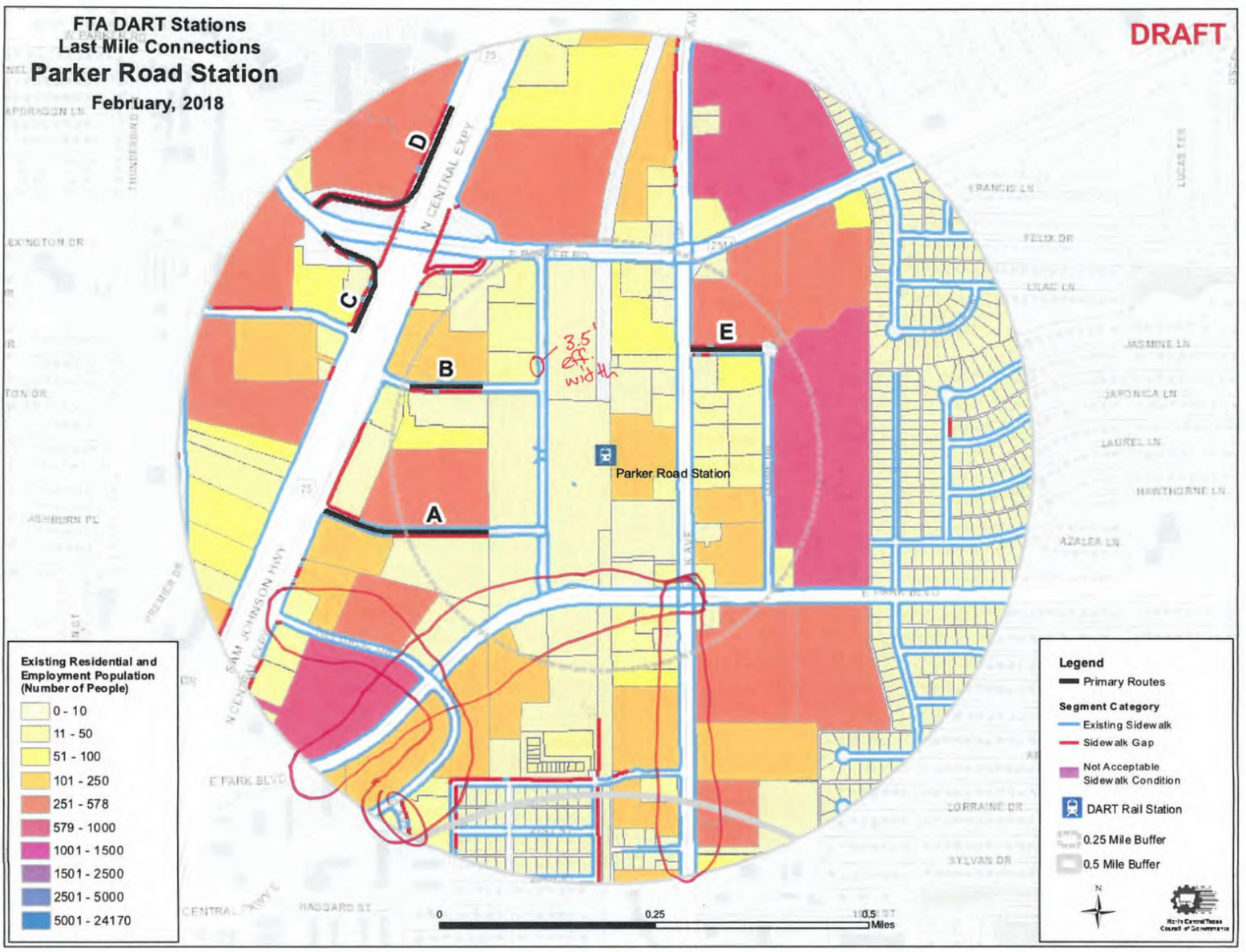
LEE ENGINEERING

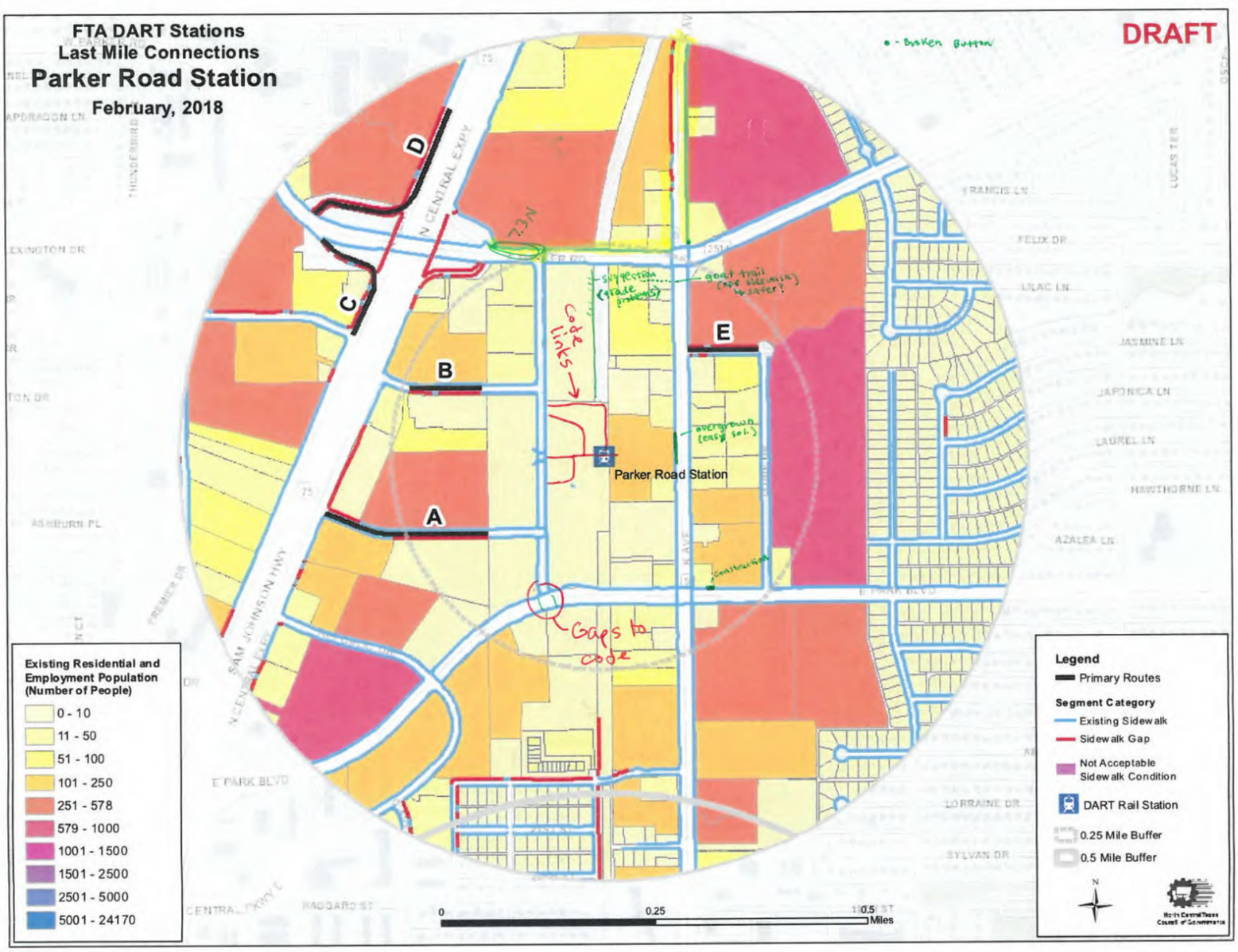
C. Parking Areas/Adjacent Developments

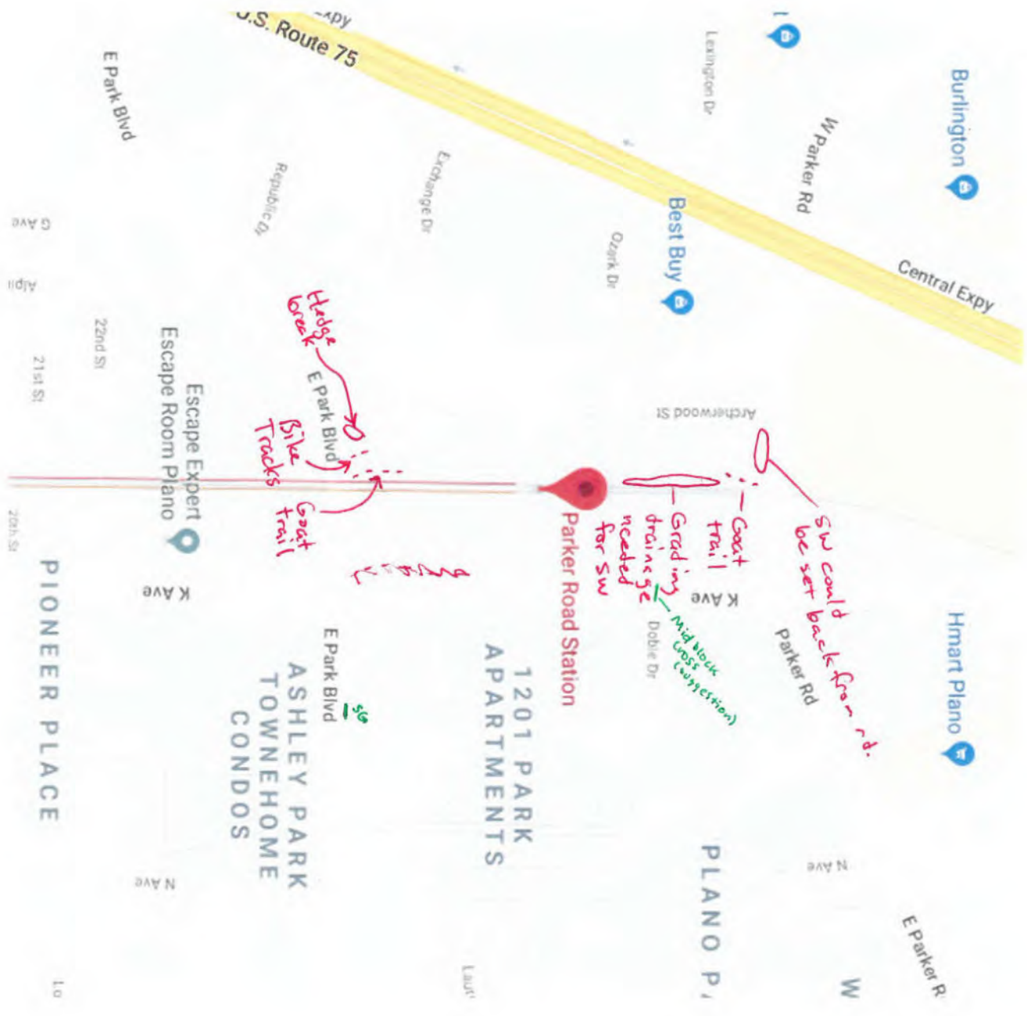
Master Prompt		Detailed Prompt	RSA Stages: planning	design	construction	post-construction
C.1 Presence, Design, and Placement	C.1.1	Do sidewalks/paths connect the street and adjacent land uses? To W, yes, to E no.	✓	✓	✓	✓
	C.1.2	Are the sidewalks/paths designed appropriately? Mostly		✓	✓	✓
	C.1.3	Are buildings entrances located and designed to be obvious and easily accessible to pedestrians?	✓	✓	✓	✓
C.2 Quality, Condition, and Obstructions		See prompts in Section **A** for potential issues on obstructions and protruding opbjects that apply to sidewalks and walkways at parking areas/adjacent developments				
		See prompts in Section **A** for potential issues on surface conditions that apply to sidewalks and walkways at parking areas/adjacent developments				
	C.2.1	Do parked vehicles obstruct pedestrian paths?				✓
C.3 Continuity and Connectivity	C.3.1	Are pedestrian facilities continuous? Do they provide adequate connections for pedestrian traffic?	✓	✓	✓	✓
	C.3.2	Are transitions of pedestrian facilities between developments/projects adequate?		✓	✓	✓
C.4 Lighting		See prompts in Section **A and B** for potential issues on lighting that apply to sidewalks and walkways at parking areas/adjacent developments				
C.5 Visibility	C.5.1	Are visibility and sight distance adequate?	✓	✓	✓	✓
C.6 Access Management	C.6.1	Are travel paths for pedestrians and other vehicle modes clearly delineated at access openings?	✓	✓	✓	✓
	C.6.2	Do drivers look for and yield to pedestrian when turning into and out of driveways?			✓	✓
C.7 Traffic Characteristics	C.7.1	Does pedestrian or driver behavior increase the risk of a pedestrian collision?				✓
	C.7.2	Are buses, cars, bicycles, and pedestrians separated on the site and provided with their own designated areas for travel?	✓	✓	✓	✓
C.8 Signs and Pavement Markings	C.8.1	Are travel paths and crossing points for pedestrians properly signed and/or marked?		✓	✓	✓


FTA DART Stations
Last Mile Connections
Parker Road Station
February, 2018
DRAFT
gap (staked for repair?)
gap - curb ramp settlement
Code gaps
Recc. market
X-walks
Driveway
gap (1" settlement)
gap
N CENTRAL EXPY
Poor Red signing
driveway
Comm
DART Parking
Ozark
Apts (Gated)
DART Parking
Parker Road Station
Under reconstr.
At Home
DART Parking
Express
DALT Parking
Apts (Gated)
Trees, Mowing, etc
SAM JOHNSON HWY
Add gaps
Add gaps
Add link
Poor X-walk location set back from ... hedge blocks S.D.
Gaps
Gap near corner
Gaps... Used car lot... driveways no longer used
Chain fence
blocks S.D.
E PARK BLVD
LORRAINE DR
SYLVAN DR
CENTRAL PKWY
HAGGARD ST
0
0.25
0.5 Miles
Existing Residential and Employment Population (Number of People)
0 - 10
11 - 50
51 - 100
101 - 250
251 - 578
579 - 1000
1001 - 1500
1501 - 2500
2501 - 5000
5001 - 24170
Legend
Primary Routes
Segment Category
Existing Sidewalk
Sidewalk Gap
Not Acceptable Sidewalk Condition
DART Rail Station
0.25 Mile Buffer
0.5 Mile Buffer
N
North Central Texas Council of Governments


FTA DART Stations
Last Mile Connections
Parker Road Station
February, 2018
DRAFT
N CENTRAL EXPY
E Parker
Add 2 Xing
Dobie
Parker Road Station
Kaye
SAM JOHNSON HWY
56
E Park
E PARK BLVD
LORRAINE DR
SYLVAN DR
CENTRAL PKWY
HAGGARD ST
0
0.25
0.5 Miles
Existing Residential and Employment Population (Number of People)
0 - 10
11 - 50
51 - 100
101 - 250
251 - 578
579 - 1000
1001 - 1500
1501 - 2500
2501 - 5000
5001 - 24170
Legend
Primary Routes
Segment Category
Existing Sidewalk
Sidewalk Gap
Not Acceptable Sidewalk Condition
DART Rail Station
0.25 Mile Buffer
0.5 Mile Buffer
N
North Central Texas Council of Governments


FTA DART Stations
Last Mile Connections
Parker Road Station
February, 2018
DRAFT
A
B
C
D
E
3.5' sidewalk width
Parker Road Station
N CENTRAL EXPY
SAM JOHNSON HWY
E PARK BLVD
Existing Residential and Employment Population (Number of People)
0 - 10
11 - 50
51 - 100
101 - 250
251 - 578
579 - 1000
1001 - 1500
1501 - 2500
2501 - 5000
5001 - 24170
Legend
Primary Routes
Segment Category
Existing Sidewalk
Sidewalk Gap
Not Acceptable Sidewalk Condition
DART Rail Station
0.25 Mile Buffer
0.5 Mile Buffer
0
0.25
0.5
Miles


FTA DART Stations
Last Mile Connections
Parker Road Station
February, 2018
DRAFT
• - Broken Button
A
B
C
D
E
7.3 N
Gaps to close
Parker Road Station
N CENTRAL EXPY
SAM JOHNSON HWY
E PARK BLVD
Existing Residential and Employment Population (Number of People)
0 - 10
11 - 50
51 - 100
101 - 250
251 - 578
579 - 1000
1001 - 1500
1501 - 2500
2501 - 5000
5001 - 24170
Legend
Primary Routes
Segment Category
Existing Sidewalk
Sidewalk Gap
Not Acceptable Sidewalk Condition
DART Rail Station
0.25 Mile Buffer
0.5 Mile Buffer
0
0.25
0.5
Miles



DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalks

Date July 3rd Morning Condition "N"
Parker Rd (1)
Staff Name

Break to create gap for one missing SW segment near corner @ Tires.

one seg SD settlement is P

Also break for SW settled 1" below Verizon box and ped ramp at Bandera Roadhouse Dwy settlement 1"+ (both P)

Also 2 segment gap N of Roadhouse drive way (VP) staked for "Prop. CRV"

Group Link number	Link ID	Street Name	From Street	To Street	Side of Street	Width (ft) Actual	Width (ft) Eff.	Sidewalk Condition Selection	If N, is new SW feasible?*	Curb & Gutter?	Buffer Type	Buffer Width (ft)	Prevailing Speed or Speed Limit (mph)	Street Widths (ft or lanes) On-Street Parking	Bike Lane	Shoulder	No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Land Use Selection	Lighting?	Bicycle and Pedestrian Wayfinding?*	Notes	Photo(s)?
1.1	8049	Central EXPY			W	4	4	E/G	-	Y	L	4	45	0	0	0	3	S	3	3	Y	Y N		
1.2SG		Central EXPY			W			N	Y N	Y	N	0	45	0	0	0	3	S	3	3	N	Y N	signage and post obstruction	Y
1.3SG		Central EXPY			W			N	Y N	Y	N	0	45	0	0	0	3	S	3	3	N	Y N	exposed rebar curb	Y
2.1	8257	Central EXPY	N limit		E	4	4	F	-	Y	L	2.5	45	0	0	0	2	N	3	3	N	Y N	lighting Y under bridge (see photo)	Y
2.2	8368	Central EXPY		Parker Rd	E	4	4	F	-	Y	L	5.5	45	0	0	0	2	N	3	3	N	Y N		Y
3.1WSG		K Ave	N proj limit		W			N	(Y) N	Y	N	0	40	0	0	0	6	-	2	2	N	Y (N)	4 quail b/c to u.p.'s	Y
3.2WSG		K Ave			W			N	(Y) N	Y	N	0	40	0	0	0	6	-	2	2	N	Y (N)		
3.3W	8333	K Ave	[illegible]	E Parker Rd	W	4	4	F	-	Y	L	2.5	40	0	0	0	6	-	2	2	N	Y (N)	DART Rail Sign leaning over SW	Y
3.1E	8377	K Ave	N proj limit [illegible]	Burger King	E	4	4	F	-	Y	N	0	40	0	0	0	6	-	2	2	Y	Y (N)	Failing ret. wall will limit eff. width soon	Y
3.2E	8358	K Ave	Burger King	E Parker Rd	E	4	4	E/G	-	Y	L	7	40	0	0	0	6	-	3	3	Y	Y (N)		Y
4.1SG		W Parker Rd/Central EXPY			W			N	Y N	Y	N	0	20	0	0	0	2	-	4	4	Y	Y N	high slope	Y
4.2SG		W Parker Rd/Central EXPY	under EXPY	Parker	S	12	12	E/G	Y (ramp Xing)	Y	N	0	45	0	0	0	2	-	4	4	N	N	underpass for possible sidewalk	Y
5SG		E Parker Rd/Central EXPY			E			N	Y N	Y	N	0	20	0	0	0	4	-	4	4		Y N		
6W	8001	N Ave			W	4	2	E/G	-	Y	N	0	30	0	0	0	2	-	3	3	N	Y N	mailbox mid/blocking sidewalks	Y
6E	8165	N Ave			E	4	2	E/G	-	Y	N	0	30	0	0	0	2	-	3	3	N	Y N		Y
7.1N	8088	W Parker Rd			N	8	5	E/G	-	Y	N	0	35	0	0	0	4	W	3	3	N	Y N		Y
7.2N	8164	W Parker Rd			N	10	5	E/G	-	Y	L	10	35	0	0	0	3	W	3	3	N	Y N		Y
7.3N	8401	E Parker Rd		Archerwood	N	4	3 4	E/G	-	Y	L	4	35 40	0	0	0	3 6	W	3	3	N	Y N	K	
7.4N	8076	E Parker Rd	Archerwood	K Ave	N	5	5	E/G	-	Y	L	5	35	0	0	0	3 6	W	3	3		Y N		
7.5N	8110	E Parker Rd	K	W of K	N	6	6	E/G	-	Y	N	0	35 40	0	0	0	3 6	W	3	3	Y	Y N	only 1 light	Y
7.6N	8002	E Parker Rd			N	4	4	E/G	-	Y	N	0	35 40	0	0	0	4 6	W	3	3	N	Y N		Y
7.7N	8157	E Parker Rd	E of Arch	Archerwood	N	5	5	E/G	-	Y	L	4	35 40	0	0	0	3 6	W	3	3	N	Y N		Y
7.1S	8239	W Parker Rd			S	6	6	E/G	-	Y	N	0	35	0	0	0	3	E	3	3	Y	Y N	overgrown grass	Y
7.2S	8140	W Parker Rd		intersection	S	10	10	F	-	Y	L	8	35	0	0	0	3	E	3	3	Y	Y N	>2 inch elevation difference	Y
7.2S	8140	W Parker Rd	intersection		S	10	4	F	-	Y	L	8	35	0	0	0	3	E	3	3	N	Y N		
7.3S	8182	E Parker Rd	Ramp	Archerwood	S	5	5	F	Y N	Y	N	0	35	0	0	0	4	E	3	3	N	Y N		
7.4S	8093	E Parker Rd	Archerwood	K Ave	S	5 4	5 4	E/G	Y N	Y	N	0	35	0	0	0	3	E	3	3	N	Y N		
7.5S	8212	E Parker Rd	K Ave	N Ave	S	4 5	4 5	E/G	Y N	Y	L	4 5	35	0	0	0	3	E	3	3	N	Y N		
8.1	8008	Lilac Dr		N Ave	N/S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
8.2	8168	Camelia Dr		N Ave	N/S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
8.3	8028	N Ave		Lilac	W/E	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
8.3	8193	N Ave	Lilac Dr	E Parker Rd	W	4	4	E/G	-	Y	L	7.5	30	0	0	0	2	-	1	1	N	Y N		
8.4	8174	N Ave	Lilac Dr	Felix Dr	E	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
8.5	8335	N Ave	Felix Dr	E Parker Rd	E	4	4	E/G	-	Y	L	7.5	30	0	0	0	2	-	1	1	N	Y N		
9.1	8364	K Ave	E Parker Rd	Dobie Dr	W	4	4	F	-	Y	L	2.5 3	40	0	0	0	6	S	2	2	N	Y N	overgrown grass	Y
9.2	8220	K Ave	Dobie Dr	Parking Lot	W	4	4	F	-	Y	L	2.5 3	40	0	0	0	6	S	2	2	N	Y N		
9.3	8282	K Ave	Parking Lot	Parking Lot	W	6 4	6 4	E/G	Y N	Y	N	0	40	0	0	0	6	S	2	2		Y N		
E Parker		Archerwood U75NB			N	4	3	E/G	–	Y	L	4	40	0	0	0	6	–			N	N	Bus stop sign Rte 452 #33361 in SW limiting eff. width to 3.25'	Y

Need buffer codes in footer

For Side of Street, choose:
N NE
S SE
E NW
W SW

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LEE ENGINEERING

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9.4	8123	K Ave	Parking Lot	Park BLVD	W	4	4	E/G	Y N	Y	L	2	40	0	0	0	6	S	2 3	2	N	Y N		
10.1	8422	K Ave	E Parker Rd	Dobie Dr	E	4	4	E/G	Y N	Y	L	2	40	0	0	0	6	N	2 3	2	N	Y N		
10.2 (2)	8136	K Ave	Dobie Dr	Park Blvd	E	4	4	F | E/G	Y N	Y	L	2.5 & 3	40	0	0	0	6	N	2 3	2	N	Y N		
11.1SG		Dobie Dr	K Ave	Dobie Dr	N			N	Y	Y	N	0	30	0	0	0	2	-	1	1	N	Y N	poles/hydrant/utilities obs.	Y
11.2SG		Dobie Dr			S			N	Y N	Y	N	0	30	0	0	0	2	-	1	1	N	Y N		Y
11.3	8077	Dobie Dr		Dobie Dr	S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N	tension wire overhead	Y
11.4	8225	Dobie Dr	Dobie Dr	E Park BLVD	W	4	4	P	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N	pictures of poor section	Y
11.5	8171	Dobie Dr	Dobie Dr		E	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
11.6	8153	Dobie Dr		E Park BLVD	E	6	6	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	Y N		
12.1	7991	Archerwood	E Parker Rd	Ozark Dr	W	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1 2	N	Y N		
12.21	8080	Archerwood	Ozark Dr		W	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1 2	Y	Y N	Light in parking lot area	
12.22		Archerwood		Exchange	W	8	8	E/G	-	Y	N	0	30	0	0	0	2	-	1	1 2	N	Y N		
12.3	8143	Archerwood	Exhchange	E Park BLVD	W	11 & 11 &		F | E/G	-	Y	L	5	30	0	0	0	2	-	1	1 2	N	Y N		
13.1	8175	Archerwood	E Parker Rd	Exchange	E	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1 2	N	Y N		
13.21	8017	Archerwood	Exchange		E	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1 2	N	Y N		
13.22	8017	Archerwood		DART Station	E	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1 2	N	Y N		
13.3	8203	Archerwood	Dart Station	E Park BLVD	E	4	4	E/G	Y N	Y	L	5	30	0	0	0	2	-	1	1 2	N	Y N		
14.1	8130	Ozark Dr	Archerwood	Central EXPY	N	4	4		Y N	Y	L	4	30	0	0	0	2	-	2	2	Y	Y N		
15.1	8124	Ozark Dr	Archerwood	DWY	S	4	4	P	-	Y	L	5	30	0	0	0	2	-	2	2	N	Y N	Drainage problem, collected sediment	Y
15.2	8416	Ozark Dr	DWY	DWY	S	4	4	F	-	Y	L	4	30	0	0	0	2	-	2	2	Y	Y N		Y
15.3		Ozark Dr			S			N	Y N	Y	N	0	30	0	0	0	2	-	2	2	N	Y N	speed cushions	Y
15.4	8415	Ozark Dr	DWY	Central EXPY	S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	2	2	N	Y N	light signage, remove cable	Y
16.1	8231	Exchange Dr	Archerwood		N	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	2	2	N	Y N		
16.2SG		Exchange Dr	Rooms to Go	Central EXPY	N			N	Y N	Y	N	0	30	0	0	0	2	-	2	2	N	Y N		
17.1	8347	Exchange Dr	Archerwood		S	4	4	F	-	Y	L	5	30	0	0	0	2	-	2	2	N	Y N		
17.2SG		Exchange Dr			S			N	Y N	Y	N	0	30	0	0	0	2	-	2	2	N	Y N		
17.3	8218	Exchange Dr	Rooms to Go	Central EXPY	S	4	4	F	-	Y	L	4	30	0	0	0	2	-	2	2	N	Y N		
18.1SG		Central EXPY	W Parker Rd	Target	W			N	Y N	Y	N	0	45	0	0	0	3	S	2	2	N	Y N	light pole, utilities	Y
18.2	8414	Central EXPY	Target	Parking Lot	W	4	4	E/G	-	Y	L	2	45	0	0	0	3	S	3	3	N	Y N		
18.3SG		Central EXPY			W			N	Y N	Y	N	0	45	0	0	0	3	S	3	3	N	Y N	Drainage issues - $$$, Slope (ditch)	Y
18.4	8414	Central EXPY	Volvo	Steak 'n Shake	W	4	4	F	-	Y	L	2	45	0	0	0	3	S	3	3	N	Y N	grade issues, short sight distance	Y
19.1SG		Central EXPY	W Parker Rd	Lexington	E			N	Y N	Y	N	0	45	0	0	0	3	N	3	3	N	Y N	sigh removal/relocation - utilities	Y
19.2	8083	Central EXPY	Best Buy		E	5	5	E/G	-	Y	N	0	45	0	0	0	3	N	3	3	N	Y N	crossing issues	Y
19.3	8161	Central EXPY	In n Out		E	4	4	E/G	-	Y	L	7	45	0	0	0	3	N	3	3	N	Y N		
19.4SG		Central EXPY			E			N	Y N	Y	N	0	45	0	0	0	3	N	3	3	N	Y N	goat trail (space rights)	Y
19.5	8010	Central EXPY	Ozark Dr	Bank of America	E	4	4	F	-	Y	L	4	45	0	0	0	3	N	3	3	N	Y N		
19.6SG		Central EXPY			E			N	Y N	Y	N	0	45	0	0	0	3	N	3	3	Y	Y N	trees/roots & slope problems	Y
24.2	14166		G Ave		N	0	0	N	Y N	Y	N	0	30	0	0	0	2	-	1	1	Y	Y N		
24.3	13553	Haggard St	G Ave		S				Y N	Y	L	4	30	0	0	0	2	-	1	1		Y N		Her.
25.1	8059	E Park BLVD	west boundary	Republic Dr	N	6	6		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		

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W SW

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25.2	8085	E Park BLVD	Republic Dr	Archerwood St	N	6	6		-	Y	L	3	40	0	0	0	6	-	2	2		Y N		
25.3	8087	E Park BLVD	Archerwood St	K Ave	N	4	4		-	Y	L	5	40	0	0	0	6	-	2	2		Y N		
26.1	8009	E Park BLVD			S	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
26.2	8313	E Park BLVD		Central PKWY E	S	5	5		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
26.3	8107	E Park BLVD	Central PKWY E		S	5	5		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
26.4	8394	E Park BLVD		Archerwood St	S	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
26.5	8394	E Park BLVD	Archerwood St	Autozone	S				Y N	Y	L	4	40	0	0	0	6	-	2	2		Y N		
26.6	8385	E Park BLVD		K Ave	S	5.5	5.5		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
25.4	8251	E Park BLVD	K Ave	Dobie Dr	N	4	4	E/G	-	Y	L	6	40	0	0	0	6	-	2	2		Y N		
26.7	8052	E Park BLVD	K Ave	Cash Store	S	4	4	E/G	-	Y	L	2.5	40	0	0	0	6	-	2 3	2	N	Y N		
26.8	8276	E Park BLVD	Cash Store	Dobie Dr	S	9 & 3 &		E/G	-	Y	N	0	40	0	0	0	6	-	2	2	N	Y N		
25.6	8325	E Park BLVD	Dobie Dr	N Ave	N	4	4	F | Gr | N	-	Y	L	6	30	0	0	0	6	-	2	2	N	Y N	Bus stop in grass & SGa	
27.1	8328	E Park BLVD	Dobie Dr		S	4	4		-	Y	L	2 3	30	0	0	0	6	-	2	2	N	Y N		
27.2	8025	E Park BLVD		N Ave	S	4	4		-	Y	N	0	30	0	0	0	6	-	2	2	N	Y N		
28.1	8395	E Park BLVD	N Ave		N	4	4		-	Y	L	8 6	30	8	0	0	6	-	2	2	N	Y N		
28.2	8255	E Park BLVD	N Ave		S	4	4		-	Y	L	8 4	30	8	0	0	6	-	2	2	N	Y N		
29.1	8419	K Ave	E Park BLVD		W	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
29.2	8027	K Ave		22nd St	W	4.5	4.5		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
29.3	8321	K Ave	22nd St	20th St	W	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
29.4	13698	K Ave	20th St	19th St	W	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
30.1	8155	K Ave		22nd St	E	4	4		-	Y	L	3	40	0	0	0	6	-	2	2		N		
30.2	8272	K Ave	22nd St	20th St	E	4	4		-	Y	L	3	40	0	0	0	6	-	2	2		N		
30.3	8272	K Ave	20th St	19th St	E	4	4	E/G	-	Y	L	3	40	0	0	0	6	-	2	2		N		
31.1	8178	N Ave	E Park BLVD	Hawthorne Ln	W	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	N	N		
31.2	8388	N Ave	E Park BLVD	Hawthorne Ln	E	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	N	N		
32.1	7987	N Ave	Hawthorne Ln		W	4	4	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	N		
32.2	8041	N Ave	Hawthorne Ln		E	4	4	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	N	ongoing construction	Y
33.3	8041	Hawthorne Ln	N Ave		N	4	4	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	N		
33.6	8283	Hawthorne Ln	Jasmine Ln		S	4	4	F	-	Y	L	7	30	0	0	0	2	-	1	1	N	N		
33.7	8233	Hawthorne Ln	Jasmine Ln		N	4	4	F	-	Y	L	7	30	0	0	0	2	-	1	1	N	N		
34.1	8127	Jasmine Ln			W	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	Y	N	** sidewalk gap	Y
34.2	8362	Jasmine Ln			E	4	4	F	-	Y	L	6	30	0	0	0	2	-	1	1	Y	N	poorer conditions	Y
34.3	8267	Laurel Ln			N	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
34.4	8342	Laurel Ln			S	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
34.5	8003	Japonica Ln			N	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
34.6	8229	Japonica Ln			S	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
35.1	8221	N Ave			W	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
35.2	8337	N ave			E	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	Y	N		
35.3	8092	Williamsburg Dr			N	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
									Y N	Y N									1 2 3 4			Y N		

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DART Red & Blue Line Last Mile Connections Project Date July 3rd Parker Rd (1) Staff Name

Field Data Checklist - Sidewalks

Group Link number	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width (ft) Actual	Sidewalk Width (ft) Eff.	Sidewalk Condition Selection	If N, is new SW feasible?*	Curb & Gutter?	Buffer Type	Buffer Width (ft)	Prevailing Speed or Speed Limit (mph)	Street Widths (ft or lanes) On-Street Parking	Bike Lane	Shoulder	No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Land Use Selection	Lighting?	Bicycle and Pedestrian Wayfinding?*	Notes	Photo(s)?
1.1	8049	Central EXPY			W	4	4	E/G	-	Y	L	4	45	0	0	0	3	S	3	3	Y	Y N		
1.2SG		Central EXPY			W			N	Y N	Y	N	0	45	0	0	0	3	S	3	3	N	Y N	signage and post obstruction	Y
1.3SG		Central EXPY			W			N	Y N	Y	N	0	45	0	0	0	3	S	3	3	N	Y N	exposed rebar curb	Y
2.1	8257	Central EXPY			E	4	4		-	Y	L	2.5	45	0	0	0	2	N	3	3		Y N		
2.2	8368	Central EXPY			E	4	4		-	Y	L	5.5	45	0	0	0	2	N	3	3		Y N		
3.1WSG		K Ave	Park Blvd	AAMCO	W			N E/G	Y N	Y	N	0	40	0	0	0	6	-	2	2	N	Y N		
3.2WSG		K Ave	AAMCO		W			N E/G	Y N	Y	N	0	40	0	0	0	6	-	2	2	N	Y N		
3.3W	8333	K Ave	Park Blvd	E Parker Rd	W	4	4	F	-	Y	L	2.5 3	40	0	0	0	6	-	2 (3)	2	N	Y N		
3.1E	8377	K Ave			E	4	4		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
3.2E	8358	K Ave	Park Blvd	E Parker Rd	E	4	4	E/G	-	Y	L	7	40	0	0	0	6	-	3	3	N	Y N		
4.1SG		W Parker Rd/Central EXPY			W	0	0	N	Y N	Y	N	0	20	0	0	0	2	-	4	4	Y	Y N	high slope	Y
4.2SG		W Parker Rd/Central EXPY	under EXPY	Parker	S	12	12	E/G	Y (ramp Xing)	Y	N	0	45	0	0	0	2	-	4	4	N	N	underpass for possible sidewalk	Y
5SG		E Parker Rd/Central EXPY			E			N	Y N	Y	N	0	20	0	0	0	4	-	4	4		Y N		
6W	8001	N Ave			W	4	2	E/G	-	Y	N	0	30	0	0	0	2	-	3	3	N	Y N	mailbox mid/blocking sidewalks	Y
6E	8165	N Ave			E	4	2	E/G	-	Y	N	0	30	0	0	0	2	-	3	3	N	Y N		Y
7.1N	8088	W Parker Rd			N	8	5	E/G	-	Y	N	0	35	0	0	0	4	W	3	3	N	Y N		Y
7.2N	8164	W Parker Rd			N	10	5	E/G	-	Y	L	10	35	0	0	0	3	W	3	3	N	Y N		Y
7.3N	8401	E Parker Rd	McCollum's	Archerwood	N	4	4		-	Y	L	4	35	0	0	0	3 6	W	3	3		Y N		
7.4N (2)	8076	E Parker Rd	Archerwood	K Ave	N	4 5	4 5		-	Y	L/M	4 8 0	35	0	0	0	3	W	3	3		Y N		
7.5N	8110	E Parker Rd	K Ave	H Mart	N	4 5	4 5		-	Y	N	0	35	0L	0	0	3	W	3	3		Y N		
7.6N	8002	E Parker Rd			N	4	4		-	Y	N	0	35	0	0	0	4	W	3	3		Y N		
7.7N	8157	E Parker Rd		N Ave	N	5	5		-	Y	L	4	35	0	0	0	3	W	3	3		Y N		
7.1S	8239	W Parker Rd			S	6	6	E/G	-	Y	N	0	35	0	0	0	3	E	3	3	Y	Y N	overgrown grass	Y
7.2S	8140	W Parker Rd		intersection	S	10	10	F	-	Y	L	8	35	0	0	0	3	E	3	3	Y	Y N	>2 inch elevation difference	Y
7.2S	8140	W Parker Rd	intersection		S	10	4	F	-	Y	L	8	35	0	0	0	3	E	3	3	N	Y N		
7.3S	8182	E Parker Rd		Archerwood	S	5	5	F	Y N	Y	N	0	35	0	0	0	6	E	3	3	N	Y N		
7.4S	8093	E Parker Rd	Archerwood	K Ave	S	6 4	5 4	E/G	Y N	Y	N	0	35	0	0	0	3	E	3	3	N	Y N		
7.5S	8212	E Parker Rd	K Ave	N Ave	S	(4)/5	5	E/G	Y N	Y	L	(4) 5	35	0	0	0	3	E	3	3	N	Y N		
8.1	8008	Lilac Dr		N Ave	N/S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
8.2	8168	Camelia Dr		N Ave	N/S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
8.3	8028	N Ave		Lilac	W/E	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
8.3	8193	N Ave	Lilac Dr	E Parker Rd	W	4	4	E/G	-	Y	L	7.5	30	0	0	0	2	-	1	1	N	Y N		
8.4	8174	N Ave	Lilac Dr	Felix Dr	E	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
8.5	8335	N Ave	Felix Dr	E Parker Rd	E	4	4	E/G	-	Y	L	7.5	30	0	0	0	2	-	1	1	N	Y N		
9.1	8364	K Ave	E Parker Rd	Dobie Dr	W	4	(2) 4	F	-	Y	L	2 5 3	40	0	0	0	6	S	2	2	N	Y N	Overgrown grass	
9.2	8220	K Ave	Dobie Dr	Parking Lot	W	4	4	F	-	Y	L	2 5 3	40	0	0	0	6	S	2	2	N	Y N		
9.3	8282	K Ave	Parking Lot		W	6	6 4	E/G	Y N	Y	N	0	40	0	0	0	6	S	2	2		Y N		

* 7.4 split

* 2.5 5 split

For Side of Street, choose:

N	NE
S	SE
E	NW
W	SW

Condition Options:
E/G = Excellent/Good
F = Fair
P = Poor
VP = Very Poor
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*All lanes for 2-way street

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9.4	8123	K Ave	Parking Lot	Park BLVD	W	4	4	E/G	Y N	Y	L	2.5	40	0	0	0	6	S	2 3	2	N	Y N		
10.1	8422	K Ave	E Parker Rd	Dobie Dr	E	4	4	E/G	Y N	Y	L	2	40	0	0	0	6	N	2 3	2	N	Y N		
10.2	8136	K Ave	Dobie Dr	Park BLVD	E	4	4	F - E/G	Y N	Y	L	2 5 8	40	0	0	0	6	N	2	2	N	Y N		
11.1SG		Dobie Dr	K Ave	Dobie Dr	N			N	Y	Y	N	0	30	0	0	0	2	-	1	1	N	Y N	poles/hydrant/utilities obs.	Y
11.2SG		Dobie Dr			S			N	Y N	Y	N	0	30	0	0	0	2	-	1	1	N	Y N		Y
11.3	8077	Dobie Dr		Dobie Dr	S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N	tension wire overhead	Y
11.4	8225	Dobie Dr	Dobie Dr	E Park BLVD	W	4	4	P	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N	pictures of poor section	Y
11.5	8171	Dobie Dr	Dobie Dr		E	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
11.6	8153	Dobie Dr		E Park BLVD	E	6	6	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	Y N		
12.1	7991	Archerwood	E Parker Rd	Ozark Dr	W	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	Y N		
12.21	8080	Archerwood	Ozark Dr		W	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	Y	Y N	Light in parking lot area	
12.22		Archerwood		Exchange	W	8	8	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	Y N		
12.3	8143	Archerwood	Exhchange	E Park BLVD	W	11 4	11 4	P E/G	-	Y	N L	5 0	30	0	0	0	2	-	1 2	1	N	Y N		
13.1	8175	Archerwood	E Parker Rd	Exchange	E	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	N	Y N		
13.21	8017	Archerwood	Exchange		E	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	N	Y N		
13.22	8017	Archerwood		DART Station	E	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	N	Y N		
13.3	8203	Archerwood	Dart Station	E Park BLVD	E	10 6	8 6	E/G	Y N	Y	L	5	30	0	0	0	2	-	1	1	N	Y N		
14.1	8130	Ozark Dr	Archerwood	Central EXPY	N	4	4		Y N	Y	L	4	30	0	0	0	2	-	2	2	Y	Y N		
15.1	8124	Ozark Dr	Archerwood	DWY	S	4	4	P	-	Y	L	5	30	0	0	0	2	-	2	2	N	Y N	Drainage problem, collected sediment	Y
15.2	8416	Ozark Dr	DWY	DWY	S	4	4	F	-	Y	L	4	30	0	0	0	2	-	2	2	Y	Y N		Y
15.3		Ozark Dr			S			N	Y N	Y	N	0	30	0	0	0	2	-	2	2	N	Y N	speed cushions	Y
15.4	8415	Ozark Dr	DWY	Central EXPY	S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	2	2	N	Y N	light signage, remove cable	Y
16.1	8231	Exchange Dr	Archerwood		N	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	2	2	N	Y N		
16.2SG		Exchange Dr	Rooms to Go	Central EXPY	N			N	Y N	Y	N	0	30	0	0	0	2	-	2	2	N	Y N		
17.1	8347	Exchange Dr	Archerwood		S	4	4	F	-	Y	L	5	30	0	0	0	2	-	2	2	N	Y N		
17.2SG		Exchange Dr			S			N	Y N	Y	N	0	30	0	0	0	2	-	2	2	N	Y N		
17.3	8218	Exchange Dr	Rooms to Go	Central EXPY	S	4	4	F	-	Y	L	4	30	0	0	0	2	-	2	2	N	Y N		
18.1SG		Central EXPY	W Parker Rd	Target	W			N	Y N	Y	N	0	45	0	0	0	3	S	2	2	N	Y N	light pole, utilities	Y
18.2	8414	Central EXPY	Target	Parking Lot	W	4	4	E/G	-	Y	L	2	45	0	0	0	3	S	3	3	N	Y N		
18.3SG		Central EXPY			W			N	Y N	Y	N	0	45	0	0	0	3	S	3	3	N	Y N	Drainage issues - $$$, Slope (ditch)	Y
18.4	8414	Central EXPY	Volvo	Steak 'n Shake	W	4	4	F	-	Y	L	2	45	0	0	0	3	S	3	3	N	Y N	grade issues, short sight distance	Y
19.1SG		Central EXPY	W Parker Rd	Lexington	E			N	Y N	Y	N	0	45	0	0	0	3	N	3	3	N	Y N	sigh removal/relocation - utilities	Y
19.2	8083	Central EXPY	Best Buy		E	5	5	E/G	-	Y	N	0	45	0	0	0	3	N	3	3	N	Y N	crossing issues	Y
19.3	8161	Central EXPY	In n Out		E	4	4	E/G	-	Y	L	7	45	0	0	0	3	N	3	3	N	Y N		
19.4SG		Central EXPY			E			N	Y N	Y	N	0	45	0	0	0	3	N	3	3	N	Y N	goat trail (space rights)	Y
19.5	8010	Central EXPY	Ozark Dr	Bank of America	E	4	4	F	-	Y	L	4	45	0	0	0	3	N	3	3	N	Y N		
19.6SG		Central EXPY			E			N	Y N	Y	N	0	45	0	0	0	3	N	3	3	Y	Y N	trees/roots & slope problems	Y
24.2	14166		G Ave		N				Y N	Y	N	0	30	0	0	0	2	-	1	1		Y N		
24.3	13553	Haggard St	G Ave		S				Y N	Y	L	4	30	0	0	0	2	-	1	1		Y N		
25.1	8059	E Park BLVD	Weh B.	Republic Dr	N	6	6		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		

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N	NE
S	SE
E	NW
W	SW

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N

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25.2	8085	E Park BLVD	Republic Dr	Archerwood St	N	6	6		-	Y	L	3	40	0	0	0	6	-	2	2		Y N		
25.3 (?)	8087	E Park BLVD	Archerwood St	K Ave Rail tracks	N	4	4	E/G	-	Y	L	5/15	40	0	0	0	6	-	2	2		Y N		
26.1	8009	E Park BLVD			S	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
26.2	8313	E Park BLVD		Central PKWY E	S	5	5		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
26.3	8107	E Park BLVD	Central PKWY E		S	5	5		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
26.4	8394	E Park BLVD		Archerwood St	S	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
26.5	8394	E Park BLVD	Archerwood St	Autozone	S				Y N	Y	L	4	40	0	0	0	6	-	2	2		Y N		
26.6	8385	E Park BLVD		K Ave	S	5.5	5.5		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
25.4	8251	E Park BLVD	K Ave	Dobie Dr	N	4	4	E/G	-	Y	L	6	40	0	0	0	6	-	2	2	N	(Y) N		
26.7	8052	E Park BLVD	K Ave	creek site	S	4	4	E/G	-	Y	L	3.5	40	0	0	0	6	-	23	23	N	Y N		
26.8	8276	E Park BLVD	CS	Dobie Dr	S	9 6	3 6	E/G	-	Y	N	0	40	0	0	0	6	-	23.	23	N	Y N		
25.6 (*)	8325	E Park BLVD	Dobie Dr	N Ave	N	4	4	F+E	(2) split	Y	L	6	30	0	0	0	6	-	23	2	N	Y N	Bus stop in grass + SG	
27.1	8328	E Park BLVD	Dobie Dr		S	4	4	E/G	-	Y	L	23	30	0	0	0	6	-	23	2	N	Y N		
27.2	8025	E Park BLVD		N Ave	S	4	4	F	-	Y	N	20	30	0	0	0	6	-	23	2		Y N		
28.1	8395	E Park BLVD	N Ave	End	N	4	4		-	Y	L	8 6	30	8	0	0	6	-	2	2		Y N		
28.2	8255	E Park BLVD	N Ave	End	S	4	4		-	Y	L	8 4	30	8	0	0	6	-	2	2		Y N		
29.1	8419	K Ave	E Park BLVD		W	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
29.2	8027	K Ave		22nd St	W	4.5	4.5		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
29.3	8321	K Ave	22nd St	20th St	W	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
29.4	13698	K Ave	20th St	19th St	W	4	4		-	Y	L	4	40	0	0	0	6	-	2	2		Y N		
30.1	8155	K Ave		22nd St	E	4	4		-	Y	L	3	40	0	0	0	6	-	2	2		N		
30.2	8272	K Ave	22nd St	20th St	E	4	4		-	Y	L	3	40	0	0	0	6	-	2	2		N		
30.3	8272	K Ave	20th St	19th St	E	4	4	E/G	-	Y	L	3	40	0	0	0	6	-	2	2		N		
31.1	8178	N Ave	E Park BLVD	Hawthorne Ln	W	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	N	N		
31.2	8388	N Ave	E Park BLVD	Hawthorne Ln	E	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	N	N		
32.1	7987	N Ave	Hawthorne Ln		W	4	4	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	N		
32.2	8041	N Ave	Hawthorne Ln		E	4	4	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	N	ongoing construction	Y
33.3	8041	Hawthorne Ln	N Ave		N	4	4	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	N		
33.6	8283	Hawthorne Ln	Jasmine Ln		S	4	4	F	-	Y	L	7	30	0	0	0	2	-	1	1	N	N		
33.7	8233	Hawthorne Ln	Jasmine Ln		N	4	4	F	-	Y	L	7	30	0	0	0	2	-	1	1	N	N		
34.1	8127	Jasmine Ln			W	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	Y	N	** sidewalk gap	Y
34.2	8362	Jasmine Ln			E	4	4	F	-	Y	L	6	30	0	0	0	2	-	1	1	Y	N	poorer conditions	Y
34.3	8267	Laurel Ln			N	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
34.4	8342	Laurel Ln			S	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
34.5	8003	Japonica Ln			N	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
34.6	8229	Japonica Ln			S	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
35.1	8221	N Ave			W	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
35.2	8337	N ave			E	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	Y	N		
35.3	8092	Williamsburg Dr			N	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
									Y N	Y N									1 2 3 4			Y N		

*25.6 → split into 4 sections N → Dobie North

For Side of Street, choose:
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Group Link number	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width (ft) Actual	Sidewalk Width (ft) Eff.	Sidewalk Condition Selection	If N, is new SW feasible?*	Curb & Gutter?	Buffer Type	Buffer Width (ft)	Prevailing Speed or Speed Limit (mph)	On-Street Parking	Bike Lane	Shoulder	No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Land Use Selection	Lighting?	Bicycle and Pedestrian Wayfinding?*	Notes	Photo(s)?
	NEW	Station	Pking lot	south (lot 4)	S	4	4	E/G	~~Y N~~	(Y) N	N	0					2	-	1 2 3 4		N	Y N	Parking lot	Y
		LD	" "	" "	E	4	3	E/G	~~Y N~~	(Y N)	N	0					2	-	1 2 3 4		N	Y N	Hedges / Eff width	✓
		lot 4	Parking		E	0	0	N	(Y) N	(Y) N	N	0							1 2 3 4	Parking	N	Y N	Poles, trees, utilities GT	✓
		Station	E Park		E	"	"	N	(Y) N	(Y N)	N	0							1 2 3 4	corner cut	N	Y N	Hedge Hole, goat trail	
									Y N	Y									1 2 3 4			Y N		
		E Parker	N cent. Expy	overpass	N				Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
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									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		

* GT = Goat Trail

For Side of Street, choose:
N NE
S SE
E NW
W SW

Condition Options:
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*All lanes for 2-way street

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LEE ENGINEERING

Break into 6' segment? No - just show eff. width

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9.4	8123	K Ave	Parking Lot	Park BLVD	W	4	4		Y N	Y	L	2	40	0	0	0	6	S	2	2		Y N		
10.1	8422	K Ave	E Parker Rd	Dobie Dr	E	4	4		Y N	Y	L	2	40	0	0	0	6	N	2	2		Y N		
10.2	8136	K Ave	Dobie Dr		E	4	4		Y N	Y	L	2	40	0	0	0	6	N	2	2		Y N		
11.1SG		Dobie Dr	K Ave	Dobie Dr	N			N	Y	Y	N	0	30	0	0	0	2	-	1	1	N	Y N	poles/hydrant/utilities obs.	Y
11.2SG		Dobie Dr			S			N	Y N	Y	N	0	30	0	0	0	2	-	1	1	N	Y N		Y
11.3	8077	Dobie Dr		Dobie Dr	S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N	tension wire overhead	Y
11.4	8225	Dobie Dr	Dobie Dr	E Park BLVD	W	4	4	P	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N	pictures of poor section	Y
11.5	8171	Dobie Dr	Dobie Dr		E	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	1	1	N	Y N		
11.6	8153	Dobie Dr		E Park BLVD	E	6	6	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	Y N		
12.1	7991	Archerwood	E Parker Rd	Ozark Dr	W	4	3.5	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	Y N		
12.21	8080	Archerwood	Ozark Dr		W	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	Y	Y N	Light in parking lot area	
12.22		Archerwood		Exchange	W	8	8	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	Y N		
12.3	8143	Archerwood	Exhchange	E Park BLVD	W	4	4	P	-	Y	L	5	30	0	0	0	2	-	1	1	N	Y N		
13.1	8175	Archerwood	E Parker Rd	Exchange	E	4	4	F	-	Y	L	5	30	0	0	0	2	-	1	1	N	Y N		
13.21	8017	Archerwood	Exchange		E	4	4	F	-	Y	L	5	30	0	0	0	2	-	1	1	N	Y N		
13.22	8017	Archerwood		DART Station	E	4	4	F	-	Y	L	5	30	0	0	0	2	-	1	1	N	Y N		
13.3	8203	Archerwood	Dart Station	E Park BLVD	E	4	4		Y N	Y	L	5	30	0	0	0	2	-	1	1		Y N		
14.1	8130	Ozark Dr	Archerwood	Central EXPY	N	4	4		Y N	Y	L	4	30	0	0	0	2	-	2	2	Y	Y N		
15.1	8124	Ozark Dr	Archerwood	DWY	S	4	4	P	-	Y	L	5	30	0	0	0	2	-	2	2	N	Y N	Drainage problem, collected sediment	Y
15.2	8416	Ozark Dr	DWY	DWY	S	4	4	F	-	Y	L	4	30	0	0	0	2	-	2	2	Y	Y N		Y
15.3		Ozark Dr			S			N	Y N	Y	N	0	30	0	0	0	2	-	2	2	N	Y N	speed cushions	Y
15.4	8415	Ozark Dr	DWY	Central EXPY	S	4	4	E/G	-	Y	L	4	30	0	0	0	2	-	2	2	N	Y N	light signage, remove cable	Y
16.1	8231	Exchange Dr	Archerwood		N	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	2	2	N	Y N		
16.2SG		Exchange Dr	Rooms to Go	Central EXPY	N			N	Y N	Y	N	0	30	0	0	0	2	-	2	2	N	Y N		
17.1	8347	Exchange Dr	Archerwood		S	4	4	F	-	Y	L	5	30	0	0	0	2	-	2	2	N	Y N		
17.2SG		Exchange Dr			S			N	Y N	Y	N	0	30	0	0	0	2	-	2	2	N	Y N		
17.3	8218	Exchange Dr	Rooms to Go	Central EXPY	S	4	4	F	-	Y	L	4	30	0	0	0	2	-	2	2	N	Y N		
18.1SG		Central EXPY	W Parker Rd	Target	W			N	Y N	Y	N	0	45	0	0	0	3	S	2	2	N	Y N	light pole, utilities	Y
18.2	8414	Central EXPY	Target	Parking Lot	W	4	4	E/G	-	Y	L	2	45	0	0	0	3	S	3	3	N	Y N		
18.3SG		Central EXPY			W			N	Y N	Y	N	0	45	0	0	0	3	S	3	3	N	Y N	Drainage issues - $$$, Slope (ditch)	Y
18.4	8414	Central EXPY	Volvo	Steak 'n Shake	W	4	4	F	-	Y	L	2	45	0	0	0	3	S	3	3	N	Y N	grade issues, short sight distance	Y
19.1SG		Central EXPY	W Parker Rd	Lexington	E			N	Y N	Y	N	0	45	0	0	0	3	N	3	3	N	Y N	sigh removal/relocation - utilities	Y
19.2	8083	Central EXPY	Best Buy		E	5	5	E/G	-	Y	N	0	45	0	0	0	3	N	3	3	N	Y N	crossing issues	Y
19.3	8161	Central EXPY	In n Out		E	4	4	E/G	-	Y	L	7	45	0	0	0	3	N	3	3	N	Y N		
19.4SG		Central EXPY			E			N	Y N	Y	N	0	45	0	0	0	3	N	3	3	N	Y N	goat trail (space rights)	Y
19.5	8010	Central EXPY	Ozark Dr	Bank of America	E	4	4	F	-	Y	L	4	45	0	0	0	3	N	3	3	N	Y N		
19.6SG		Central EXPY			E			N	Y N	Y	N	0	45	0	0	0	3	N	3	3	Y	Y N	trees/roots & slope problems	Y
24.2	14166		G Ave		N				Y N	Y	N	0	30	0	0	0	2	-	1	1		Y N		
24.3	13553	Haggard St	G Ave		S				Y N	Y	L	4	30	0	0	0	2	-	1	1		Y N		
25.1	8059	E Park BLVD		Republic Dr	N	6	6		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		

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H* = Hearing

x Median

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25.2	8085	E Park BLVD	Republic Dr	Archerwood St	N	6	6	F	-	Y	L	3	40	0	0	0	6	-	2	2	NO*	Y N	construction.	
25.3	8087	E Park BLVD	Archerwood St	K Ave	N	4	4	F	-	Y	L	5	40	0	0	0	6	-	2	2	NO*	Y N		
26.1	8009	E Park BLVD	W. End	710 Park	S	4	4	E/G	-	Y	L	4	40	0	0	0	6	-	2	2	NO*	Y N		
26.2	8313	E Park BLVD	710 PARK	Central PKWY E	S	5	5	E/G	-	Y	N	0	40	0	0	0	6	-	2	2	NO*	Y N		
26.3	8107	E Park BLVD	Central PKWY E	900 PARK	S	5	5	F H	-	Y	N	0	40	0	0	0	6	-	2	2	NO*	Y N		
26.4	8394	E Park BLVD	900 PARK	Archerwood St	S	4	4	E/G	-	Y	L	4	40	0	0	0	6	-	2	2	NO	Y N		
26.5	8394	E Park BLVD	Archerwood St	Autozone	S	4	4	E/G	Y N ?	Y	L	4?	40	0	0	0	6	-	2	2	NO	Y N		
26.6	8385	E Park BLVD	Autozone	K Ave	S	5.5	5.5	E/G	-	Y	N	0	40	0	0	0	6	-	2	2	NO	Y N		
25.4	8251	E Park BLVD	K Ave	Dobie Dr	N	4	4		-	Y	L	6	40	0	0	0	6	-	2	2		Y N		
26.7	8052	E Park BLVD	K Ave		S	4	4		-	Y	L	2	40	0	0	0	6	-	2	2		Y N		
26.8	8276	E Park BLVD		Dobie Dr	S	6	6		-	Y	N	0	40	0	0	0	6	-	2	2		Y N		
25.6	8325	E Park BLVD	Dobie Dr	N Ave	N	4	4		-	Y	L	6	30	0	0	0	6	-	2	2		Y N		
27.1	8328	E Park BLVD	Dobie Dr		S	4	4		-	Y	L	2	30	0	0	0	6	-	2	2		Y N		
27.2	8025	E Park BLVD		N Ave	S	4	4		-	Y	N	0	30	0	0	0	6	-	2	2		Y N		
28.1	8395	E Park BLVD	N Ave		N	4	4		-	Y	L	8	30	8	0	0	6	-	2	2		Y N		
28.2	8255	E Park BLVD	N Ave		S	4	4		-	Y	L	6	30	8	0	0	6	-	2	2		Y N		
29.1	8419	K Ave	E Park BLVD		W	4	4	F	-	Y	L	4 3?	40	0	0	0	6	-	2	2	NO	Y N		
29.2	8027	K Ave		22nd St	W	4.5	4.5	F/G	-	Y	N	0	40	0	0	0	6	-	2	2	NO*	Y N		
29.3	8321	K Ave	22nd St	20th St	W	4	4	E/G	-	Y	L	4 3?	40	0	0	0	6	-	2	2	NO*	Y N		
29.4	13698	K Ave	20th St	19th St	W	4	4	F/G	-	Y	L	4 3?	40	0	0	0	6	-	2	2	NO*	Y N		
30.1	8155	K Ave		22nd St	E	4	4	E/G	-	Y	L	3	40	0	0	0	6	-	2	2	NO*	N		
30.2	8272	K Ave	22nd St	20th St	E	4	4	F/G	-	Y	L	3	40	0	0	0	6	-	2	2	NO*	N		
30.3	8272	K Ave	20th St	19th St	E	4	4	E/G	-	Y	L	3	40	0	0	0	6	-	2	2	NO*	N		
31.1	8178	N Ave	E Park BLVD	Hawthorne Ln	W	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	N	N		
31.2	8388	N Ave	E Park BLVD	Hawthorne Ln	E	4	4	E/G	-	Y	L	5	30	0	0	0	2	-	1	1	N	N		
32.1	7987	N Ave	Hawthorne Ln		W	4	4	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	N		
32.2	8041	N Ave	Hawthorne Ln		E	4	4	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	N	ongoing construction	Y
33.3	8041	Hawthorne Ln	N Ave		N	4	4	E/G	-	Y	N	0	30	0	0	0	2	-	1	1	N	N		
33.6	8283	Hawthorne Ln	Jasmine Ln		S	4	4	F	-	Y	L	7	30	0	0	0	2	-	1	1	N	N		
33.7	8233	Hawthorne Ln	Jasmine Ln		N	4	4	F	-	Y	L	7	30	0	0	0	2	-	1	1	N	N		
34.1	8127	Jasmine Ln			W	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	Y	N	** sidewalk gap	Y
34.2	8362	Jasmine Ln			E	4	4	F	-	Y	L	6	30	0	0	0	2	-	1	1	Y	N	poorer conditions	Y
34.3	8267	Laurel Ln			N	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
34.4	8342	Laurel Ln			S	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
34.5	8003	Japonica Ln			N	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
34.6	8229	Japonica Ln			S	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
35.1	8221	N Ave			W	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
35.2	8337	N ave			E	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	Y	N		
35.3	8092	Williamsburg Dr			N	4	4	E/G	-	Y	L	6	30	0	0	0	2	-	1	1	N	N		
									Y N	Y N									1 2 3 4			Y N		

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LEE ENGINEERING

Republic central

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		~~[illegible]~~ Park	W End	710 Park	N	6	6	E/G	Y N	[✓ Y] N	–	–	40	NO	NO	NO	6	–	1 [✓ 2] 3 4	2	NO*	Y [✓ N]		
		"	710	~~[illegible]~~	N	6	6	E/G	Y N	[✓ Y] N	–	–	40	NO	NO	NO	6	–	1 [✓ 2] 3 4	2	NO*	Y [✓ N]		
	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~		N	6	6	P/G	Y N	[✓ Y] N	–	–	40	NO	NO	NO	6	–	1 [✓ 2] 3 4	2	NO*	Y [✓ N]		
		~~[illegible]~~	~~[illegible]~~						Y N	Y N									1 2 3 4			Y N		
		Park	Repub/central						Y N	Y									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
		Republic/							Y N	Y N									1 2 3 4			Y N		
N Leg	of	central P.	~~[illegible]~~ Park	FWY	E	5	5	E/G	Y N	[✓ Y] N	–	–	30	NO	NO	NO	2	–	1 [✓ 2] 3 4	2	NO	Y [✓ N]	F.H. in middle S. of Motel 6 Dwy	
N Leg	of	"	"	"	W	5	5	E/G	Y N	[✓ Y] N	–	–	30	NO	NO	NO	2	–	1 [✓ 2] 3 4	2	NO	Y [✓ N]		
									Y N	[✓ Y] N	–	–							1 2 3 4			Y N		
S Leg	of	"	"	G Ave	E	5	5	E/G	Y N	[✓ Y] N	–	–	30	NO	NO	NO	2	–	1 [✓ 2] 3 4	2	NO	[✓ Y] N		
S Leg	of	"	"	"	W	5	5	E/G	Y N	[✓ Y] N	–	–	30	NO	NO	NO	2	–	1 [✓ 2] 3 4	2	NO	Y [✓ N]		
			Central						Y N	Y N									1 2 3 4			Y N		
		G	~~Republic~~	S.E. Eng	S	4	4	E/G	Y N	[✓ Y] N	–	–	30	NO	NO	NO	4	–	1 [✓ 2] 3 4	2	N	[✓ Y] N		
		G	"	"	N				[✓ Y] N	Y N									1 2 3 4			Y N		
									Y N	Y N									1 2 3 4			Y N		
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*Add photos of each sign; sketch signing and marking on separate map

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges   See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Unsignalized Crossings

Date July, ~~2nd~~ 25th 2018   Station Area Parker Rd   Staff Name ____________

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	If Unsignalized with no Stop Control (i.e. Free): Speed Limit (mph)	One Way?	2-Min. Traffic Count*: Time	Volume	Treatment present (circle all)	Photo(s)?	Notes
	I	N Ave	Parker	E	N	N	3	6		Y	35	N	1:20	40	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	N Ave	Parker	W	N	N	3	6		Y	35	N	1:20	40	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	Park	N Ave	E	N	N	3	6		Y		N	2:15	41	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	Park	N Ave	W	N	Y	3	6		Y		N	2:15	41	Mkg RSg RRFB InSgn Cex RCwk	Y	
5SG	I	Ozark	EXPY							N		Y N	9:30	9	Mkg RSg RRFB InSgn Cex RCwk	Y	
4.2SG	I	Parker on ramp	EBR	S	N	Y		1		Y	20 ADV	Y	9:30	18	**Mkg** RSg RRFB InSgn Cex RCwk	Y	
4.3SG	I	SBGR to Parker	SBFR	N	N	N	1	1		N	20 ADV	Y N	10:00	10	Mkg RSg RRFB InSgn Cex RCwk	Y	
18.2	I	EBOFR Parker	EBFR	W	N	Y	1	1		N	45	Y N	10:05	10	Mkg RSg RRFB InSgn Cex RCwk	Y	
13.2	I	Archerwood	Exchange	N	N	Y	1	2		Y	30	Y N	12:40	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Exchange	S	N	Y	1	2		Y	30	Y N	12:40	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Parking	N	N	Y	1	2		Y	30	Y N	12:50	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Parking	S	N	Y	1	2		Y	30	Y N	12:50	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Ozark	N	N	Y	1	2		N	30	Y N	12:55	11	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Ozark	S	N	Y	1	2		N	30	Y N	12:55	11	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	NBR to Parker	US 75 NBFR	E	N	N	1	1		N	20 ADV	Y N	8:35	9	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	Dobie Dr	K Ave	E		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	22nd	K Ave	W		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Ozark Dr	Archerwood St	W		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Exchange Dr	Archerwood St	W		Y	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Archerwood St	Exchange Dr	N		Y	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Archerwood St	Exchange Dr	S		Y	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Archerwood St	E Park Blvd *	N •	N	N •	1 •	3 •	0 •	Y •	50	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	Exchange Dr	N Central Expy	E	[illegible]	N	1	2	0	N		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Ozark Dr	N Central Expy	E		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	[✓ I] M	19th	K	W	**	N ⊛	1	2	0	Y	~~40~~ 30	Y [✓ N]	10:07	0	Mkg RSg RRFB InSgn Cex RCwk		
	[✓ I] M	"	" th	E	**	N ⊛	1	2	0	Y	30	Y [✓ N]	10:07	5	Mkg RSg RRFB InSgn Cex RCwk		
	[✓ I] ~~M~~	K	19th	N	**	N ⊛	3	6	0	Y	40	Y [✓ N]	10:10	137	Mkg RSg RRFB InSgn [✓ Cex] RCwk		
	[✓ I] ~~M~~	K	19th	S	**	N ⊛	3	6	0	Y	40	Y [✓ N]	10:10	137	Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	[✓ I] M	G	Republic	E	Y	N	1	2	0	Y	30	Y [✓ N]	11:46	4	Mkg RSg RRFB InSgn Cex RCwk		
	[✓ I] M	Republic	G	N	N	N	2	4	0	Y	30	Y [✓ N]	"	12	Mkg RSg RRFB InSgn Cex RCwk		
	[✓ I] M	"	"	S	N	N	2	4	0	Y	30	Y [✓ N]	"	12	Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
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	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:

N	NE
S	SE
E	NW
W	SW

(N/A for mid-block)

* No cross walk to cross Para N/S dir!!
** Emergency Signal
⊛ median

* if ADT is not avail.

Condition Options:
Mkg = Markings
Rsg = Roadside signage
RRFB = Rapid Flash Rect. Beacon
InSgn = In-street signs
Cex = Curb extensions
RCwk = Raised crosswalk

Legend:
☐ Complete in office, confirm in field
☐ Confirm in field

LEE ENGINEERING
Unsignalized Crossings

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Unsignalized Crossings

Date: July, ~~3rd~~ 25th 2018 Station Area: Parker Rd Staff Name: ____________

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	If Unsignalized with no Stop Control (i.e. Free): Speed Limit (mph)	One Way?	2-Min. Traffic Count*: Time	Volume	Treatment present (circle all)	Photo(s)?	Notes
	I	N Ave	Parker	E	N	N	3	6		Y	35	N	1:20	40	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	N Ave	Parker	W	N	N	3	6		Y	35	N	1:20	40	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	Park	N Ave	E	N	N	3	6		Y		N	2:15	41	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	Park	N Ave	W	N	Y	3	6		Y		N	2:15	41	Mkg RSg RRFB InSgn Cex RCwk	Y	
5SG	I	Ozark	EXPY							N		Y N	9:30	9	Mkg RSg RRFB InSgn Cex RCwk	Y	
4.2SG	I	Parker on ramp	EBR	S	N	Y		1		Y	20 ADV	Y	9:30	18	**Mkg** RSg RRFB InSgn Cex RCwk	Y	
4.3SG	I	SBGR to Parker	SBFR	N	N	N	1	1		N	20 ADV	Y N	10:00	10	Mkg RSg RRFB InSgn Cex RCwk	Y	
18.2	I	EBOFR Parker	EBFR	W	N	Y	1	1		N	45	Y N	10:05	10	Mkg RSg RRFB InSgn Cex RCwk	Y	
13.2	I	Archerwood	Exchange	N	N	Y	1	2		Y	30	Y N	12:40	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Exchange	S	N	Y	1	2		Y	30	Y N	12:40	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Parking	N	N	Y	1	2		Y	30	Y N	12:50	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Parking	S	N	Y	1	2		Y	30	Y N	12:50	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Ozark	N	N	Y	1	2		N	30	Y N	12:55	11	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Ozark	S	N	Y	1	2		N	30	Y N	12:55	11	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	NBR to Parker	US 75 NBFR	E	N	N	1	1		N	20 ADV	Y N	8:35	9	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	Dobie Dr	K Ave	E		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	22nd	K Ave	W		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Ozark Dr~~	~~Archerwood~~ St	W		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Exchange~~ Dr	~~Archerwood~~ St	W		Y	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Archerwood~~ St	~~Exchange Dr~~	N		Y	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Archerwood~~ St	~~Exchange~~ Dr	S		Y	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Archerwood St	E Park Blvd	N		N	1	3	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Exchange Dr	N Central Expy	E		N	1	2	0	N		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Ozark Dr	N Central Expy	E		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Ramp(On) Parker to US75NBFR			N	Y	1	1	0	Y	20adv	(Y) N	11:50a	6	(Mkg) (RSg) RRFB InSgn Cex RCwk	Y	wrong sign
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
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	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
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	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Legend:
Complete in office, confirm in field
Confirm in field

* if ADT is not avail.

Condition Options:
Mkg = Markings
Rsg = Roadside signage
RRFB = Rapid Flash Rect. Beacon
InSgn = In-street signs
Cex = Curb extensions
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LEE ENGINEERING
Unsignalized Crossings

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Unsignalized Crossings

Date: July, ~~3rd~~ 25th 2018 Station Area: Parker Rd Staff Name: ____________

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	If Unsignalized with no Stop Control (i.e. Free): Speed Limit (mph)	One Way?	2-Min. Traffic Count*: Time	Volume	Treatment present (circle all)	Photo(s)?	Notes
	I	N Ave	Parker	E	N	N	3	6		Y	35	N	1:20	40	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	N Ave	Parker	W	N	N	3	6		Y	35	N	1:20	40	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	Park	N Ave	E	N	N	3	6		Y		N	2:15	41	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	Park	N Ave	W	N	Y	3	6		Y		N	2:15	41	Mkg RSg RRFB InSgn Cex RCwk	Y	
5SG	I	Ozark	EXPY	W	N	N				N		Y N	9:30	9	Mkg RSg RRFB InSgn Cex RCwk	Y	
4.2SG	I	Parker on ramp	EBR	S	N	Y		1		Y	20 ADV	Y	9:30	18	**Mkg** RSg RRFB InSgn Cex RCwk	Y	
4.3SG	I	SBGR to Parker	SBFR	N	N	N	1	1		N	20 ADV	Y N	10:00	10	Mkg RSg RRFB InSgn Cex RCwk	Y	
18.2	I	EBOFR Parker	EBFR	W	N	Y	1	1		N	45	Y N	10:05	10	Mkg RSg RRFB InSgn Cex RCwk	Y	
13.2	I	Archerwood	Exchange	N	N	Y	1	2		Y	30	Y N	12:40	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Exchange	S	N	Y	1	2		Y	30	Y N	12:40	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Parking	N	N	Y	1	2		Y	30	Y N	12:50	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Parking	S	N	Y	1	2		Y	30	Y N	12:50	11	Mkg **RSg** RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Ozark	N	N	Y	1	2		N	30	Y N	12:55	11	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	Archerwood	Ozark	S	N	Y	1	2		N	30	Y N	12:55	11	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I	NBR to Parker	US 75 NBFR	E	N	N	1	1		N	20 ADV	Y N	8:35	9	Mkg RSg RRFB InSgn Cex RCwk	Y	
✓	I M	Dobie Dr	K Ave	E		N	1	2	0	Y	30	Y N	11:00	6	Mkg RSg RRFB InSgn Cex RCwk	✓	
	I M	~~22nd~~	~~K Ave~~	W		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Ozark Dr~~	Archerwood St	W		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Exchange Dr~~	Archerwood St	W		Y	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Archerwood St~~	~~Exchange Dr~~	N		Y	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Archerwood St~~	~~Exchange Dr~~	S		Y	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
H –	I M	Archerwood St	E Park Blvd	N		N	1	3	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Exchange Dr~~	N Central Expy	E		N	1	2	0	N		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Ozark Dr	N Central Expy	E		N	1	2	0	Y		Y N			Mkg RSg RRFB InSgn Cex RCwk		
	(I) M	K AVE	DOBIE	W/E	N	Y	3 (1)	8	2'	Y	40	Y N	11:00	6	~~Mkg RSg RRFB InSgn Cex RCwk~~	✓	
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
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	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
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	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Legend:
Complete in office, confirm in field
Confirm in field

* if ADT is not avail.

Condition Options:
Mkg = Markings
Rsg = Roadside signage
RRFB = Rapid Flash Rect. Beacon
InSgn = In-street signs
Cex = Curb extensions
RCwk = Raised crosswalk

LEE ENGINEERING
Unsignalized Crossings

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Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Signalized Crossings

Date July, ~~3rd~~ 25th 2018 Station Area Parker Rd Staff Name

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	If Signalized: Permitted: Left Turns?	Right Turns?	Countdown Ped. Signals?	Pushbuttons: Functional?	w/ APS Signals?	>1 Refuge Island?	No. of Lanes Crossed at Once	>4 legs or high skew	Closed or limited x-walks	Channelized Right Turns	Photo(s)?	Notes
	I	NB 75 off ramp	N Parker	SE	N	Y		2		Y	N	N	N	Y	N	-	2	N	Y	N	Y	
7.15	I	SB 75 on ramp	W Parker	SW	N	Y		1		Y	N	N	N	Y	N	-	1	Y	Y	N	Y	
✓	I M	K Ave	E Parker Rd	N	N	Y	3	6	0	Y	Y	Y	Y	NO	N		7	N		Y	✓	Not working signal
✓	I M	K Ave	E Parker Rd	E	N	Y	3	6	0	Y	Y	Y	Y	✓	N	–	6	N		N	✓	
✓	I M	E Parker Rd	K Ave	S	N	Y	3	6	0	Y	Y	Y	✓	✓	N	–	6	N	–	Y	✓	
✓	I M	E Parker Rd	K Ave	W	N	Y	3	6	0	Y	Y	Y	Y	✓	N	–	7	N		Y	✓	Median blocks crosswalk (north cross)
	I M	K Ave	E Park Blvd	N		Y	3	6	1	Y												
	I M	K Ave	E Park Blvd	S		Y	3	6	1	Y												
	I M	E Park Blvd	K Ave	E		Y	3	6	1	Y												
	I M	E Park Blvd	K Ave	W		Y	3	6	1	Y												
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Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

Legend:
Complete in office, confirm in field
Confirm in field

LEE ENGINEERING

Signalized Crossings

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Field Data Checklist - Signalized Crossings

Date July, ~~3rd~~ 25th 2018 Station Area Parker Rd Staff Name

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	If Signalized: Permitted: Left Turns?	Right Turns?	Countdown Ped. Signals?	Pushbuttons: Functional?	w/ APS Signals?	>1 Refuge Island?	No. of Lanes Crossed at Once	>4 legs or high skew	Closed or limited x-walks	Channelized Right Turns	Photo(s)?	Notes
	I	NB 75 off ramp	N Parker	SE	N	Y		2		Y	N	N	N	Y	N	-	2	N	Y	N	Y	
7.15	I	SB 75 on ramp	W Parker	SW	N	Y		1		Y	N	N	N	Y	N	-	1	Y	Y	N	Y	
	I M	K Ave	E Parker Rd	N		Y	3	6	0	Y												
	I M	K Ave	E Parker Rd	E		Y	3	6	0	Y												
	I M	E Parker Rd	K Ave	S		Y	3	6	0	Y												
	I M	E Parker Rd	K Ave	W		Y	3	6	0	Y												
	I M	K Ave	E Park Blvd	N		Y	3	6	1	Y												
	I M	K Ave	E Park Blvd	S		Y	3	6	1	Y												
	I M	E Park Blvd	K Ave	E		Y	3	6	1	Y												
	I M	E Park Blvd	K Ave	W		Y	3	6	1	Y												
	I M	Parker	Archerwood	W	N	N	3	7	3	Y	Y	Y	N	Y	N	N	~~4~~ 7	N	N	N	Y	SB FYA left turn w/ ped walk
	I M	"	"	E	↓	↓	~~6~~ 3	~~8~~ 7	3	N	Y	Y	↓	N	↓	↓	7	↓	Y	N	Y	NB FYA ↑ but no ped sig. or PB
	I M	"	"	N	↓	↓	2	3	4	Y			↓	↓	↓	↓	3	↓	N	Y	Y	No stop sign/yield or X-walk across ch. RT (only stop bar)
	I M	"	"	S			2	3	0	Y							3		N	N	Y	only 1 ramp per corner
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Ped signal but not countdown

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

Legend:
Complete in office, confirm in field
Confirm in field

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Signalized Crossings

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Stations

Date 7/31/18
Station Downtown Plano
Staff Name

Sketch bike & pedestrian observed travel & desire lines on aerial photo inserted below: ☐
(Zoom out 1/2 block beyond station perimeter)

Are any desire lines missing a marked crossing location on a perimeter street, especially if mid-block? *(If Yes, note on sketch and add line with "New" link ID on Crossings Checklist)* (Y) N
Note bike parking locations (covered vs. rack vs. bikeshare) ✓
Do any travel routes differ significantly from linear desire lines? Y (N)
Note car & bus circulation patterns & conflict points ✓
Bike and ped desire lines continuously lit? (Note where if not). (Y) N
Trip hazards? N
Landscaping barriers? N
Fences? N
Absent ramps? ✓
Bike/Pedestrian sight distance problems? N
Review questions (Post Construction Column) from p. 6-7 of Ped RSA Checklist Y
Other Notes: noted

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DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Signalized Crossings

Parker Rd Staff Name

Date July 30 2018 Station Area Parker Rd

* median

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	Permitted Left Turns?	Permitted Right Turns?	Countdown Ped. Signals?	Pushbuttons Functional?	Pushbuttons w/ APS Signals?	If Signalized >1 Refuge Island?	If Signalized No. of Lanes Crossed at Once	If Signalized >4 legs or high skew	If Signalized Closed or limited x-walks	If Signalized Channelized Right Turns	Photo(s)?	Notes
	I	NB 75 off ramp	N Parker	SE	N	Y		2		Y	N	N	N	Y	N	-	2	N	Y	N	Y	
7.15	I	SB 75 on ramp	W Parker	SW	N	Y		1		Y	N	N	N	Y	N	-	1	Y	Y	N	Y	
	(O) M	K Ave	E Parker Rd	N*	(N)	Y*	3	6	0	Y	Y	Y	N	Y	N	N	6	Y	Y	N	Y	x-walk on E side
	(O) M	K Ave	E Parker Rd	E*	(N)	Y*	3	6	0	Y	Y	Y	N	Y	N	N	6	Y	Y	N	Y	x-walk on E side
	(O) M	E Parker Rd	K Ave	S*	(N)	Y*	3	6	0	Y	Y	Y	N	Y	N	N	6	Y	Y	N	Y	x-walk on E side
	(O) M	E Parker Rd	K Ave	W*	(N)	Y*	3	6	0	Y	Y	Y	N	Y	N	N	6	Y	Y	N	Y	x-walk on E side
	I M	K Ave	E Park Blvd	N		Y	3	6	1	Y												
	I M	K Ave	E Park Blvd	S		Y	3	6	1	Y												
	I M	E Park Blvd	K Ave	E		Y	3	6	1	Y												
	I M	E Park Blvd	K Ave	W		Y	3	6	1	Y												
	(O) M	Park	Exchange	S	N	N*	3	6	0	Y	Y	Y	N	Y	N	-	1	Y	Y	N	Y	Parker W. didn't Yield to EBRT bicycle/Ped & need Ch. See P.B. Wrong side of the RR.
	(O) M	Park	Exchange	N	N	N*	1	3	0	Y	Y	Y	N	Y	N	-	3	N	Y	N	Y	
	(O) M	Exchange	Park	N	N	N*	1	3	0	Y	Y	Y	N	Y	N	-	3	N	Y	N	Y	
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Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

Legend:
Complete in office, confirm in field
Confirm in field

*All lanes for 2-way street

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc-4/guide_to_improve_uncontrolled_crossings.pdf

Signalized Crossings

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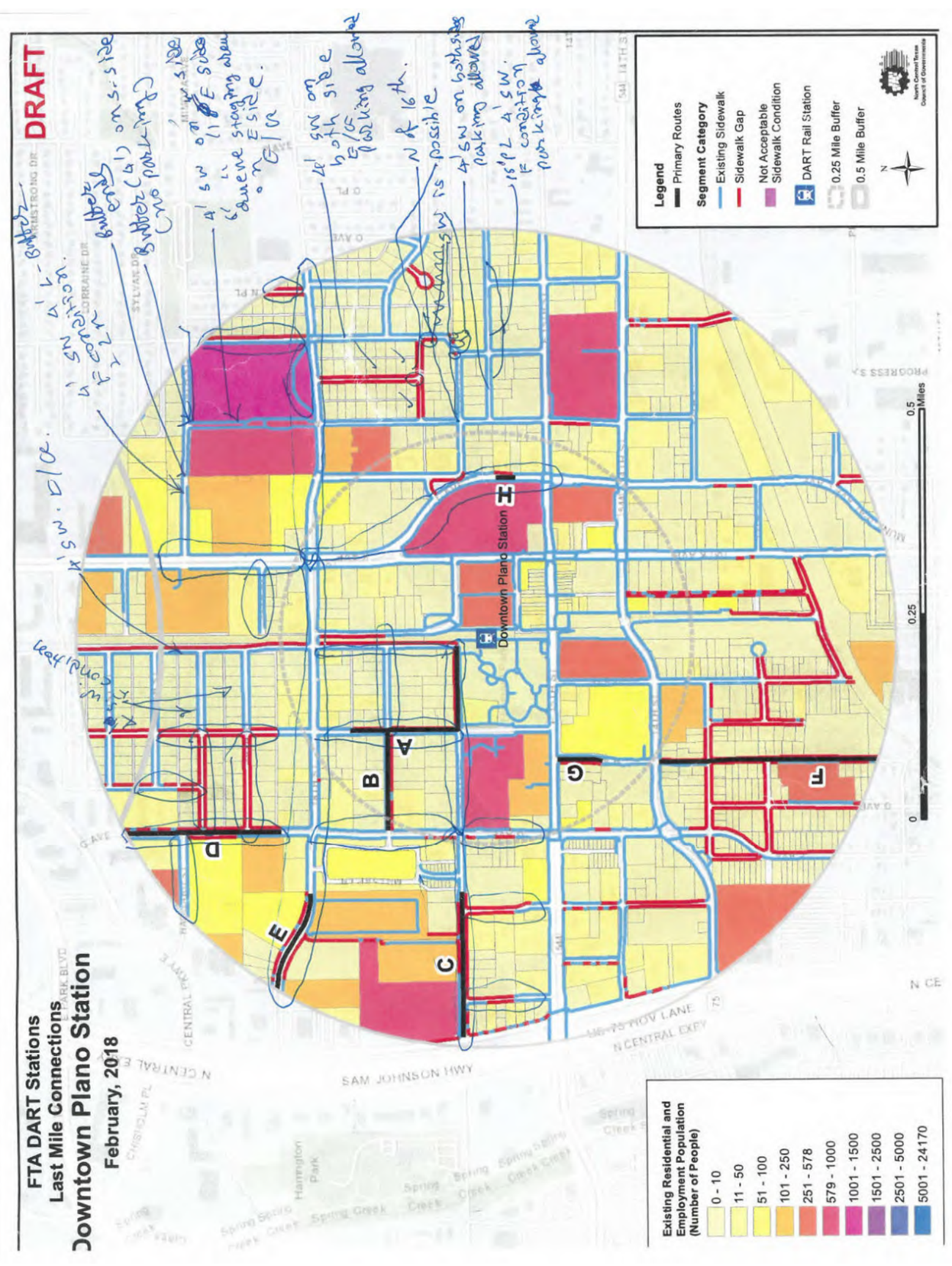
7/31

Downtown Plano

C. Parking Areas/Adjacent Developments

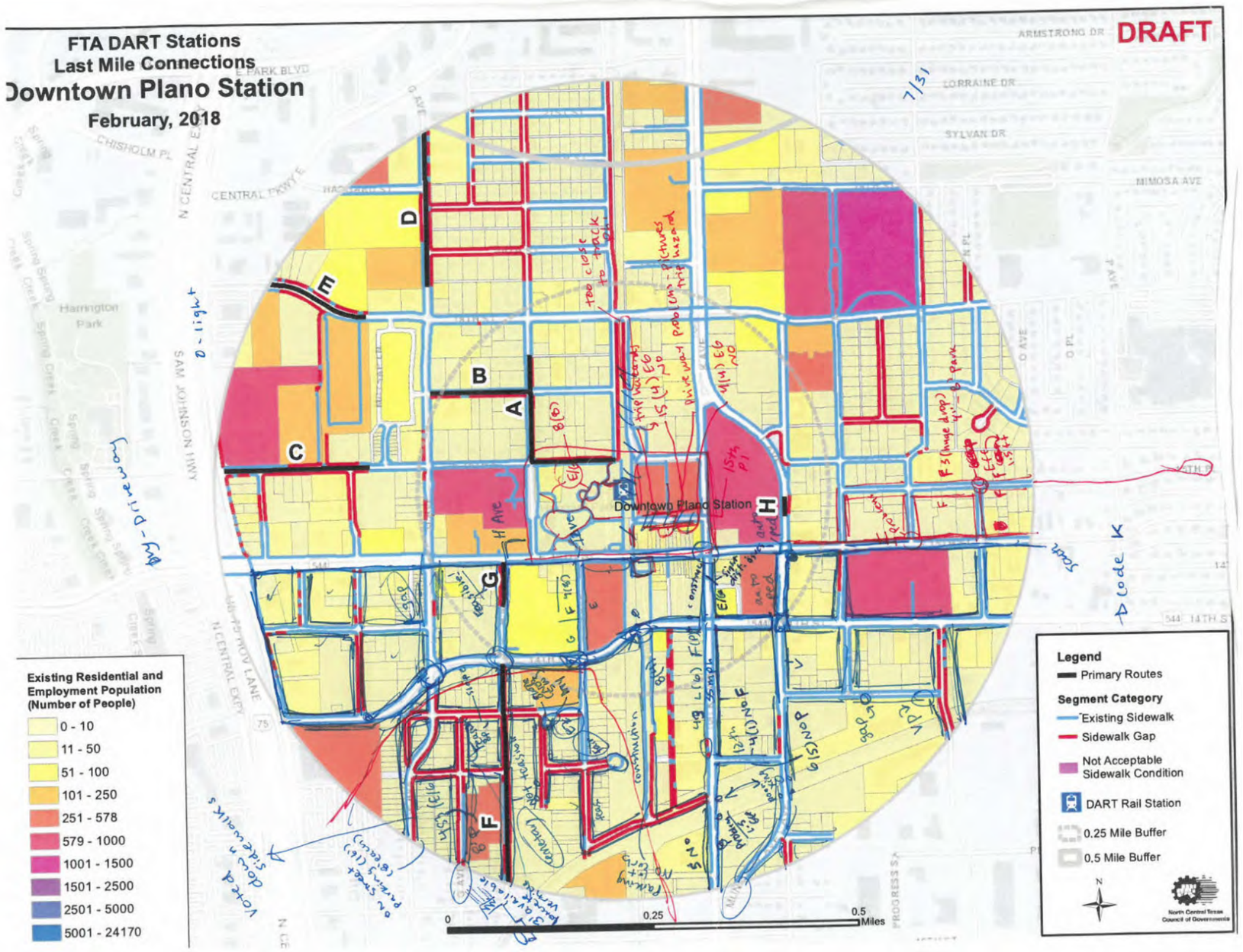
Master Prompt		Detailed Prompt	RSA Stages			
			planning	design	construction	post-construction
C.1 Presence, Design, and Placement	C.1.1	Do sidewalks/paths connect the street and adjacent land uses?	✔	✔	✔	✔
	C.1.2	Are the sidewalks/paths designed appropriately?		✔	✔	✔
	C.1.3	Are buildings entrances located and designed to be obvious and easily accessible to pedestrians?	✔	✔	✔	✔
C.2 Quality, Condition, and Obstructions	See prompts in Section **A** for potential issues on obstructions and protruding opbjects that apply to sidewalks and walkways at parking areas/adjacent developments					
	See prompts in Section **A** for potential issues on surface conditions that apply to sidewalks and walkways at parking areas/adjacent developments					
	C.2.1	Do parked vehicles obstruct pedestrian paths?				✔
C.3 Continuity and Connectivity	C.3.1	Are pedestrian facilities continuous? Do they provide adequate connections for pedestrian traffic?	✔	✔	✔	✔
	C.3.2	Are transitions of pedestrian facilities between developments/projects adequate?		✔	✔	✔
C.4 Lighting	See prompts in Section **A and B** for potential issues on lighting that apply to sidewalks and walkways at parking areas/adjacent developments					
C.5 Visibility	C.5.1	Are visibility and sight distance adequate? ✔	✔	✔	✔	✔
C.6 Access Management	C.6.1	Are travel paths for pedestrians and other vehicle modes clearly delineated at access openings? ✓	✔	✔	✔	✔
	C.6.2	Do drivers look for and yield to pedestrian when turning into and out of driveways?			✔	✔
C.7 Traffic Characteristics	C.7.1	Does pedestrian or driver behavior increase the risk of a pedestrian collision?				✔
	C.7.2	Are buses, cars, bicycles, and pedestrians separated on the site and provided with their own designated areas for travel?	✔	✔	✔	✔
C.8 Signs and Pavement Markings	C.8.1	Are travel paths and crossing points for pedestrians properly signed and/or marked?		✔	✔	✔

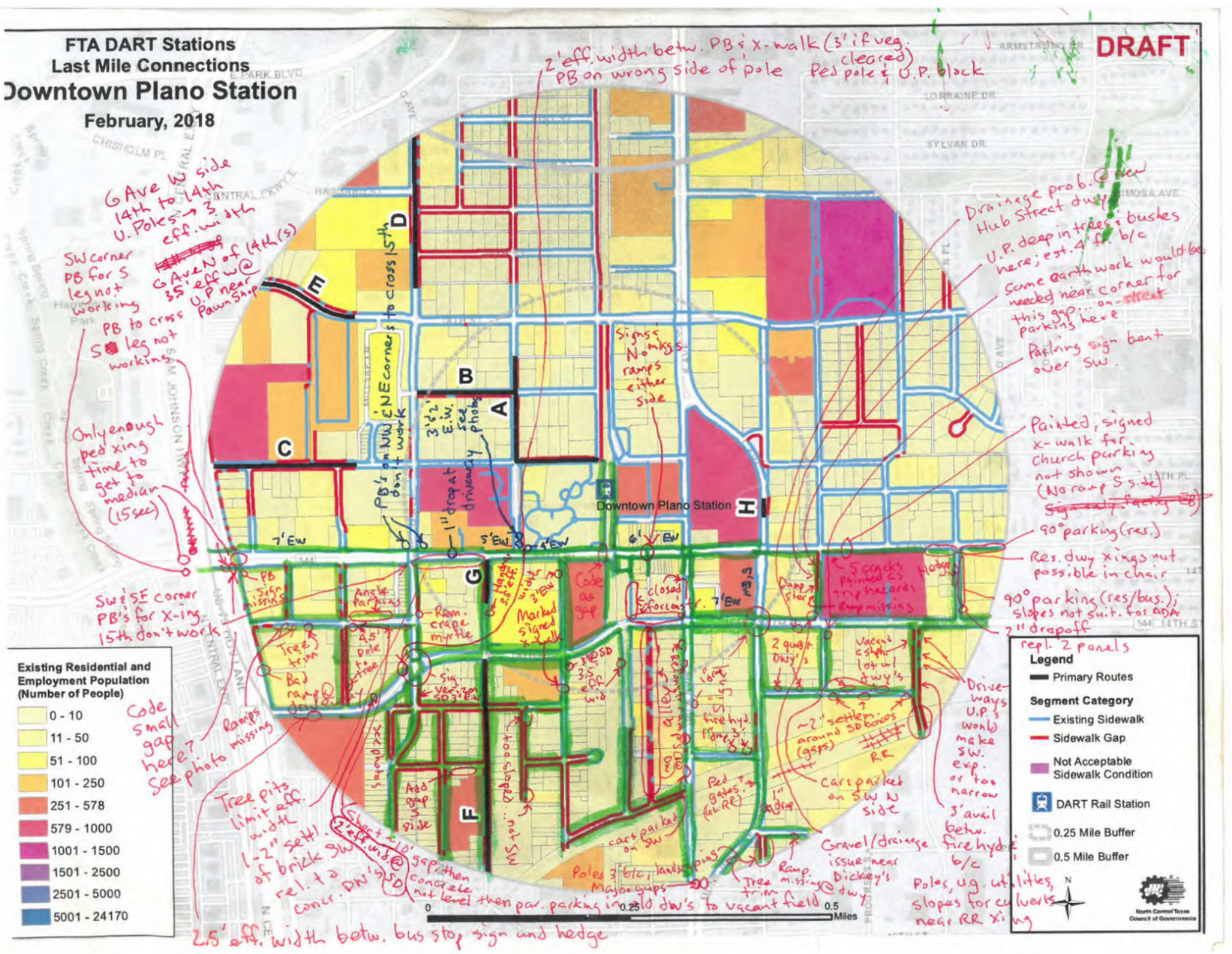
- light traffic at/around station
- NO @ station buses / drop offs



FTA DART Stations
Last Mile Connections
Downtown Plano Station
February, 2018

DRAFT





DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalks

Date 7/31 | Station Area | Downtown Plano | Staff Name Morgan & Josh

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width Actual	Sidewalk Width Eff.	Curb & Gutter?	Buffer (ft) Type	Buffer (ft) Width	Prevailing Speed or Speed Limit (mph)	Street Widths On-Street Parking	Street Widths Bike Lane	Street Widths Shoulder	Street Widths No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?	
51.1	13307	Municipal	11th	Railroad	E	4	4	Y	L	4.5	30	0	0	0	3	N	2	N	
52.1	14197	Municipal	11th	Railroad	W	4	4	Y	L	4.5	30	0	0	0	3	N	2	N	
51.2	13655	Municipal	Railroad	12th	E	4	2	Y	N	0	30	0	0	0	3	N	2	N	
52.2	13877	Municipal	Railroad	12th	W	4	4	Y	N	0	30	0	0	0	3	N	2	N	
52.35G		Municipal	12th	13th	W	0	0	Y	N	0	30	0	0	0	3	N	2	N	
51.3	13659	Municipal	12th	13th	E	4	4	Y	L	1	30	0	0	0	3	N	2	N	
52.4	13934	Municipal	13th	14th	W	4	4	Y	L	2.5	30	0	0	0	3	N	2	N	
51.4	13218	Municipal	13th	14th	E	4	4	Y	L	2	30	0	0	0	3	N	2	N	
52.5	13777	Municipal	14th		W	12	8	Y	T	4	30	0	0	0	3	N	2	Y	
51.5	14176	Municipal	14th		E	5.5	5.5	Y	N	0	30	0	0	0	3	N	2	N	
52.6	13611	Municipal		15th	W	25	6	Y	S	19	30		0	0	3	N	2	Y	
51.6	13436	Municipal		15th	E	4	4	Y	L	2	30	0	0	0	3	N	2	N	
52.7	13448	Municipal	15th	Parking Lot	W	4	4	Y	N	0	30	0	0	0	3	N	2	Y	
51.7	14182	Municipal	15th	Parking Lot	E	4	4	Y	N	0	30	0	0	0	3	N	2	Y	
52.8	13299	Municipal			W	4	4	Y	N	0	30	0	0	0	3	N	2	Y	
51.85G		Municipal			E	0	0	Y	S	3	30	0	0	0	3	N	2	Y	P.R. H
52.9	13757	Municipal	Parking Lot		W	4	4	Y	L	3	30	0	0	0	3	N	2	Y	
51.9	13529	Municipal	Parking Lot		E	4	4	Y	L	3	30	0	0	0	3	N	2	Y	
53.1	14130	Municipal	Parking Lot	L Ave	W	3.5	3.5	Y	L	3	30	0	0	0	3	N	2	Y	
52.1	13626	Municipal	Parking Lot	L Ave	E	4	4	Y	N	0	30	0	0	0	3	N	2	Y	
53.2	14052	Municipal	L Ave	K (SH 5) Ave	W	4	4	Y	L	4	30	0	0	0	3	N	2	Y	
52.2	13279	Municipal	L Ave	K (SH 5) Ave	E	4	4	Y	L	4	30	0	0	0	3	N	2	Y	
52.3	13212	Municipal	17th St	18th St	E	4	4	Y	L	4	30	0	0	0	3	N	2	Y	
52.4	13303	Municipal	18th St	19th	E	4	4	Y	L	3.5	40	0	0	0	3	N	3	N	
53.3	13779	K (SH 5) Ave	Municipal	17th St	W	3	3	Y	L	2	35	0	0	0	5	S	2	Y	
53.4	13411	K (SH 5) Ave	17th St	18th St	W	4	4	Y	L	3.5	35	0	0	0	5	S	2	Y	
53.5	13216	K (SH 5) Ave	18th St	18th Pl	W	4	4	Y	L	4	35	0	0	0	5	S	3	N	
53.6	14014	K (SH 5) Ave	18th Pl	19th St	W	4	4	Y	L	2.5	40	0	0	0	5	S	3	N	
54.15G		18th St	West Boundary	open lot	S	0	0	Y	N	0	30	0	0	0	4	-	3	N	P.R. E
54.2	14153	18th St	side road	town homes	S	4	4	Y	N	0	30	0	0	0	4	-	3	N	
54.3	14295	18th St	Rice Field	G Ave	S	10	5	Y	T	5	30		0	0	4	-	3	N	
54.4	14294	18th St	G Ave	H Ave	S	5	4	Y	N	0	30	0	0	0	4	-	3	N	
54.5	13900	18th St	H Ave		S	5	5	Y	N	0	30	0	0	0	4	-	3	N	
54.6	13714	18th St		I Ave	S	4	4	Y	L	4	30	0	0	0	4	-	3	N	
54.7	13552	18th St	J Ave	K Ave	S	4	4	Y	L	3	30	0	0	0	4	-	3	N	
55.15G		18th St	West Boundary	Rice Field	N	0	0	Y	N	0	30	0	0	0	4	-	3	N	
55.2	13983	18th St	Rice Field	G Ave	N	4	4	Y	N	0	30	0	0	0	4	-	3	N	
55.3	13274	18th St	G Ave		N	5	5	Y	N	0	30	0	0	0	4	-	3	N	
55.4	13317	18th St		H Ave	N	4	4	Y	L	1	30	0	0	0	4	-	3	N	
55.5	13927	18th St	H Ave	I Ave	N	4	4	Y	L	4	30	0	0	0	4	-	3	N	
55.6	13312	18th St	J Ave		N	5	5	Y	N	0	30	0	0	0	4	-	3	N	
55.7	13231	18th St		K Ave	N	4	4	Y	L	4	30	0	0	0	4	-	3	N	
56.1	13242	18th St	K Ave		N	4	4	Y	L	4	30	0	0	0	4	-	3	N	
56.2	14012	18th St		L Ave	N	5	5	Y	N	0	30	0	0	0	4	-	3	N	
56.3	13796	18th St	L Ave	M Ave	N	5	5	Y	N	0	30	0	6	0	2	-	3	N	
56.4	13301	18th St	M Ave	N Ave	N	3	3	Y	L	2	30	0	6	0	2	-	3	N	
56.5	13873	18th St	N Ave	Drainage Rd	N	7	1	Y	N	0	30	0	6	0	2	-	3	N	
56.6	13819	18th St	Drainage Rd	N Pl	N	5	4	Y	N	0	30	0	6	0	2	-	3	N	
56.7	13791	18th St	N Pl		N	4	4	Y	L	2	30	0	0	0	2	-	3	N	
57.1	13502	18th St	K Ave		S	4	4	Y	L	4	30	0	0	0	2	-	3	N	
57.2	13906	18th St		L Ave	S	5	5	Y	N	0	30	0	0	0	2	-	3	N	
57.3	13403	18th St	L Ave	M Ave	S	5	5	Y	N	0	30	0	6	0	2	-	3	N	
57.4	13879	18th St	M Ave	M Pl	S	4	4	Y	N	0	30	0	6	0	2	-	3	N	
57.5	13325	18th St	M Pl	N Ave	S	4	4	Y	N	0	30	0	0	0	2	-	3	N	
57.6	14112	18th St	N Ave	N Pl	S	4	4	Y	L	5	30	0	0	0	2	-	3	N	
57.7	13732	18th St	N Pl		S	4	4	Y	L	5	30	0	0	0	2	-	3	N	
58.1	13548	17th St	G Ave	H Ave	N	4	4	Y	N	0	30	0	0	0	2	-	2	N	
58.25G		17th St	G Ave	H Ave	S	0	0	Y	N	0	30	0	0	0	2	-	2	N	P.R. B
58.3	13432	17th St	H Ave	I Ave	N	4	4	Y	L	3	30	0	0	0	2	-	2	N	
58.4	13676	17th St	H Ave	I Ave	S	4	4	Y	L	4	30	0	0	0	2	-	2	N	

For Side of Street, choose:
N NE
S SE
E NW
W SW

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

*P.R. Primary Route

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.

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DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalks

Date | Downtown Plano

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Condition Selection	Sidewalk If N, is new SW feasible?*	Bicycle and Pedestrian Wayfinding?*	Notes	Photo(s)?	
51.1	13307	Municipal	11th	Railroad	E	F	Y N	Y N	Poor railroad Ped cross - grass over sidewalk	✓	
52.1	14197	Municipal	11th	Railroad	W	G	Y N	Y N			
51.2	13655	Municipal	Railroad	12th	E	G	Y N	Y N	grass over		
52.2	13877	Municipal	Railroad	12th	W	E/G	Y N	Y N			
52.35G		Municipal	12th	13th	W	N	Y N	Y N	open lot	✓	
51.3	13659	Municipal	12th	13th	E	P	Y N	Y N			
52.4	13934	Municipal	13th	14th	W	E/G	Y N	Y N			
51.4	13218	Municipal	13th	14th	E	E/G	Y N	Y N	grass overgrown with goood	✓	
52.5	13777	Municipal	14th		W	E/G	Y N	Y N			
51.5	14176	Municipal	14th		E	E/G	Y N	Y N			
52.6	13611	Municipal		15th	W	E/G	Y N	Y N			
51.6	13436	Municipal		15th	E	F	Y N	Y N			
52.7	13448	Municipal	15th	Parking Lot	W		Y N	Y N			
51.7	14182	Municipal	15th	Parking Lot	E		Y N	Y N			
52.8	13299	Municipal			W		Y N	Y N			
51.85G		Municipal			E	N	Y N	Y N			P.R. H
52.9	13757	Municipal	Parking Lot		W		Y N	Y N			
51.9	13529	Municipal	Parking Lot		E		Y N	Y N			
53.1	14130	Municipal	Parking Lot	L Ave	W		Y N	Y N			
52.1	13626	Municipal	Parking Lot	L Ave	E		Y N	Y N			
53.2	14052	Municipal	L Ave	K (SH 5) Ave	W		Y N	Y N			
52.2	13279	Municipal	L Ave	K (SH 5) Ave	E		Y N	Y N			
52.3	13212	Municipal	17th St	18th St	E		Y N	Y N			
52.4	13303	Municipal	18th St	19th	E		Y N	Y N			
53.3	13779	K (SH 5) Ave	Municipal	17th St	W		Y N	Y N			
53.4	13411	K (SH 5) Ave	17th St	18th St	W		Y N	Y N			
53.5	13216	K (SH 5) Ave	18th St	18th Pl	W		Y N	Y N			
53.6	14014	K (SH 5) Ave	18th Pl	19th St	W		Y N	Y N			
54.15G		18th St	West Boundary	open lot	S	N	Y N	Y N			P.R. E
54.2	14153	18th St	side road	town homes	S		Y N	Y N			
54.3	14295	18th St	Rice Field	G Ave	S		Y N	Y N			
54.4	14294	18th St	G Ave	H Ave	S		Y N	Y N			
54.5	13900	18th St	H Ave		S		Y N	Y N			
54.6	13714	18th St		I Ave	S		Y N	Y N			
54.7	13552	18th St	J Ave	K Ave	S		Y N	Y N			
55.15G		18th St	West Boundary	Rice Field	N	N	Y N	Y N			
55.2	13983	18th St	Rice Field	G Ave	N		Y N	Y N			
55.3	13274	18th St	G Ave		N		Y N	Y N			
55.4	13317	18th St		H Ave	N		Y N	Y N			
55.5	13927	18th St	H Ave	I Ave	N		Y N	Y N			
55.6	13312	18th St	J Ave		N		Y N	Y N			
55.7	13231	18th St		K Ave	N		Y N	Y N			
56.1	13242	18th St	K Ave		N		Y N	Y N			
56.2	14012	18th St		L Ave	N		Y N	Y N			
56.3	13796	18th St	L Ave	M Ave	N		Y N	Y N			
56.4	13301	18th St	M Ave	N Ave	N		Y N	Y N			
56.5	13873	18th St	N Ave	Drainage Rd	N		Y N	Y N			
56.6	13819	18th St	Drainage Rd	N Pl	N		Y N	Y N			
56.7	13791	18th St	N Pl		N		Y N	Y N			
57.1	13502	18th St	K Ave		S		Y N	Y N			
57.2	13906	18th St		L Ave	S		Y N	Y N			
57.3	13403	18th St	L Ave	M Ave	S		Y N	Y N			
57.4	13879	18th St	M Ave	M Pl	S		Y N	Y N			
57.5	13325	18th St	M Pl	N Ave	S		Y N	Y N			
57.6	14112	18th St	N Ave	N Pl	S		Y N	Y N			
57.7	13732	18th St	N Pl		S		Y N	Y N			
58.1	13548	17th St	G Ave	H Ave	N		Y N	Y N			
58.25G		17th St	G Ave	H Ave	S	N	Y N	Y N			P.R. B
58.3	13432	17th St	H Ave	I Ave	N		Y N	Y N			
58.4	13676	17th St	H Ave	I Ave	S		Y N	Y N			

For Side of Street, choose:
N NE
S SE
E NW
W SW

Condition Options:
E/G = Excellent/Good
F = Fair
P = Poor
VP = Very Poor
N = Nonexistent

*Add photos of each sign; sketch signing and

*P.R. Primary Route

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges See http://www.oregon.gov/ODOT/Planning/Do

LEE ENGINEERING or more details.

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width Actual	Sidewalk Width Eff.	Curb & Gutter?	Buffer (ft) Type	Buffer (ft) Width	Prevailing Speed or Speed Limit (mph)	Street Widths On-Street Parking	Street Widths Bike Lane	Street Widths Shoulder	Street Widths No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?	
	13768	H Ave	15th St	Street Parking	W	4	4	Y	L	4	30	0	0	0	2	-	2	N	
	13739	H Ave	Street Parking	16th St	W	6	6	Y	L	2	30	40	0	0	2	-	2	N	
	13226	H Ave	15th St	Street Parking	E	6	6	Y	L	1	30	0	0	0	2	-	2	N	
	13226	H Ave	Street Parking	16th St	E	6	6	Y	L	10	30	40	0	0	2	-	2	N	
	13207	H Ave	16th St	17th St	W	4	4	Y	L	8	30	16	0	0	2	-	2	N	
		H Ave	16th St	17th St	E	0	0	Y	N	0	30	16	0	0	2	-	2	N	
	13308	H Ave	17th St	18th St	W	4	4	Y	L	8	30	16	0	0	2	-	2	N	P.R. A
		H Ave	17th St	Drainage	E	0	0	Y	N	0	30	16	0	0	2	-	2	N	
	14293	H Ave	Drainage	18th St	E	6	6	Y	N	0	30	16	0	0	2	-	2	N	
	13350	H Ave	18th St	sidewalk gap	W	4	4	Y	L	6	30	16	0	0	2	-	2	N	
	14040	H Ave	18th St	sidewalk gap	E	4	4	Y	L	6	30	16	0	0	2	-	2	N	
		H Ave	sidewalk gap	22nd St	W	0	0	Y	N	0	30	16	0	0	2	-	2	N	
		H Ave	sidewalk gap	22nd St	E	0	0	Y	N	0	30	16	0	0	2	-	2	N	
59.1	14155	16th St	Central EXPY	E Ave	N	5	5	Y	N	0	30	16	0	0	2	-	3	N	
60.15G		16th St	Central EXPY	E Ave	S	0	0	Y	N	0	30	16	0	0	2	-	3	N	
59.2	13464	16th St	E Ave		N	5	5	Y	N	0	30	16	0	0	2	-	3	N	P.R. C
59.35G		16th St		F Ave	N	0	0	Y	N	0	30	16	0	0	2	-	3	N	
60.25G		16th St	E Ave	F Ave	S	0	0	Y	N	0	30	16	0	0	2	-	3	N	
59.4	13451	16th St	F Ave		N	5	5	Y	N	0	30	8	0	0	2	-	3	N	
60.35G		16th St	F Ave		S	0	0	Y	N	0	30	8	0	0	2	-	3	N	
59.5	14089	16th St		G Ave	N	10	4	Y	T	6	30	0	0	0	2	-	3	N	
60.4	13561	16th St		G Ave	S	5	5	Y	N	0	30		0	0	2	-	3	N	
59.6	13802	16th St	G Ave	H Ave	N	5	5	Y	N	0	30	0	0	0	2	-	3	N	
60.5	13804	16th St	G Ave		S	4	4	Y	L	1	30	0	0	0	2	-	3	N	
60.6	14062	16th St		H Ave	S	4	4	Y	L	10	30	0	0	0	2	-	3	N	
59.75G		16th St	H Ave	I Ave	N	0	0	Y	N	0	30	0	0	0	2	-	3	N	
60.75G	14290	16th St	H Ave	I Ave	S	0	0	Y	N	0	30	0	0	0	2	-	3	N	P.R. A
61.1	13509	I Ave	16th St	17th St	W	5	5	Y	L	4	30	0	0	0	2	-	2	N	
61.2	13987	I Ave	17th St	18th St	W	5	5	Y	L	4	30	0	0	0	2	-	2	N	
61.35G		I Ave	16th St	18th St	E	0	0	Y	N	0	30	0	0	0	2	-	2	N	
62.1	14160	E 15th St	Central EXPY	G Ave	N	10	6	Y	S	4	30	~~6~~ 10	0	0	3	-	3	Y	
62.2	14038	E 15th St	G Ave	H Ave	N	8	6	Y	N	0	30	~~6~~ 10	0	0	4	-	3	Y	
62.3	13497	E 15th St	H Ave	I Ave	N	8	5	Y	N	0	30	~~8~~ 10	0	0	3	-	3	Y	
62.4	13497	E 15th St	I Ave	Alex Schell	N	6	6	Y	N	0	30	0	0	0	3	-	3	N	
62.5	13939	E 15th St	J Ave	K Ave	N	8	4	Y	N	0	30		0	0	2	-	3	N	
62.6	13503	E 15th St	K Ave		N	8	4	Y	N	0	30	0	0	0	2	-	3	N	
62.7	13869	E 15th St			N	5	5	Y	N	0	30		0	0	2	-	3	N	
62.8	13490	E 15th St		Municipal	N	5	5	Y	L	3	30	0	0	0	2	-	3	Y	
63.1	13861	E 15th St	Municipal	M Ave	N	4	~~4~~	Y	N	0	30	0	0	0	2	-	3	Y	
63.2	13457	E 15th St	M Ave	N Ave	N	~~8~~	~~6~~	Y	N	0	30	0	0	0	2	-	3	N	
63.3	13963	E 15th St	N Ave	O Avr	N	~~5~~	~~3.5~~	Y	N	0	30	0	0	0	2	-	3	N	
63.4	13600	E 15th St	O Ave		N	~~3.5~~	~~3.5~~	Y	N	0	30	0	0	0	2	-	3	N	pole
64.1	13452	E 15th St	Central EXPY	F	S	~~12~~	~~5~~	Y	L	~~10~~	30	0	0	0	~~5~~	-	3	Y	
64.2	14177	E 15th St	F	G Ave	S	~~12~~	~~5~~	Y	S	0	30	0	0	0	~~4~~	-	3	Y	
64.3	13228	E 15th St	G Ave	I Ave	S	~~10~~	~~5~~	Y	S	0	30	~~20~~	0	0	~~4~~	-	3	Y	
64.4	13800	E 15th St	I Ave	Municipal	S	~~12~~	~~6~~	Y	L	4	30	0	0	0	~~4~~	-	~~2~~	Y	
65.1	13982	E 15th St	Municipal	M Ave	S	6	~~3.4~~	Y	N	0	30	0	0	0	2	-	~~2~~	Y	
65.2	13612	E 15th St	M Ave	N Ave	S	4	4	Y	N	0	30		0	0	2	-	3	Y	
65.3	13823	E 15th St	N Ave	Parking Lot	S	5	~~4~~	Y	N	0	30	0	0	0	2	-	3	N	
65.4	13550	E 15th St	Parking Lot		S	5	~~3.5~~	Y	N	0	30	0	0	0	2	-	3	N	
65.5	13890	E 15th St		O Ave	S	4	~~3.5~~	Y	N	0	30	0	0	0	2	-	3	N	
65.6	13399	E 15th St	O Ave		S	5	~~3~~	Y	N	0	30	0	0	0	2	-	3	N	
66.1	13376	13th St	Central EXPY	F Ave	N	5	5	Y	N	0	30	0	0	0	2	-	2	N	
67.1	13210	13th St	Central EXPY	F Ave	S	4	4	Y	N	0	30	0	0	0	2	-	2	N	
66.2	14074	13th St	F Ave	G Ave	N	5	5	Y	N	0	30	0	0	0	2	-	2	N	
67.2	13290	13th St	F Ave	G Ave	S	4	4	Y	N	0	30	0	0	0	2	-	2	N	
66.3	13694	14th St	G Ave	I Ave	N	5	5	Y	N	0	30	0	0	0	2	-	2	N	
67.3	13498	14th St	G Ave	I Ave	S	4	4	Y	L	12	30	0	0	0	2	-	2	N	
66.4	13258	14th St	I Ave	Railroad	N	7	7	Y	N	0	30	0	0	0	2	-	2	N	
67.4	13272	14th St	I Ave	Railroad	S	4	3	Y	N	0	30	0	0	0	2	-	2	N	
66.5	13390	14th St	Railroad	K Ave	N	~~6~~	~~6~~	Y	N	0	30	0	0	0	2	-	2	N	
67.5	13969	14th St	Railroad	K Ave	S	6	4	Y	N	0	30	0	0	0	2	-	2	N	
66.6	13722	14th St	K Ave	Municipal	N	12	6	Y	N	0	30		0	0	2	-	2	N	
67.6	13822	14th St	K Ave	Municipal	S	4	4	Y	N	0	30	0	0	0	2	-	2	N	
66.7	13991	14th St	Municipal		N	~~6~~	~~6~~	Y	N	0	30	0	0	0	2	-	2	N	
67.7	13414	14th St	Municipal		S	~~4~~	~~4~~	Y	L	8	30	0	0	0	2	-	2	N	
66.8	13540	14th St		M Ave	N	~~5~~	~~5~~	Y	N	0	35	0	0	0	4	-	2	N	
67.8	14032	14th St		M Ave	S	~~5~~	~~5~~	Y	N	0	35	0	0	0	4	-	2	N	
66.9	13712	14th St	M Ave	N Ave	N	4	4	Y	N	0	35	0	0	0	4	-	2	N	
67.9	13477	14th St	M Ave	N Ave	S	5	5	Y	N	0	35	0	0	0	4	-	2	N	
68.1	13233	14th St	N Ave	O	N	5	5	Y	N	0	35	0	0	0	4	-	2	N	
69.1	13771	14th St	N Ave	O	S	4	4	Y	N	0	35	0	0	0	4	-	2	N	

LEE ENGINEERING

13th N → M

13th N → M (gaps) VP VP 6(1) Y

M M W F 44 NO

M M G F 5(4) NO

For Side of Street, choose: N NE S SE E SW W NW

Buffer Types: N = None; S = Solid Surface; L = Landscaped; T = Landscaped w/ Trees; V = Vertical (retaining wall)

*All lanes for 2-way street

*P.R. Primary Route

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Condition Selection	Sidewalk If N, is new SW feasible?*	Bicycle and Pedestrian Wayfinding?*	Notes	Photo(s)?	
	13768	H Ave	15th St	Street Parking	W		Y N	Y N			
	13739	H Ave	Street Parking	16th St	W		Y N	Y N			
	13226	H Ave	15th St	Street Parking	E		Y N	Y N			
	13226	H Ave	Street Parking	16th St	E		Y N	Y N			
	13207	H Ave	16th St	17th St	W		Y N	Y N			
		H Ave	16th St	17th St	E	N	Y N	Y N			
	13308	H Ave	17th St	18th St	W		Y N	Y N			P.R. A
		H Ave	17th St	Drainage	E	N	Y N	Y N			
	14293	H Ave	Drainage	18th St	E		Y N	Y N			
	13350	H Ave	18th St	sidewalk gap	W		Y N	Y N			
	14040	H Ave	18th St	sidewalk gap	E		Y N	Y N			
		H Ave	sidewalk gap	22nd St	W	N	Y N	Y N			
		H Ave	sidewalk gap	22nd St	E	N	Y N	Y N			
59.1	14155	16th St	Central EXPY	E Ave	N		Y N	Y N			
60.15G		16th St	Central EXPY	E Ave	S	N	Y N	Y N			P.R. C
59.2	13464	16th St	E Ave		N		Y N	Y N			
59.35G		16th St		F Ave	N	N	Y N	Y N			
60.25G		16th St	E Ave	F Ave	S	N	Y N	Y N			
59.4	13451	16th St	F Ave		N		Y N	Y N			
60.35G		16th St	F Ave		S	N	Y N	Y N			
59.5	14089	16th St		G Ave	N		Y N	Y N			
60.4	13561	16th St		G Ave	S		Y N	Y N			
59.6	13802	16th St	G Ave	H Ave	N		Y N	Y N			
60.5	13804	16th St	G Ave		S		Y N	Y N			
60.6	14062	16th St		H Ave	S		Y N	Y N			
59.75G		16th St	H Ave	I Ave	N	N	Y N	Y N			P.R. A
60.75G	14290	16th St	H Ave	I Ave	S	N	Y N	Y N			
61.1	13509	I Ave	16th St	17th St	W		Y N	Y N			
61.2	13987	I Ave	17th St	18th St	W		Y N	Y N			
61.35G		I Ave	16th St	18th St	E	N	Y N	Y N			
62.1	14160	E 15th St	Central EXPY	G Ave	N		Y N	Y N			
62.2	14038	E 15th St	G Ave	H Ave	N		Y N	Y N			
62.3	13497	E 15th St	H Ave	I Ave	N		Y N	Y N			
62.4	13497	E 15th St	I Ave	Alex Schell	N		Y N	Y N			
62.5	13939	E 15th St	J Ave	K Ave	N		Y N	Y N			
62.6	13503	E 15th St	K Ave		N		Y N	Y N			
62.7	13869	E 15th St			N		Y N	Y N			
62.8	13490	E 15th St		Municipal	N		Y N	Y N			
63.1	13861	E 15th St	Municipal	M Ave	N	E/G	Y N	Y N	near M - slight slope - still G	✓	
63.2	13457	E 15th St	M Ave	N Ave	N	E/G	Y N	Y N	level problems w/ driveways & Eff Width	✓	
63.3	13963	E 15th St	N Ave	O Avr	N	P	Y N	Y N			
63.4	13600	E 15th St	O Ave		N	~~E~~ F P	Y N	Y N			
64.1	13452	E 15th St	Central EXPY		S	E/G	Y N	Y N			
64.2	14177	E 15th St		G Ave	S	F/G	~~Y~~ N	N	contractor sign on sidewalk		
64.3	13228	E 15th St	G Ave	I Ave	S	~~E~~ F/P	~~Y~~ N	N	1" discont. in elevation - bumps, crossings	✓	*
64.4	13800	E 15th St	I Ave	Municipal	S	E/G	~~Y~~ N	Y		✓	
65.1	13982	E 15th St	Municipal	M Ave	S	G/G	~~Y~~ N	Y	Fire hydrant - intersection ramp/3ft Eff	✓	
65.2	13612	E 15th St	M Ave	N Ave	S	~~E~~ F	Y N	Y N	~~parking obstruction A/Eff~~ moved	✓	~~Hyd~~ & ramp
65.3	13823	E 15th St	N Ave	Parking Lot	S	E/G	Y N	Y N			
65.4	13550	E 15th St	Parking Lot		S	E/G	Y N	Y N			
65.5	13890	E 15th St		O Ave	S	F	Y N	Y N			
65.6	13399	E 15th St	O Ave		S	F	Y N	Y N	Parking → No curb (driveway), slope	✓	- FH & pole
66.1	13376	13th St	Central EXPY	F Ave	N	E/G	Y N	Y N			
67.1	13210	13th St	Central EXPY	F Ave	S	E/G	Y N	Y N			
66.2	14074	13th St	F Ave	G Ave	N	G	Y N	Y N			
67.2	13290	13th St	F Ave	G Ave	S	~~E~~ E/G	Y N	Y N			
66.3	13694	14th St	G Ave	I Ave	N	F	Y N	Y N			
67.3	13498	14th St	G Ave	I Ave	S	E/G	Y N	Y N	wiggly sidewalk	✓	
66.4	13258	14th St	I Ave	Railroad	N	E/G	Y N	Y N			
67.4	13272	14th St	I Ave	Railroad	S	F	Y N	Y N	overgrown grass, Pole - gap (ramp/walk)	✓	
66.5	13390	14th St	Railroad	K Ave	N	E/G	Y N	Y N	construction		
67.5	13969	14th St	Railroad	K Ave	S	E/G	Y N	Y N			
66.6	13722	14th St	K Ave	Municipal	N	E/G	Y N	Y N			
67.6	13822	14th St	K Ave	Municipal	S	E/G	Y N	Y N			
66.7	13991	14th St	Municipal		N	E/G	Y N	Y N			
67.7	13414	14th St	Municipal		S	E G	Y N	Y N			
66.8	13540	14th St		M Ave	N	F	Y N	Y N	gravel over sidewalk / EZ fix		
67.8	14032	14th St		M Ave	S	~~E~~ E/G	Y N	Y N			
66.9	13712	14th St	M Ave	N Ave	N	E/G	Y N	Y N			
67.9	13477	14th St	M Ave	N Ave	S	E/G	Y N	Y N			
68.1	13233	14th St	N Ave	O	N	E/G	Y N	Y N			
69.1	13771	14th St	N Ave	O	S	E/G	Y N	Y N			

LEE ENGINEERING

G 14th 13 E N 44 G

G 14th 13 E

G 13 12 W

G 13 12 E

G 12 South W

G 12 South E

For Side of Street, choose: N NE S SE E NW W SW

Condition Options: E/G = Excellent/Good; F = Fair; P = Poor; VP = Very Poor; N = Nonexistent

*Add photos of each sign; sketch signing and

*P.R. Primary Route

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width Actual	Sidewalk Width Eff.	Curb & Gutter?	Buffer (ft) Type	Buffer (ft) Width	Prevailing Speed or Speed Limit (mph)	Street Widths On-Street Parking	Street Widths Bike Lane	Street Widths Shoulder	Street Widths No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?	
70.1	13217	F Ave	South Boundary	12th St	W	5	5	Y	S	2	30	0/6	0	0	2	-	1	N	
70.25G		F Ave	South Boundary	12th St	E	0	0	Y	N	0	30	0/6	0	0	2	-	1	N	
70.3	13975	F Ave	12th St	13th St	W	5	5	Y	N	0	30	0/6	0	0	2	-	1	N	
70.45G		F Ave	12th St	13th St	E	0	0	Y	N	0	30	0/6	0	0	2	-	1	N	
71.15G		G Ave	13th St	14th St	W	0	0	Y	N	0	30	0	0	0	2	-	2	N	
71.2	13471	G Ave	13th		E	4	1.5	Y	L	5	30	0	0	0	2	-	2	N	
71.35G		G Ave		14th St	E	0	0	Y	N	0	30	0	0	0	2	-	2	N	
71.4	13951	H Ave	South Boundary	12th St	W	5	5	Y	L	4	30	0	0	0	2	-	2	N	
71.55G		H Ave	12th St	13th St	W	0	0	Y	N	0	30	0	0	0	2	-	2	N	P.R. F
71.6	13607	H Ave	13th St	14th St	W	6	4	Y	N	0	30	0	0	0	2	-	2	N	
71.75G		H Ave	South Boundary	14th St	E	0	0	Y	N	0	30	0	0	0	2	-	2	N	
	13378	H Ave	14th St	open lot	W	5	5	Y	N	0	30	16	0	0	2	-	3	N	
		H Ave	open lot	15th St	W	0	0	Y	N	0	30	16	0	0	2	-	3	N	P.R. G
	14220	H Ave	14th St	15th St	E	5	5	Y	N	0	30	16	0	0	2	-	3	N	
	13482	G Ave	North Boudary	Haggard St	W	4	4	Y	L	3	30	0	0	0	4	-	3	N	
		G Ave	North Boudary	Haggard St	E	0	0	Y	N	0	30	0	0	0	4	-	3	N	P.R. D
		G Ave	Haggard St	19th St	W	0	0	Y	N	0	30	0	0	0	4	-	3	N	
		G Ave	Haggard St	19th St	E	0	0	Y	N	0	30	0	0	0	4	-	3	N	
	13513	G Ave	19th St	18th St	W	8	8	Y	N	0	30	0	0	0	4	-	3	N	
		G Ave	19th St	Parking Lot	E	0	0	Y	N	0	30	0	0	0	4	-	3	N	
	14206	G Ave	Parking Lot	18th St	E	6	6	Y	N	0	30	0	0	0	4	-	3	N	
	14282	G Ave	18th St	17th St	W	8	5	Y	N	0	30	16	0	0	2	-	3	N	
	14283	G Ave	18th St	17th St	E	6	6	Y	N	0	30	16	0	0	2	-	3	N	
	14282	G Ave	17th St	Dentist	W	8	5	Y	N	0	30	0	0	0	2	-	3	N	
		G Ave	Dentist	16th St	W	0	0	Y	N	0	30	0	0	0	2	-	3	N	
		G Ave	17th St	Parking Lot	E	0	0	Y	N	0	30	0	0	0	4	-	3	N	
	14279	G Ave	Parking Lot	16th St	E	4	4	Y	L	0	30	0	0	0	4	-	3	N	
		G Ave	16th St	Parking Lot	W	0	0	Y	N	0	30	0	0	0	4	-	3	N	
	14190	G Ave	Parking Lot	15th St	W	5	2	Y	N	0	30	0	0	0	4	-	3	N	
	13469	G Ave	16th St	15th St	E	6	3.5	Y	N	0	30	0	0	0	4	-	3	N	
	13936	G Ave	15th St	14th St	W	11	8	Y	N	0	30	0	0	0	4	-	3	N	
	13783	G Ave	15th St	open lot	E	9	5	Y	N	0	30	0	0	0	4	-	3	N	
		G Ave	open lot	Parking Lot	E	0	0	Y	N	0	30	0	0	0	4	-	2	N	
	13374	G Ave	Parking Lot	14th St	E	5	5	Y	N	0	30	0	0	0	4	-	2	N	
		Expy	15th	14th	E	6	6	Y	L	3		1	1	1	3	-	1 2 3 4	N	
			14th	Fish n trail	E	0	0	Y	N	0						-	1 2 3 4	N	
					E	4	4	Y	L	5		1	1	1			1 2 3 4		
		Expy	underpass		N	15	15	Y	N								1 2 3 4	N	
		" "	" "		S	10	4	Y	N	0							1 2 3 4	N	
1		13th/14th C	Expy	Parking	N	5	5	Y	N	0	30				2		1 2 3 4	N	
2		"	"	"	S	4	2.5	Y	N	0	30				2		1 2 3 4	N	
3		F Ave	Parking	F Ave	N	5	5	Y	N	0	30				2		1 2 3 4		
4		F Ave	13/14	14	W	0	0	N	NO	0	30	16 (1)			2		1 2 3 4		
5		F Ave	13/14	14	E	0	0	N	N	0	30	16 (1)			2		1 2 3 4		
6		F	14		W	0	0	Y	N	0	30	16 (1)			2		1 2 3 4		
7		F	14		E	0	0	Y	N	0	30	16 (1)			2		1 2 3 4		
8		14th		F	N	5	5	Y	N	0		16			2		1 2 3 4		
9		14th		F	S	5	5	Y	N	0		16			2		1 2 3 4		
10		14th	central	Parking	N	4	4	Y	L	6		0					1 2 3 4		
11		14th	central	Parking	S	0	0	Y	N	0		0			2		1 2 3 4		
12		E Ave	14th	15th	W	0	0/2	Y	N	0		0			2		1 2 3 4		
13		E Ave	14th	15th	E	4	4	Y	L	3		0			2		1 2 3 4		
14		F Ave	15	14	W	0	0	Y	NC	0		8			2		1 2 3 4	L	
15		F Ave	15	14	E	5	3.5	Y	N	0		8			2		1 2 3 4		
16		14th	F		N	0	0	Y				8					1 2 3 4		
17		14th	F		S	4	1	N	N	0	30	8					1 2 3 4		
18		O Ave	15th	14th	W	5	4	Y	N	0		16			2		1 2 3 4		
19		O Ave	15th	apt	E	6	4/2	Y	N	0		16			2		1 2 3 4		
20		O	apt	14th	E			Y									1 2 3 4		
21		N	14	13	W	0	0	Y									1 2 3 4		
22		N	14	13	E	0	0	Y									1 2 3 4		
23								Y									1 2 3 4		
24								Y									1 2 3 4		
25								Y									1 2 3 4		
26								Y									1 2 3 4		

For Side of Street, choose:
N NE
S SE
E NW
W SW

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

*P.R. Primary Route

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.

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Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Condition Selection	Sidewalk If N, is new SW feasible?*	Bicycle and Pedestrian Wayfinding?*	Notes	Photo(s)?
70.1	13217	F Ave	South Boundary	12th St	W	E/G	Y N	Y N		
70.25G		F Ave	South Boundary	12th St	E	N	Y N	Y N		
70.3	13975	F Ave	12th St	13th St	W	E/G	Y N	Y N		
70.45G		F Ave	12th St	13th St	E	N	Y N	Y N		
71.15G		G Ave	13th St	14th St	W	N	Y N	Y N	[illegible]	
71.2	13471	G Ave			E	F	Y N	Y N		
71.35G		G Ave		14th St	E	N	Y N	Y N	Pipeline	
71.4	13951	H Ave	South Boundary	12th St	W	E/G	Y N	Y N		
71.55G		H Ave	12th St	13th St	W	N	Y N	Y N	tight neighborhood	P.R. F
71.6	13607	H Ave	13th St	14th St	W	E/G	Y N	Y N		
71.75G		H Ave	South Boundary	14th St	E	N	Y (N)	Y N	[illegible] cemetery & poles	✓
	13378	H Ave	14th St	open lot	W	E/G	Y N	Y N		
		H Ave	open lot	15th St	W	N	(Y) N	Y N	open 16ft	P.R. G
	14220	H Ave	14th St	15th St	E	E/G	Y N	Y N	handrail limits Eff width	
	13482	G Ave	North Boudary	Haggard St	W		Y N	Y N		
		G Ave	North Boudary	Haggard St	E	N	Y N	Y N		P.R. D
		G Ave	Haggard St	19th St	W	N	Y N	Y N		
		G Ave	Haggard St	19th St	E	N	Y N	Y N		
	13513	G Ave	19th St	18th St	W		Y N	Y N		
		G Ave	19th St	Parking Lot	E	N	Y N	Y N		
	14206	G Ave	Parking Lot	18th St	E		Y N	Y N		
	14282	G Ave	18th St	17th St	W		Y N	Y N		
	14283	G Ave	18th St	17th St	E		Y N	Y N		
	14282	G Ave	17th St	Dentist	W		Y N	Y N		
		G Ave	Dentist	16th St	W	N	Y N	Y N		
		G Ave	17th St	Parking Lot	E	N	Y N	Y N		
	14279	G Ave	Parking Lot	16th St	E		Y N	Y N		
		G Ave	16th St	Parking Lot	W	N	Y N	Y N		
	14190	G Ave	Parking Lot	15th St	W	F	Y N	Y N	gap?. (P)(VP) Need Fix & clear veg.	✓
	13469	G Ave	16th St	15th St	E	F	Y N	Y N		✓
	13936	G Ave	15th St	14th St	W	E/G	Y N	Y N	Appliances cracking sw	-
	13783	G Ave	15th St	open lot	E	E/G	Y N	Y N	-Finished construction	-
		G Ave	open lot	Parking Lot	E	N	Y N	Y N		
	13374	G Ave	Parking Lot	14th St	E	E/G	Y N	Y N		
		central exp	15th	14th	E	E/G	Y N	Y N		
			14th	13/14	E	N	O N	Y (N)	No ramps for driveways, parking, EZ	✓
			13/14		E	E/G	Y N	Y (N)		
		Expy	underpass		N	E/G	Y N	Y (N)		
		Expy	"		S	F	(Y) N	Y (N)	5 ft gap (P), Poles & signage	✓
1					N	G	X N	Y (N)		
2					S	G	X N	Y (N)	Hedge limits width	✓
3					N	P	(Y) N	Y (N)	cracked, ramp (P)	✓
4		F	13/14		W	N	(Y) N	Y (N)	Trees	
5		F	13/14		E	N	(Y) N	Y N	Poles, trees (Not useful → undeveloped)	
6					W	N	(Y) N	Y N		
7					E	N	(Y) N	Y N		✓
8		14			N	E/G	Y N	Y N		
9		14			S	E/G	Y N	Y N	Grass overgrown EZ FIX	✓
10		14			N	G	Y N	Y N		
11		14			S	G N	(Y) N	Y N		
12		E			W	N	(Y) N	Y N		
13		E			E	G	Y N	Y N		
14		F			W	N	Y N	Y N		
15		F			E	G F	(Y) N	Y N		
16		14			N	F	Y N	Y N	Residential Parking	
17		14			S	VP	Y N	Y N	→ Parking obstruction, goat trail, grass	✓✓
18		O				G	Y N	Y N	-Hedge limits w/	
19		O				F	Y N	Y N	driveway. slope	
20		O			E	N	Y N	Y N	Gap, 2" drop (10 ft seg fix)	✓
21		N			E W	N	Y N	Y N	Fenced off PH → Railroad	
22		N			W E	N	Y N	Y N	-Parking, Pole, ROW, construction, drainage	✓✓
23							Y N	Y N		
24							Y N	Y N		
25							Y N	Y N		
26							Y N	Y N		

1 14th N 4(3) - 12
6 4(3) - NO CWB

*For Side of Street, choose:
N NE
S SE
E NW
W SW

Condition Options:
E/G = Excellent/Good
F = Fair
P = Poor
VP = Very Poor
N = Nonexistent

*Add photos of each sign; sketch signing and

*P.R. Primary Route

* FH - Fire Hydrant

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges

See http://www.oregon.gov/ODOT/Planning/Doc

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or more details.

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalks

Date 7/31

I = mid block crossing adv warning at
A = Assumed

Station Area P. Lot DWY Downtown Plano

Staff Name Hetal + Lisa

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width Actual	Sidewalk Width Eff.	Curb & Gutter?	Buffer (ft) Type	Buffer (ft) Width	Prevailing Speed or Speed Limit (mph)	Street Widths On-Street Parking	Street Widths Bike Lane	Street Widths Shoulder	Street Widths No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?
51.1	13307	Municipal	11th	Railroad	E	4	4	Y	L	4.5	30	0	0	0	3	N	2	N
52.1	14197	Municipal	11th	Railroad	W	4	4	Y	L	4.5	30	0	0	0	3	N	2	N
51.2	13655	Municipal	Railroad	12th	E	4	4	Y	N	0	30	0	0	0	3	N	2	N
52.2	13877	Municipal	Railroad	12th	W	4	4	Y	N	0	30	0	0	0	3	N	2	N
52.35G		Municipal	12th	13th	W	0	0	Y	N	0	30	0	0	0	3	N	2	N
51.3	13659	Municipal	12th	13th	E	4	4	Y	L	1	30	0	0	0	3	N	2	N
52.4	13934	Municipal	13th	14th	W	4	4	Y	L	2.5	30	0	0	0	3	N	2	N
51.4	13218	Municipal	13th	14th	E	4	4	Y	L	2	30	0	0	0	3	N	2	N
52.5	13777	Municipal	14th		W	12	8	Y	T	4	30	0	0	0	3	N	2	Y
51.5	14176	Municipal	14th		E	5.5	5.5	Y	N	0	30	0	0	0	3	N	2	N
52.6	13611	Municipal		15th	W	25	6	Y	S	19	30		0	0	3	N	2	Y
51.6	13436	Municipal		15th	E	4	4	Y	L	2	30	0	0	0	3	N	2	N
52.7	13448	Municipal	15th	Parking Lot	W	4	4	Y	N	0	30	0	0	0	3	N	2	Y
51.7	14182	Municipal	15th	Parking Lot	E	4	4	Y	N	0	30	0	0	0	3	N	2	Y
52.8	13299	Municipal	P. Lot DWY	~~LANE~~	W	4	4	Y	N	0	30	0	0	0	3	N	2	Y
51.85G		Municipal	P. Lot DWY	~~LANE~~	E	0	0	Y	S	3(6)	30	0	0	0	3	N	2	Y
52.9	13757	Municipal	Parking Lot		W	4	4	Y	L	3	30	0	0	0	3	N	2	Y
51.9	13529	Municipal	Parking Lot		E	4	4	Y	L	3	30	0	0	0	3	N	2	Y
53.1	14130	Municipal	Parking Lot	L Ave	W	3.5	3.5	Y	L	3	30	0	0	0	3	N	2	Y
52.1	13626	Municipal	Parking Lot	L Ave	E	4	4	Y	L(N)	0.3	30	0	0	0	3	N	2	Y
53.2	14052	Municipal	L Ave	K (SH 5) Ave	W	4	4	Y	L	4	30	0	0	0	3	N	2	Y
52.2	13279	Municipal	L Ave	K (SH 5) Ave	E	4	4	Y	L	4	30	0	0	0	3	N	2	Y
52.3	13212	Municipal	~~17th St~~ one way	18th St	E	4	4	Y	L	4	30	0	0	0	3	N	2	Y
52.4	13303	Municipal	18th St	19th	E	4	4	Y	L	3.5	40	0	0	0	3	N	3	N
53.3	13779	K (SH 5) Ave	Municipal	17th St	W	3	3	Y	L	2	35	0	0	0	5	S	2	Y
53.4	13411	K (SH 5) Ave	17th St	18th St	W	4	4	Y	L	3.5	35	0	0	0	5	S	2	Y
53.5	13216	K (SH 5) Ave	18th St	18th Pl	W	4	4	Y	L	2	~~35~~ 30	0	0	0	6	S	3	N
53.6	14014	K (SH 5) Ave	18th Pl	19th St	W	4	4	Y	L	2.5	40	0	0	0	6	S	3	N
54.15G		18th St	West Boundary	open lot	S	0	0	Y	N	0	30	0	0	0	4	-	3	N
54.2	14153	18th St	side road	town homes	S	4	4	Y	N	0	30	0	0	0	4	-	3	N
54.3	14295	18th St	Rice Field	G Ave	S	10	5	Y	T	0.5	30	TCS	0	0	2	-	3	N
54.4	14294	18th St	G Ave	H Ave	S	4	3.4	Y	N	0	30	0	0	0	4	-	3	N
54.5	13900	18th St	H Ave	~~810 18th~~	S	5	5	Y	N	0	30	0	0	0	4	-	3	N
54.6	13714	18th St	~~810 18th~~	I Ave	S	4	4	Y	L	4	30	0	0	0	4	-	3	N
54.7	13552	18th St	J Ave	K Ave	S	4	4	Y	L	2	30	0	0	0	4	-	3	N
55.15G		18th St	West Boundary	Rice Field	N	0	0	Y	N	0	30	0	0	0	4	-	3	N
55.2	13983	18th St	Rice Field	G Ave	N	4	4	Y	N	0	30	0	0	0	2	-	3	N
55.3	13274	18th St	G Ave	~~810 18th~~	N	5	5	Y	N	0	30	0	0	0	4	-	3	N
55.4	13317	18th St	~~810 18th~~	H Ave	N	4	3/4	Y	L	1	30	0	0	0	4	-	3	N
55.5	13927	18th St	H Ave	I Ave	N	4	4	Y	L	2	30	0	0	0	4	-	3	N
55.6	13312	18th St	J Ave	Res P.	N	4	4	(Y)	N	0	30	0	0	0	4	-	3	N
55.7	13231	18th St	Res P	K Ave	N	4	4	(Y)	L	2	30	0	0	0	4	-	3	N
56.1	13242	18th St	K Ave	Auto Shop	N	4	4	Y	N	0	30	0	0	0	4	-	3	N
56.2	14012	18th St	Auto Shop	L Ave	N	5	5	Y	N	0	30	0	0	0	4	-	3	N
56.3	13796	18th St	L Ave	M Ave	N	4	4	Y	N	0	30	0	0	0	2	-	3	N
56.4	13301	18th St	M Ave	N Ave	N	4	4	Y	L	2	30	0	0	0	2	-	3	N
56.5	13873	18th St	N Ave	Drainage Rd	N	7	1	Y	N	0	30	0	0	0	2	-	3	N
56.6	13819	18th St	Drainage Rd	N Pl	N	4	4	Y	N	0	30	0	0	0	2	-	3	N
56.7	13791	18th St	N Pl	E Lim	N	4	4	Y	N	0	30	0	0	0	2	-	3	N
57.1	13502	18th St	K Ave	USPS	S	4	4	Y	L	3	30	0	0	0	4	-	3	N
57.2	13906	18th St	USPS	L Ave	S	4	3	Y	N	0	30	0	0	0	4	-	3	N
57.3	13403	18th St	L Ave	M Ave	S	5	5	Y	N	0	30	0	0	0	2	-	3	N
57.4	13879	18th St	M Ave	M Pl	S	4	4	Y	N	0	30	0	0	0	2	-	3	N
57.5	13325	18th St	M Pl	N Ave	S	4	4	Y	N	0	30	0	0	0	2	-	3	N
57.6	14112	18th St	N Ave	N Pl	S	4	4	Y	L	3	30	0	0	0	2	-	3	N
57.7	13732	18th St	N Pl	E Lim	S	4	4	Y	L	2	30	0	0	0	2	-	3	N
58.1	13548	17th St	G Ave	H Ave	N	4	4	Y	N	0	30	0	0	0	2	-	2	N
58.25G		17th St	G Ave	H Ave	S	0	0	Y	N	0	30	0	0	0	2	-	2	N
58.3	13432	17th St	H Ave	I Ave	N	4	4	Y	L	3	30	0	0	0	2	-	2	N
58.4	13676	17th St	H Ave	I Ave	S	4	4	Y	L	4	30	0	0	0	2	-	2	N

Non ESide

P.R. H

P.R. E

P.R. B

(·) Parking width > 3

For Side of Street, choose:
N NE
S SE
E NW
W SW

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

*P.R. Primary Route

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
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DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalks

Date

Downtown Plano

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Condition Selection	Sidewalk If N, is new SW feasible?*	Bicycle and Pedestrian Wayfinding?*	Notes	Photo(s)?
51.1	13307	Municipal	11th	Railroad	E		Y N	Y N		
52.1	14197	Municipal	11th	Railroad	W		Y N	Y N		
51.2	13655	Municipal	Railroad	12th	E		Y N	Y N		
52.2	13877	Municipal	Railroad	12th	W		Y N	Y N		
52.35G		Municipal	12th	13th	W	N	Y N	Y N		
51.3	13659	Municipal	12th	13th	E		Y N	Y N		
52.4	13934	Municipal	13th	14th	W		Y N	Y N		
51.4	13218	Municipal	13th	14th	E		Y N	Y N		
52.5	13777	Municipal	14th		W		Y N	Y N		
51.5	14176	Municipal	14th		E		Y N	Y N		
52.6	13611	Municipal		15th	W		Y N	Y N		
51.6	13436	Municipal		15th	E		Y N	Y N		Y
52.7	13448	Municipal	15th	Parking Lot	W	E/G	Y N	Y(N)	has same buffer 3'	Y
51.7	14182	Municipal	15th	Parking Lot	E	E/G	Y N	Y(N)		Y
52.8	13299	Municipal	Parking Lot	Mid Block C	W	E/G	(Y) N	Y(N)	Side walk ~~has same buffer~~ 3'	Y
51.85G		Municipal	11	11	E	N	Y N	Y N	side walk through Apt access	P.R. H
52.9	13757	Municipal	Parking Lot		W		Y N	Y N		
51.9	13529	Municipal	Parking Lot		E		Y N	Y N		
53.1	14130	Municipal	Parking Lot	L Ave	W	E/G	Y N	Y(N)	sidewalk upto one way junction	Y
52.1	13626	Municipal	Parking Lot	L Ave	E	E/G	Y N	Y(N)	S & L Ped sign pole reduces E. width.	
53.2	14052	Municipal	L Ave	K (SH 5) Ave	W	E/G	Y N	Y(N)		
52.2	13279	Municipal	L Ave	K (SH 5) Ave	E	E/G	Y N	Y N	No buffer at	
52.3	13212	Municipal	~~17th St~~ one way P. lot	18th St	E	E/G	Y N	Y(N)	No buffer for length of building	1726
52.4	13303	Municipal	18th St	19th	E		Y N	Y N		
53.3	13779	K (SH 5) Ave	Municipal	17th St	W		Y N	Y N		
53.4	13411	K (SH 5) Ave	17th St	18th St	W		Y N	Y N		
53.5	13216	K (SH 5) Ave	18th St	18th Pl	W	E/G	Y N	Y(N)		
53.6	14014	K (SH 5) Ave	18th Pl	19th St	W	E/G	Y N	Y(N)		
54.15G		18th St	West Boundary	open lot	S	N	(Y) N	Y(N)		P.R. E
54.2	14153	18th St	side road	town homes	S	E/G	Y N	Y(N)	Patch of S.W. missing N of nice brick	
54.3	14295	18th St	Rice Field	G Ave	S	E/G	Y N	Y(N)		
54.4	14294	18th St	G Ave	H Ave	S	E/G	Y N	Y(N)		
54.5	13900	18th St	H Ave	~~810 18th~~	S		Y N	Y N		
54.6	13714	18th St	~~810 18th~~	I Ave	S	F	Y N	Y(N)		
54.7	13552	18th St	J Ave	K Ave	S	F	Y N	Y(N)	Replace work at 1000 18th	
55.15G		18th St	West Boundary	Rice Field	N	N/A	(Y) N	Y(N)	Parked cars block S.W. open H.H.	
55.2	13983	18th St	Rice Field	G Ave	N	F	Y N	Y N		
55.3	13274	18th St	G Ave	~~810 18th~~	N	E/F	Y N	Y(N)	Ele. W reduced by poles	
55.4	13317	18th St	~~810 18th~~	H Ave	N	E/G	Y N	Y(N)	"	
55.5	13927	18th St	H Ave	I Ave	N	F	Y N	Y(N)	Bend V. curve on NEL SW at 18th	
55.6	13312	18th St	J Ave	Res P	N	F	Y N	Y(N)		
55.7	13231	18th St	Res P	K Ave	N	F	Y N	(Y)N		
56.1	13242	18th St	K Ave	Auto Shop	N	F	Y N	(Y)N		
56.2	14012	18th St	Auto Shop	L Ave	N	F	Y N	Y(N)		
56.3	13796	18th St	L Ave	M Ave	N	E/G	Y N	Y(N)	housing E of L AV	
56.4	13301	18th St	M Ave	N Ave	N	E/G	Y N	(Y)N	Poles block E ele. W of SW	
56.5	13873	18th St	N Ave	Drainage Rd	N	E/F	(Y) N	Y(N)	Buy ROW ~~from~~ from Res.	
56.6	13819	18th St	Drainage Rd	N Pl	N	E/F	Y N	Y(N)		
56.7	13791	18th St	N Pl	E Lim	N	~~E/F~~	Y N	Y(N)		
57.1	13502	18th St	K Ave	USPS	S	E/F	Y N	(Y)N	signal pole blocks S.W. at S.E.C	
57.2	13906	18th St	USPS	L Ave	S	E/G	Y N	(Y)N	Ele W is reduced by poles/curbs	
57.3	13403	18th St	L Ave	M Ave	S	E/G	Y N	(Y)N		
57.4	13879	18th St	M Ave	M Pl	S	E/F	Y N	Y(N)	SWC curb. Panel is missing from SW	
57.5	13325	18th St	M Pl	N Ave	S	E/G	Y N	Y(N)		
57.6	14112	18th St	N Ave	N Pl	S	E/F	Y N	Y(N)	No ramp at NCS. DWY	
57.7	13732	18th St	N Pl	E Lim	S	E/F	Y N	Y(N)	"	
58.1	13548	17th St	G Ave	H Ave	N	F	Y N	Y(N)	some curb is missing E of G	
58.25G		17th St	G Ave	H Ave	S	N	(Y) N	Y N	some lights	P.R. B
58.3	13432	17th St	H Ave	I Ave	N	F	Y N	Y(N)		
58.4	13676	17th St	H Ave	I Ave	S	F	Y N	Y(N)	some lights	

For Side of Street, choose:
N NE
S SE
E NW
W SW

Condition Options:
E/G = Excellent/Good
F = Fair
P = Poor
VP = Very Poor
N = Nonexistent

*Add photos of each sign; sketch signing and

*P.R. Primary Route

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges See http://www.oregon.gov/ODOT/Planning/Doc

LEE ENGINEERING for more details.

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width Actual	Sidewalk Width Eff.	Curb & Gutter?	Buffer (ft) Type	Buffer (ft) Width	Prevailing Speed or Speed Limit (mph)	Street Widths On-Street Parking	Street Widths Bike Lane	Street Widths Shoulder	Street Widths No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?	
	13768	H Ave	15th St	Street Parking	W	4	4	Y	L	4	30	0	0	0	2	-	2	N	
	13739	H Ave	Street Parking	16th St	W	6	6	Y	L	2	30	40	0	0	2	-	2	N	
	13226	H Ave	15th St	Street Parking	E	6	6	Y	L	1	30	0	0	0	2	-	2	N	
	13226	H Ave	Street Parking	16th St	E	6	6	Y	L	10	30	40	0	0	2	-	2	N	
	13207	H Ave	16th St	17th St	W	4	4	Y	L	8	30	16	0	0	2	-		N	
		H Ave	16th St	17th St	E	0	0	Y	N	0	30	16	0	0	2	-		N	P.R. A
	13308	H Ave	17th St	18th St	W	4	4	Y	BL	16	30	0	0	0	2	-		N	
		H Ave	17th St	Drainage	E	0	0	Y	N	0	30	16	0	0	2	-		N	
	14293	H Ave	Drainage	18th St	E	5	5	Y	N	0	30	16	0	0	2	-		N	
	13350	H Ave	18th St	~~sidewalk gap~~ 19	W	0	0	Y			30	16	0	0	2	-		N	
	14040	H Ave	18th St	~~sidewalk gap~~ 19	E	0	0	Y			30	16	0	0	2	-		N	
		H Ave	~~sidewalk gap~~ 19	22nd St	W	0	0	Y	N	0	30	16	0	0	2	-		N	
		H Ave	~~sidewalk gap~~ 19	22nd St	E	0	0	Y	N	0	30	16	0	0	2	-		N	
59.1	14155	16th St	Central EXPY	E Ave	N	5	5	Y	N	0	30	16	0	0	2	-		N	P.R. C
60.1SG		16th St	Central EXPY	E Ave	S	0	0	Y	N	0	30	16	0	0	2	-		N	
59.2	13464	16th St	E Ave	Villas	N	0	0	N	N	0	30	16	0	0	2	-		N	
59.3SG		16th St	Villas	F Ave	N	0	0	N	N	0	30	16	0	0	2	-		N	
60.2SG		16th St	E Ave	F Ave	S	0	0	N	N	0	30	16	0	0	2	-		N	
59.4	13451	16th St	F Ave	G Ave	N	8	8	N	N	0	30	8	0	0	2	-		N	
60.3SG		16th St	F Ave	708	S	0	0	N	N	0	30	8	0	0	2	-		N	
59.5	14089	16th St	708	G Ave	N	10	4	N	T	6	30	0	0	0	2	-		N	
60.4	13561	16th St	[redacted]	G Ave	S	5	5	N	N	0	30	0	0	0	2	-		N	
59.6	13802	16th St	G Ave	H Ave	N	4	4	Y	N	0	30	0	0	0	2	-		N	
60.5	13804	16th St	G Ave	Parking L	S	4	4	Y	L	1	30	0	0	0	2	-		N	
60.6	14062	16th St	Parking L	H Ave	S	4	4	Y	L	18	30	0	0	0	2	-		N	
59.7SG		16th St	H Ave	I Ave	N	0	0	Y	N	0	30	0	0	0	2	-		N	P.R. A
60.7SG	14290	16th St	H Ave	I Ave	S	0	0	Y	NL	0	30	0	0	0	2	-		N	
61.1	13509	I Ave	16th St	17th St	W	4	4	Y	L	2	30	0	0	0	2	-		N	
61.2	13987	I Ave	17th St	18th St	W	4	4	Y	L	2	30	0	0	0	2	-		N	
61.3SG		I Ave	16th St	18th St	E	0	0	Y	N	0	30	0	0	0	2	-		N	
62.1	14160	E 15th St	Central EXPY	G Ave	N	10	6	Y	S	4	30	0	0	0	3	-	3	N	
62.2	14038	E 15th St	G Ave	H Ave	N	8	6	Y	N	0	30	0	0	0	4	-	3	N	
62.3	13497	E 15th St	H Ave	I Ave	N	8	5	Y	N	0	30	0	0	0	3	-	3	N	
62.4	13497	E 15th St	I Ave	Alex Schell	N	6	6	Y	N	0	30	0	0	0	3	-	3	N	
62.5	13939	E 15th St	J Ave	K Ave	N	8	4	Y	N	0	30		0	0	2	-	3	N	
62.6	13503	E 15th St	K Ave		N	8	4	Y	N	0	30	0	0	0	2	-	3	N	
62.7	13869	E 15th St			N	5	5	Y	N	0	30		0	0	2	-	3	Y	
62.8	13490	E 15th St		Municipal	N	5	5	Y	L	3	30	0	0	0	2	-	3	Y	
63.1	13861	E 15th St	Municipal	M Ave	N	4	4	Y	N	0	30	0	0	0	2	-	3	Y	
63.2	13457	E 15th St	M Ave	N Ave	N	4	4	Y	N	0	30	0	0	0	2	-	3	N	
63.3	13963	E 15th St	N Ave	O Avr	N	4	4	Y	N	0	30	0	0	0	2	-	3	N	
63.4	13600	E 15th St	O Ave		N	4	4	Y	N	0	30	0	0	0	2	-	3	N	
64.1	13452	E 15th St	Central EXPY		S	5	5	Y	L	5	30	0	0	0	2	-	3	N	
64.2	14177	E 15th St		G Ave	S	10	5	Y	S	0	30	0	0	0	2	-	3	N	
64.3	13228	E 15th St	G Ave	I Ave	S	10	5	Y	S	0	30		0	0	2	-	3	N	
64.4	13800	E 15th St	I Ave	Municipal	S	6	6	Y	L	4	30	0	0	0	2	-	3	Y	
65.1	13982	E 15th St	Municipal	M Ave	S	6	6	Y	N	0	30	0	0	0	2	-	3	Y	
65.2	13612	E 15th St	M Ave	N Ave	S	4	4	Y	N	0	30		0	0	2	-	3	Y	
65.3	13823	E 15th St	N Ave	Parking Lot	S	5	5	Y	N	0	30	0	0	0	2	-	3	N	
65.4	13550	E 15th St	Parking Lot		S	5	5	Y	N	0	30	0	0	0	2	-	3	N	
65.5	13890	E 15th St		O Ave	S	4	4	Y	N	0	30	0	0	0	2	-	3	N	
65.6	13399	E 15th St	O Ave		S	5	5	Y	N	0	30	0	0	0	2	-	3	N	
66.1	13376	13th St	Central EXPY	F Ave	N	5	5	Y	N	0	30	0	0	0	2	-	2	N	
67.1	13210	13th St	Central EXPY	F Ave	S	4	4	Y	N	0	30	0	0	0	2	-	2	N	
66.2	14074	13th St	F Ave	G Ave	N	5	5	Y	N	0	30	0	0	0	2	-	2	N	
67.2	13290	13th St	F Ave	G Ave	S	4	4	Y	N	0	30	0	0	0	2	-	2	N	
66.3	13694	~~[redacted]~~ K	~~[redacted]~~ 15th	~~[redacted]~~ 15th PL	NW	16	5	Y	L	0	30	0	0	0	3	-	5	N	
67.3	13498	14th St	~~[redacted]~~	~~[redacted]~~	SE	16	4	Y	L	0	30	0	0	0	3	-	5	N	
66.4	13258	14th St K	I Ave 15th PL	~~[redacted]~~ 16th	NW	6	6	Y	P	0	30	0	0	0	2	-	5	N	
67.4	13272	14th St	~~[redacted]~~	~~[redacted]~~	SE	6	6	Y	P	0	30	0	0	0	2	-	5	N	
66.5	13390	14th St K	Railroad 16th	~~[redacted]~~ M.J.	NW	4	4	Y	L	3	30	0	0	0	2	-	5	N	
67.5	13969	14th St	Railroad	K Ave	SE	6	6	Y	N	0	30	0	0	0	2	-		N	
66.6	13722	14th St K	K Ave M.J.	Municipal 18th	NW	4	4	Y	L	3	30	N	0	0	4	-		N	
67.6	13822	14th St 16th	K Ave K	Municipal RR	SE	18	4	Y	L	6	30	0	0	0	2	-		N	
66.7	13991	14th St	Municipal		NE	4	6	Y	N	0	30	0	0	0	2	-		N	
67.7	13414	14th St	Municipal		S	4	4	Y	L	8	30	0	0	0	2	-	2	N	
66.8	13540	14th St		M Ave	N	5	5	Y	N	0	35	0	0	0	4	-	2	N	
67.8	14032	14th St		M Ave	S	5	5	Y	N	0	35	0	0	0	4	-	2	N	
66.9	13712	14th St	M Ave	N Ave	N	4	4	Y	N	0	35	0	0	0	4	-	2	N	
67.9	13477	14th St	M Ave	N Ave	S	4	4	Y	N	0	35	0	0	0	4	-	2	N	
68.1	13233	14th St	N Ave		N	4	4	Y	N	0	35	0	0	0	4	-	2	N	
69.1	13771	14th St	N Ave		S	4	4	Y	N	0	35	0	0	0	4	-	2	N	

M.J. = Municipal Junction M.

LEE ENGINEERING

For Side of Street, choose: NE, SE, NW, SW

Buffer Types: N = None; S = Solid Surface; L = Landscaped; T = Landscaped w/ Trees; V = Vertical (retaining wall)

*All lanes for 2-way street

*P.R. Primary Route

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Condition Selection	Sidewalk If N, is new SW feasible?*	Bicycle and Pedestrian Wayfinding?*	Notes	Photo(s)?	
	13768	H Ave	15th St	Street Parking	W		Y N	Y N			
	13739	H Ave	Street Parking	16th St	W		Y N	Y N			
	13226	H Ave	15th St	Street Parking	E		Y N	Y N			
	13226	H Ave	Street Parking	16th St	E		Y N	Y N			
	13207	H Ave	16th St	17th St	W	E/G	Y N	Y N			
		H Ave	16th St	17th St	E	N	Y N	Y N			P.R. A
	13308	H Ave	17th St	18th St	W	F	Y N	Y N			
		H Ave	17th St	Drainage	E	N	Y N	Y N			
	14293	H Ave	Drainage	18th St	E	E/G	Y N	Y N			
	13350	H Ave	18th St	~~sidewalk gap~~ 19	W	—	Y N	Y N			
	14040	H Ave	18th St	sidewalk gap 19	E	—	Y N	Y N			
		H Ave	sidewalk gap 19	22nd St	W	N	Y N	Y N			
		H Ave	sidewalk gap 19	22nd St	E	N	Y N	Y N			
59.1	14155	16th St	Central EXPY	E Ave	N	E/G	Y N	Y N			
60.1SG		16th St	Central EXPY	E Ave	S	N	Y N	Y N	May need to buy ROW from Businesses		P.R. C
59.2	13464	16th St	E Ave	[redacted] Villas	N	N	Y N	Y N			
59.3SG		16th St	Villas	F Ave	N	N	Y N	Y N	[redacted]		
60.2SG		16th St	E Ave	F Ave	S	N	Y N	Y N	some sidewalk / Dirt bet F & storage		
59.4	13451	16th St	F Ave	G	N	N	Y N	Y N			
60.3SG		16th St	F Ave	708	S	E/G	Y N	Y N			
59.5	14089	16th St	708	G Ave	N	E/G	Y N	Y N			
60.4	13561	16th St	G	G Ave	S	E/G	Y N	Y N			
59.6	13802	16th St	G Ave	H Ave	N	E/G	Y N	Y N			
60.5	13804	16th St	G Ave	P Lot	S	E/G	Y N	Y N			
60.6	14062	16th St	P Lot	H Ave	S	E/G	Y N	Y N			
59.7SG		16th St	H Ave	I Ave	N	E/G	Y N	Y N	some lighting		P.R. A
60.7SG	14290	16th St	H Ave	I Ave	S	N	Y N	Y N			
61.1	13509	I Ave	16th St	17th St	W	E/G	Y N	Y N			
61.2	13987	I Ave	17th St	18th St	W	E/G	Y N	Y N			
61.3SG		I Ave	16th St	18th St	E	N	Y N	Y N			
62.1	14160	E 15th St	Central EXPY	G Ave	N		Y N	Y N			
62.2	14038	E 15th St	G Ave	H Ave	N		Y N	Y N			
62.3	13497	E 15th St	H Ave	I Ave	N		Y N	Y N			
62.4	13497	E 15th St	I Ave	Alex Schell	N		Y N	Y N			
62.5	13939	E 15th St	J Ave	K Ave	N		Y N	Y N			
62.6	13503	E 15th St	K Ave		N		Y N	Y N			
62.7	13869	E 15th St			N		Y N	Y N			
62.8	13490	E 15th St		Municipal	N		Y N	Y N			
63.1	13861	E 15th St	Municipal	M Ave	N		Y N	Y N			
63.2	13457	E 15th St	M Ave	N Ave	N		Y N	Y N			
63.3	13963	E 15th St	N Ave	O Avr	N		Y N	Y N			
63.4	13600	E 15th St	O Ave		N		Y N	Y N			
64.1	13452	E 15th St	Central EXPY		S		Y N	Y N			
64.2	14177	E 15th St		G Ave	S		Y N	Y N			
64.3	13228	E 15th St	G Ave	I Ave	S		Y N	Y N			
64.4	13800	E 15th St	I Ave	Municipal	S		Y N	Y N			
65.1	13982	E 15th St	Municipal	M Ave	S		Y N	Y N			
65.2	13612	E 15th St	M Ave	N Ave	S		Y N	Y N			
65.3	13823	E 15th St	N Ave	Parking Lot	S		Y N	Y N			
65.4	13550	E 15th St	Parking Lot		S		Y N	Y N			
65.5	13890	E 15th St		O Ave	S		Y N	Y N			
65.6	13399	E 15th St	O Ave		S		Y N	Y N			
66.1	13376	13th St	Central EXPY	F Ave	N		Y N	Y N			
67.1	13210	13th St	Central EXPY	F Ave	S		Y N	Y N			
66.2	14074	13th St	F Ave	G Ave	N		Y N	Y N			
67.2	13290	13th St	F Ave	G Ave	S		Y N	Y N			
66.3	13694	~~[redacted]~~ K	~~[redacted]~~ 15th	~~[redacted]~~ 15th PL	NW	E/G	Y N	Y N			
67.3	13498	14th St	G Ave	I Ave	SE	E/G	Y N	Y N			
66.4	13258	14th St K	I Ave 15th PL	Railroad 16th	NW	E/G	Y N	Y N			
67.4	13272	14th St	I Ave	Railroad	SE	E/G	Y N	Y N			
66.5	13390	14th St K	Railroad 16th	K Ave M.J.	NW	E/G	Y N	Y N			
67.5	13969	14th St	Railroad	K Ave	SE	E/G	Y N	Y N			
66.6	13722	14th St K	K Ave MJ	Municipal 18th	NW	E/G	Y N	Y N	Some construction		
67.6	13822	14th St 16th	K Ave K	Municipal RR	SE	E/G	Y N	Y N	No parking		
66.7	13991	14th St	Municipal		NE	E/G	Y N	Y N	Parking need im -		
67.7	13414	14th St	Municipal		S		Y N	Y N			
66.8	13540	14th St		M Ave	N		Y N	Y N			
67.8	14032	14th St		M Ave	S		Y N	Y N			
66.9	13712	14th St	M Ave	N Ave	N		Y N	Y N			
67.9	13477	14th St	M Ave	N Ave	S		Y N	Y N			
68.1	13233	14th St	N Ave		N		Y N	Y N			
69.1	13771	14th St	N Ave		S		Y N	Y N			

LEE ENGINEERING

For Side of Street, choose: N, NE, S, SE, E, NW, W, SW

Condition Options: E/G = Excellent/Good; F = Fair; P = Poor; VP = Very Poor; N = Nonexistent

*Add photos of each sign; sketch signing and

*P.R. Primary Route

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width Actual	Sidewalk Width Eff.	Curb & Gutter?	Buffer (ft) Type	Buffer (ft) Width	Prevailing Speed or Speed Limit (mph)	Street Widths On-Street Parking	Street Widths Bike Lane	Street Widths Shoulder	Street Widths No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?	
70.1	13217	F Ave	South Boundary	12th St	W	4	4	Y	S	2	30	0	0	0	2	-	1	N	
70.25G		F Ave	South Boundary	12th St	E	0	0	Y	N	0	30	0	0	0	2	-	1	N	
70.3	13975	F Ave	12th St	13th St	W	4	4	Y	N	0	30	0	0	0	2	-	1	N	
70.45G		F Ave	12th St	13th St	E	0	0	Y	N	0	30	0	0	0	2	-	1	N	
71.15G		G Ave	13th St	14th St	W	0	0	Y	N	0	30	0	0	0	2	-	2	N	
71.2	13471	G Ave			E	4	4	Y	L	5	30	0	0	0	2	-	2	N	
71.35G		G Ave		14th St	E	0	0	Y	N	0	30	0	0	0	2	-	2	N	
71.4	13951	H Ave	South Boundary	12th St	W	5	5	Y	L	4	30	0	0	0	2	-	2	N	P.R. F
71.55G		H Ave	12th St	13th St	W	0	0	Y	N	0	30	0	0	0	2	-	2	N	
71.6	13607	H Ave	13th St	14th St	W	4	4	Y	N	0	30	0	0	0	2	-	2	N	
71.75G		H Ave	South Boundary	14th St	E	0	0	Y	N	0	30	0	0	0	2	-	2	N	
	13378	H Ave	14th St	open lot	W	5	5	Y	N	0	30	16	0	0	2	-	3	N	
		H Ave	open lot	15th St	W	0	0	Y	N	0	30	16	0	0	2	-	3	N	P.R. G
	14220	H Ave	14th St	15th St	E	5	5	Y	N	0	30	16	0	0	2	-	3	N	
	13482	G Ave	North Boudary	Haggard St	W	4	4	Y	L	3	30	0	0	0	4	-	3	N	P.R. D
		G Ave	North Boudary	Haggard St	E	0	0	Y	N	0	30	0	0	0	4	-	3	N	
		G Ave	Haggard St	19th St	W	0	0	Y	N	0	30	0	0	0	4	-	3	N	
		G Ave	Haggard St	19th St	E	0	0	Y	N	0	30	0	0	0	4	-	3	N	
	13513	G Ave	19th St	18th St	W	5	5	Y	N	0	30	0	0	0	4	-	3	N	
		G Ave	19th St	Parking Lot	E	0	0	Y	N	0	30	0	0	0	4	-	3	N	
	14206	G Ave	Parking Lot	18th St	E	5	5	Y	N	0	30	0	0	0	4	-	3	N	
	14282	G Ave	18th St	17th St	W	8	5	Y	N	0	30	16	0	0	2	-	3	N	
	14283	G Ave	18th St	17th St	E	6	6	Y	N	0	30	16	0	0	2	-	3	N	
	14282	G Ave	17th St	Dentist	W	8	5	Y	N	0	30	0	0	0	2	-	3	N	
		G Ave	Dentist	16th St	W	0	0	Y	N	0	30	0	0	0	2	-	3	N	
		G Ave	17th St	Parking Lot	E	4	4	Y	L	4	30	0	0	0	2	-	3	N	
	14279	G Ave	Parking Lot	16th St	E	4	4	Y	L	4	30	0	0	0	2	-	3	N	
		G Ave	16th St	Parking Lot	W	0	0	Y	N	0	30	0	0	0	2	-	3	N	
	14190	G Ave	Parking Lot	15th St	W	5	5	Y	N	0	30	0	0	0	4	-	3	N	
	13469	G Ave	16th St	15th St	E	5	4	Y	N	0	30	0	0	0	4	-	3	N	
	13936	G Ave	15th St	14th St	W	5	5	Y	N	0	30	0	0	0	4	-	3	N	
	13783	G Ave	15th St	open lot	E	6	5	Y	N	0	30	0	0	0	4	-	3	N	
		G Ave	open lot	Parking Lot	E	0	0	Y	N	0	30	0	0	0	4	-	3	N	
	13374	G Ave	Parking Lot	14th St	E	5	5	Y	N	0	30	0	0	0	4	-	3	N	
		N PL	18 Th	N Lim	W	0	0	Y	0	0	30A	Y	0	0	2		1 2 3 4		
		NPL	18th	N Lim	S	0	0	Y	0	0	30A	Y	0	0	2		1 2 3 4		
		SW at 1313 18th PL	N Ave	Mple	N	4	4	Y	0	0	Asch DWY	N	N	N	1		1 2 3 4		#4
		N Ave	18th	N Lim	W	4	4	Y	SL	4	30 A	Y	0	0	2		1 2 3 4		
		"	"	"	E	0	0	Y			"	Y	0	0	2		1 2 3 4		
		18th Pl	K Ave	RR T	N	4	4	Y			30 A	Y	0	0	2		1 2 3 4		
		"	"	"	S	4	4	Y			30 A	Y	0	0	2		1 2 3 4		
		E Ave	16th	15th	W	4	4	Y			30 A	Y	0	0	2		1 2 3 4		
		E Ave	16th	15th	E	0	0	Y			30 A	Y	0	0	2		1 2 3 4		
		75 NBFR	16th	15th	W	0	0	Y			45	N	0	0	3	N	1 2 3 4		
					E	0	0	Y				N	0	0	3	N	1 2 3 4		
		F Ave	16th	15th	W	0	0	Y			30 A	Y	0	0	2		1 2 3 4		
					E	0	0	Y			30 A	Y	0	0	2		1 2 3 4		
		19th	G	H	N	0	0	Y			30 A	Y	0	0	2		1 2 3 4		
					S	0	0	Y			30 A	Y	0	0	2		1 2 3 4		
		Haggard	W. Lim	G	N	4	4	Y			30 A	Y	0	0	2		1 2 3 4		
					S	4	4	Y	4	4	30 A	Y	0	0	2		1 2 3 4		
		Haggard	G	H	N			Y			30 A	Y	0	0	2		1 2 3 4		
		Alpine	N Lim	Haggard	S			Y			30 A	Y			2		1 2 3 4		
		J	18th	16	W	4		Y			30A	N			2		1		

For Side of Street, choose: N NE, S SE, E NW, W SW

Buffer Types: N = None, S = Solid Surface, L = Landscaped, T = Landscaped w/ Trees, V = Vertical (retaining wall)

*All lanes for 2-way street

*P.R. Primary Route

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.

LEE ENGINEERING

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Condition Selection	Sidewalk If N, is new SW feasible?*	Bicycle and Pedestrian Wayfinding?*	Notes	Photo(s)?	
70.1	13217	F Ave	South Boundary	12th St	W		Y N	Y N			
70.25G		F Ave	South Boundary	12th St	E	N	Y N	Y N			
70.3	13975	F Ave	12th St	13th St	W		Y N	Y N			
70.45G		F Ave	12th St	13th St	E	N	Y N	Y N			
71.15G		G Ave	13th St	14th St	W	N	Y N	Y N			
71.2	13471	G Ave			E		Y N	Y N			
71.35G		G Ave		14th St	E	N	Y N	Y N			
71.4	13951	H Ave	South Boundary	12th St	W		Y N	Y N			P.R. F
71.55G		H Ave	12th St	13th St	W	N	Y N	Y N			
71.6	13607	H Ave	13th St	14th St	W		Y N	Y N			
71.75G		H Ave	South Boundary	14th St	E	N	Y N	Y N			
	13378	H Ave	14th St	open lot	W		Y N	Y N			
		H Ave	open lot	15th St	W	N	Y N	Y N			P.R. G
	14220	H Ave	14th St	15th St	E		Y N	Y N			
	13482	G Ave	North Boudary	Haggard St	W	E/G	Y N	Y (N)			P.R. D
		G Ave	North Boudary	Haggard St	E	N	(Y) N	Y N			
		G Ave	Haggard St	19th St	W	N	(Y) N	Y N			
		G Ave	Haggard St	19th St	E	N	(Y) N	Y N			
	13513	G Ave	19th St	18th St	W	E/G	Y N	Y (N)			
		G Ave	19th St	Parking Lot	E	N	(Y) N	Y N			
	14206	G Ave	Parking Lot	18th St	E	E/G	Y N	Y (N)			
	14282	G Ave	18th St	17th St	W	E/G	Y N	Y (N)			
	14283	G Ave	18th St	17th St	E	E/G	Y N	Y (N)			
	14282	G Ave	17th St	Dentist	W	E/G	Y N	Y (N)			
		G Ave	Dentist	16th St	W	N	(Y) N	Y (N)			
		G Ave	17th St	Parking Lot	E	N	Y N	Y (N)			
	14279	G Ave	Parking Lot	16th St	E	E/G	Y N	Y (N)			
		G Ave	16th St	Parking Lot	W	N	Y N	(Y) N	On Street Parking on G between 16 & 18		
	14190	G Ave	Parking Lot	15th St	W	E/G	Y N	Y (N)	Utility pole/signages reduces E width.		
	13469	G Ave	16th St	15th St	E	E/G	Y N	Y (N)			
	13936	G Ave	15th St	14th St	W	E/G	Y N	Y (N)			
	13783	G Ave	15th St	open lot	E	E/G	Y N	Y (N)			
		G Ave	open lot	Parking Lot	E	N	Y N	Y N			
	13374	G Ave	Parking Lot	14th St	E		Y N	Y N			
		N PL	18 PL	N Lim	W	N	(N) N	Y (N)			
		NPL	18 Th	N Lim	E	N	(N) N	Y (N)			
		1313 18th Av	N Ave	Mple	N	E/G	Y N	Y (N)			
		N Ave	18th	N Lim	W	E/G	(N) N	Y (N)			
		"	"	"	E	N	(N) N	Y (N)			
		18th PL	K Ave	RR T	N	E/G	Y N	Y (N)			
		"	"	"	S	E	Y N	Y (N)			
		E Ave	16th	15th	W	F	Y N	Y N	Some S.W. along Chase Bank.		
		E Ave	16th	15th	E	N	(Y) N	Y N			
		75 NBF	16th	15th	W	N	(Y) N	Y N	NO S.W. only driveways		
					E	N	(Y) N	Y N			
		F Ave	16th	15th	W	N	(Y) N	Y N	? may need to buy ROW		
					E	N	(Y) N	Y N	some S.W. N at 15th.		
		19th	G	H	N	N	(Y) N	Y N			
					S	N	(Y) N	Y N			
		Haggard	W Lim	G	N	E/G	Y N	Y (N)			
					S	E/G	Y N	Y (N)			
		Haggard	G	H	N	—	(Y) N	Y N			
					S	—	(Y) N	Y N			
		Alpine	N Lim	Haggard	W	—	Y (N)	Y N	? No ROW		
					E	—	Y N	Y N			
		J	18th	16th	W		Y (N)	Y N	too close to RR		
					E	E/G	Y N	Y N			

For Side of Street, choose: N NE, S SE, E NW, W SW

Condition Options: E/G = Excellent/Good, F = Fair, P = Poor, VP = Very Poor, N = Nonexistent

*Add photos of each sign: sketch signing and

*P.R. Primary Route

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges See http://www.oregon.gov/ODOT/Planning/Do for more details.

LEE ENGINEERING

Signalized

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Crossings

Date July, 31st 2018 Station Area Downtown Plano Staff Name

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	If Signalized: Permitted: Left Turns?	Right Turns?	Countdown Ped. Signals?	Pushbuttons: Functional?	w/ APS Signals?	>1 Refuge Island?	No. of Lanes Crossed at Once	>4 legs or high skew	Closed or limited x-walks	Channelized Right Turns	Photo(s)?	Notes
	I M	15th	Alex Schell	W	N	N	1	2	6'	N (mid)	N	N	N			[illegible]						median barrier / other
	I M	"	"	E	N	Y	1	2	0	Y	N	N	N			[illegible]						
	I M	15th	G Ave	N	Y	Y					N Y	Y				N	4	N		N	✓	
	I M	"	"	E	Y	N					Y	Y	N			N	4	N		N	✓	
	I M	G Ave	15th	S	Y	N					Y	N Y	Y			N	4	N		N	✓	No countdown
	I M	"	"	W	Y	Y					Y	Y	N			N	4	N		N	✓	
	I M	15th	Central Expy	[illegible]	Y	Y					Y	N	✓			N	6	N	Y			
	I M	"	" Welx	E	Y						N Y	Y	✓	✓	N	Y	5	N				Short cross time
	I M	Central E	15th	N	Y						[illegible]	Y	✓	✓	N	N	2	N				
	I M	"	"	S	Y						✓	✓	✓			N	4	N				
	I M																					
	I M	Municipal	15																			
	I M																					
	I M										Y	Y					2					auto ped signals
	I M	Municipal	K	W							[illegible]	[illegible]					3					delayed PED sig.
	I M	14th	G	W	Y						Y	Y	Y	Y	N		5	Y	N			not countdown
	I M	14	14	E	Y						Y	Y	Y	Y	N		4	N	N			
	I M	G	14	N	Y						Y	Y	Y	Y	N		4	N	N			
	I M	G	14	S	Y						Y	Y	Y	Y	N	✓	3	N	N			
	I M	K	15	N	Y		1	3	N	Y	Y	Y	Y	Y	N	N	3					
	I M	K	15	S	Y		1	2	N	Y	Y	Y	Y	Y			2				-	auto ped sig
	I M	15	K	W	Y		1	2	N	Y	N	Y	Y	Y			2				-	
	I M	15	K	E	Y		1	3	N	Y	Y	N	Y	Y			3				-	
	I M	K	14																			auto ped
	I M	K	14																			
	I M	14	K																			
	I M	14	K																			
	I M	Mun.	14	N																		
	I M	Mun.	14	S																		auto ped
	I M	14	Municipal	W																		
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Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

Legend:
Complete in office, confirm in field
Confirm in field

LEE ENGINEERING

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Crossings

Date July, 31st 2018 Station Area Downtown Plano Staff Name

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	If Signalized: Permitted: Left Turns?	Right Turns?	Countdown Ped. Signals?	Pushbuttons: Functional?	w/ APS Signals?	>1 Refuge Island?	No. of Lanes Crossed at Once	>4 legs or high skew	Closed or limited x-walks	Channelized Right Turns	Photo(s)?	Notes
	I M																					
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Choose:
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M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

Legend:
Complete in office, confirm in field
Confirm in field

LEE ENGINEERING

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Crossings

Date: July, 31st 2018 | Station Area: Downtown Plano | Staff Name: ______

							If No Stop Control (i.e. if Free or Signal)				If Signalized											
							No. Lanes Crossed				Permitted			Pushbuttons								
Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	Left Turns?	Right Turns?	Countdown Ped. Signals?	Functional?	w/ APS Signals?	>1 Refuge Island?	No. of Lanes Crossed at Once	>4 legs or high skew	Closed or limited x-walks	Channelized Right Turns	Photo(s)?	Notes
	(I) M	K Ave	18th	S	N	N	3	6	N	Y	Y	Y	N	Y	N	N	6	N	N	N	Y	
	I M	8th	K Ave	E	N	N	3	6	N	Y	Y	Y	N	Y	N	N	7	N	N	N	Y	
	I M	~~8th~~ K Av	18th	N	N	N	3	4	N	Y	Y	Y	N	Y	N	N	~~6~~ 5	N	N	N	Y	NEC E. Pole blocks Ramp
	I M	18th	K Ave	W	N	N	3	6	N	Y	Y	Y	N	Y	N	N	7	N	N	N	Y	
	I M	~~18th~~	~~K Ave~~	~~S~~	~~Y~~	~~Y~~	~~2~~	~~4~~	~~N~~	~~Y~~	~~N~~	~~N~~	~~N~~								Y	
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Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

Legend:
Complete in office, confirm in field
Confirm in field

LEE ENGINEERING

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

unsignalized

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Crossings

Date: July, 30th 2018 | Station Area: Downtown Plano | Staff Name: ______

							If No Stop Control (i.e. if Free or Signal)				If Unsignalized with no Stop Control (i.e. Free)						
							No. Lanes Crossed						2-Min. Traffic Count*				
Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	Speed Limit (mph)	One Way?	Time	Volume	Treatment present (circle all)	Photo(s)?	Notes
	I M	~~4th~~ Aley	15th	W						—		Y (N)			Mkg RSg RRFB InSgn Cex RCwk		median w/ curb
	I M	"	"	E						—		Y (N)			(Mkg) (RSg) RRFB InSgn Cex RCwk		
	I M	13th/14th	central	E	Y	N	1	2	N	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk		Poor ped ramps
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	14th	J	W			2	4	2'	N		Y (N)	3:10	36	Mkg RSg RRFB InSgn Cex RCwk		Signage for x ped
	I M	14th	J	E			2	4	0	N		Y (N)	3:10	36	Mkg RSg RRFB InSgn Cex RCwk		but no xing
	I M	J	14th	S			1	2	0	Y		Y (N)	3:00	5	Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~14th~~	~~I~~									Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

* if ADT is not avail.

Condition Options:
Mkg = Markings
Rsg = Roadside signage
RRFB = Rapid Flash Rect. Beacon
InSgn = In-street signs
Cex = Curb extensions
RCwk = Raised crosswalk

Legend:
Complete in office, confirm in field
Confirm in field

LEE ENGINEERING

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Crossings

Date July, 30th 2018 Station Area Downtown Plano Staff Name

							If No Stop Control (i.e. if Free or Signal)				If Unsignalized with no Stop Control (i.e. Free)						
							No. Lanes Crossed						2-Min. Traffic Count*				
Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	Speed Limit (mph)	One Way?	Time	Volume	Treatment present (circle all)	Photo(s)?	Notes
	I M	G Av	17th	E	N	Y	1	2	0	Y	30	Y [✓ N]	4:02	19	Mkg RSg RRFB InSgn Cex RCwk	Y	No marked crosswalk
	I M	G Av	17th	W	N	Y	1	2	0	Y	30	Y [✓ N]	4:02	19	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	17th	G Av	N	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	17th	G AV	S	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	G	19th	E	N	N	1	2	0	Y	30	Y [✓ N]	4:31	85	Mkg RSg RRFB InSgn Cex RCwk	Y	Light on SEC
	I M	G	19th	W	N	N	1	2	0	Y	30	Y [✓ N]	4:31	85	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	19th	G	N	Y	N	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	19th	G	S	Y	N	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	G	Haggard	W	N	Y	1	2	0	N	30	Y [✓ N]	4:48	8	Mkg RSg RRFB InSgn Cex RCwk	Y	~~Light on~~
	I M	G	Haggard	E	N	Y	1	2	0	N	30	Y [✓ N]	4:48	8	Mkg RSg RRFB InSgn Cex RCwk	Y	No Roadway on E Side
	I M	Haggard	G	N	Y	Y	1	2	0	N	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	Haggard	G	S	Y	Y	1	2	0	N	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	No Ramp on SW C
	I M	K Av	15 Pl	W	N	Y	2	2	0	Y	30	[✓ Y] N	5:46	52	Mkg RSg RRFB InSgn Cex RCwk	Y	No marked crosswalk on S
	I M	K Av	15 Pl	E	N	Y	2	2	0	Y	30	[✓ Y] N	5:46	52	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	15 Pl	K Ave	N	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	15 Pl	K Ave	S	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	No E side Roadway
	I M	K Av	16th St	W	N	Y	2	2	0	N	30	Y N	5:52	16	Mkg RSg RRFB InSgn Cex RCwk	Y	No E Side Roadway
	I M	K Av	16th St	E	N	Y	2	2	0	Y	30	Y N	5:52	16	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	16th	K Ave	N	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	No Ramp on SE C
	I M	16th	K Ave	S	Y	Y	1	2	0	N	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

* if ADT is not avail.

Condition Options:
Mkg = Markings
Rsg = Roadside signage
RRFB = Rapid Flash Rect. Beacon
InSgn = In-street signs
Cex = Curb extensions
RCwk = Raised crosswalk

Legend:
Complete in office, confirm in field
Confirm in field

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---

N

★ A = Assume

x = Flashing yellow ped lights. veh. don't yield to peds. candidate for RRFB / HAWK

** No Ramp on the North side

DART Red & Blue Line Last Mile Connections Project
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Date July, 30th 2018 Station Area Downtown Plano Staff Name

							If No Stop Control (i.e. if Free or Signal)				If Unsignalized with no Stop Control (i.e. Free)						
							No. Lanes Crossed						2-Min. Traffic Count*				
Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	Speed Limit (mph)	One Way?	Time	Volume	Treatment present (circle all)	Photo(s)?	Notes
	I M	15th	Municipal Ave	N	-	Yes	1*	3	-	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	Municipal Av	L	E	N	Yes	3	3	N	Y	30	[✓ Y] N	8:22	11	Mkg RSg RRFB InSgn Cex RCwk	Y	N Crossing Markings (Same Above)
	I M	L	Municipal Av	S	Y	Y	1	2	N	Y	30A	Y [✓ N]	8:22	3	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	Municipal	L	W	N	Yes	3	3	N	Y	30	[✓ Y] N	8:22	11	Mkg RSg RRFB InSgn Cex RCwk	Y	N Crossing Marking
	~~[✓ I] M~~	~~K Ave~~	~~18th St~~	~~S~~	~~N~~	~~N~~	~~3~~	~~6~~	~~0~~	~~Y~~	~~30~~	~~Y [✓ N]~~			~~Mkg RSg RRFB InSgn Cex~~ RCwk	Y	
	I M	18th	L Ave	S	Y	Y	2	4	0	Y	30	Y [✓ N]			[✓ Mkg] RSg RRFB InSgn Cex RCwk	Y	N CW on W&N Side
	I M	L Ave	18th	E	Y	Y	1	2	0	Y	30	Y [✓ N]			[✓ Mkg] RSg RRFB InSgn Cex RCwk	Y	
	I M	18th	M	S	N	N	1	2	0	Y	30	Y [✓ N]	9:34	8	Mkg RSg RRFB InSgn Cex RCwk	Y	No Crosswalk Marking Schl @ NEC
	I M	18th	M	N	N	N	1	2	0	Y	30	Y [✓ N]	9:34	8	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	M	18th	E	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	M	18th	W	Y	N	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	18th	M	S	N	N	1	2	0	N**	30	Y [✓ N]	9:40	6	Mkg RSg RRFB InSgn Cex RCwk	Y	No Ped Cross Marking
	I M	18th	M	N	N	N	1	2	0	N**	30	Y [✓ N]	9:40	6	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	M	18th	E	Y	Y	1	2	0	Y	30	Y [✓ N]			[✓ Mkg] RSg RRFB InSgn Cex RCwk	Y	
	I M	18th	N Ave	S	Y	N	1	2	0	Y	30	Y [✓ N]			[✓ Mkg] RSg RRFB InSgn Cex RCwk	Y	
	I M	18th	N Ave	N	Y	N	1	2	0	Y	30	Y [✓ N]			[✓ Mkg] RSg RRFB InSgn Cex RCwk	Y	
	I M	N Ave	18th	E	Y	N	1	2	0	Y	30	Y [✓ N]			[✓ Mkg] RSg RRFB InSgn Cex RCwk	Y	
	I M	N Ave	18th	W	Y	N	1	2	0	Y	30	Y [✓ N]			[✓ Mkg] RSg RRFB InSgn Cex RCwk	Y	
	I M	18th	N Place	S	N	N	1	2	0	N	30	Y [✓ N]	9:53	5	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	18th	N Place	N	N	N	1	2	0	Y	30	Y [✓ N]	9:53	5	Mkg RSg RRFB InSgn Cex RCwk	Y	No crosswalk markings No Ramp on the North Side
	I M	N P	18th	E	Y	N	1	2	0	N	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	N P	18th	W	Y	N	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	K Ave	18th PL	W	N	N	3	6	0	Y	40	Y [✓ N]	10:40	45	Mkg RSg RRFB InSgn Cex RCwk	Y	No marked crosswalk
	I M	K Ave	18th PL	E	N	N	3	6	0	Y	40	Y [✓ N]	10:40	45	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	18th Pl	K Ave	N	Y	N	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	18th Pl	K Ave	S	Y	N	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	18th St	J Ave/I	N	N	N	2	4	0	N	30	Y [✓ N]	10:55	21	Mkg RSg RRFB InSgn Cex RCwk	Y	No Ramp on the north Side of J Ave
	I M	18th St	J Ave/I	S	N	N	2	4	0	N	30	Y [✓ N]	10:55	21	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	I Ave	18th St	E	Y	N	2	4	0	N	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	
		I Ave	18th St	W	Y	N	2	4	0	Y	30	[✓ N]				Y	

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

* if ADT is not avail.

Condition Options:
Mkg = Markings
Rsg = Roadside signage
RRFB = Rapid Flash Rect. Beacon
InSgn = In-street signs
Cex = Curb extensions
RCwk = Raised crosswalk

Legend:
Complete in office, confirm in field
Confirm in field

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17th & I: No Ramp on E side
light on SW c
Parking on E side
W Leg Stop Controlled

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Crossings

Date July, 30th 2018 Station Area Downtown Plano Staff Name

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	No. Lanes Crossed: Total	Med. Refuge Width	Both Ped. Ramps Present?	If Unsignalized with no Stop Control (i.e. Free): Speed Limit (mph)	One Way?	2-Min. Traffic Count*: Time	2-Min. Traffic Count*: Volume	Treatment present (circle all)	Photo(s)?	Notes
	I M	18th St	H Ave	N	N	Y	2	4	0	Y	30	Y N	11:04	12	Mkg RSg RRFB InSgn Cex RCwk	Y	No crosswalk
	I M	18th St	H Ave	NE	Y	Y	2	4	0	Y	30	Y N	11:04	12	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	H Ave	18th St	SE	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	mark
	I M	H Ave	18th St	W	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	light pole on SWC
	I M	18th St	G Ave	N	Y	Y	2	4	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	18th St	G Ave	S	Y	Y	2	4	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	G Ave	18th St	E	Y	Y	2	4	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	light on NE &
	I M	G Ave	18th St	W	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	No Ped marking
	I M	16th	H Ave	N	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	Cross
	I M	16th	H Ave	S	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	H Ave	16th	E	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	No Crosswalk
	I M	H Ave	16th	W	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	markings
	I M	16th St	75NBFR	NE	Y	N	1	2	0	N	30	Y N	1:54	32	Mkg RSg RRFB InSgn Cex RCwk	Y	No Ramp,
	I M	~~16th St~~	75NBFR	SE	Y	N	1	2	0	N	30	Y N	1:54	32	Mkg RSg RRFB InSgn Cex RCwk	Y	No marking
	I M	75NBFR	16th Ave	SW	N	N	2	2	0	N	50*	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	75NBFR	16th Ave	NW	N	N	2	2	0	N	50*	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	18th St	E Ave	NE	N	N	1	2	0	N	30	Y N	2:00	3	Mkg RSg RRFB InSgn Cex RCwk	Y	No marking
	I M	16th St	E Ave	SE	N	N	1	2	0	N	30	Y N	2:00	3	Mkg RSg RRFB InSgn Cex RCwk	Y	Ramp only on SWC
	I M	E Ave	16th St	E	Y	N	1	2	0	N	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	E Ave	16th St	W	Y	N	1	2	0	N	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	16th	E Ave	N	N	N	1	2	0	N	30	Y N	2:30	2	Mkg RSg RRFB InSgn Cex RCwk	Y	No Ramp on N Side
	I M	16th	E Ave	NE	N	N	1	2	0	N	30	Y N	2:30	2	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	E Ave	16th St	E	N/A	N	N/A	N/A	0	N/A	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	E Ave	16th St	W	Y	N	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	G Ave	16th St	N	N	Y	1	2	0	Y	30	Y N	2:54	11	Mkg RSg RRFB InSgn Cex RCwk	Y	No crosswalk marking
	I M	G Ave	16th St	S	N	Y	1	2	0	Y	30	Y N	2:54	11	Mkg RSg RRFB InSgn Cex RCwk	Y	light on NE &
	I M	16th St	G Ave	E	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	16th St	G Ave	W	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	SE corner
	I M	H Ave	17th	NE	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	light on NW & SE c
	I M	H Ave	17th	SW	Y	Y	1	2	0	Y	30	Y N			Mkg RSg RRFB InSgn Cex RCwk	Y	No Ped crossing marking S

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

* if ADT is not avail.

Condition Options:
Mkg = Markings
Rsg = Roadside signage
RRFB = Rapid Flash Rect. Beacon
InSgn = In-street signs
Cex = Curb extensions
RCwk = Raised crosswalk

Legend:
Complete in office, confirm in field
Confirm in field

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DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 07/31/18
Station ~~Downtown~~ Plano
Staff Name LL HB
Location N Place (18th to N limit)

Instructions: When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? Not final

Trees? 5@ feet back

Slopes? No

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? N/A

Take photos and notes to document.

* May need to buy some right-of-way close to 75

Sidewalk on S side is present between rice field & Alta Vista Apartment Driveway.

Other Notes:

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DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date _____
Station _____
Staff Name _____
Location 18th St. (N side) between rice field & W. limit

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? Maybe

Underground utilities? Maybe

Trees? No

Slopes? No

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date _____
Station _____
Staff Name _____
Location E (between 16th & 15th) East side

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? Yes, power line.

Underground utilities? Maybe

Trees? Yes, South side of parking lot @ SEC of E&16

Slopes? ~~No~~ Some (Maybe 3%)

Other structures? NO

Rail crossings? No

Business parking/access management issues? Parking lot.

Insufficient bridge width? N/A

Take photos and notes to document. ✓

Other Notes: Some sidewalk along Chase Bank Building.

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date _____
Station _____
Staff Name _____
Location 16th (between Central & E)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? Yes, Cable

Underground utilities? maybe

Trees? No

Slopes? No

Other structures? N/A

Rail crossings? No

Business parking/access management issues? Yes, Taylor Rental

Insufficient bridge width? N/A

Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date _____
Station _____
Staff Name _____
Location 16th St. (~~between~~ H & I)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? ~~Yes~~ Yes, light

Underground utilities? ~~Yes~~ light cable

Trees? Some

Slopes? No

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? N/A

Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 7/31/18
Station Dtn. Plano
Staff Name Josh
Location F Ave from 13th/14th Conn. to 14th (both sides)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? Y

Underground utilities? Y

Trees? Y

Slopes? N

Other structures? N

Rail crossings? N

Business parking/access management issues? N

Insufficient bridge width? N

Take photos and notes to document. Y

Other Notes: Undeveloped land use ... probably wait until developed

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 7/31/18
Station Dtn. Plano
Staff Name Josh
Location 14th E of U.S. 75

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? N

Underground utilities? Y San. Sewer

Trees? N

Slopes? Y

Other structures? N

Rail crossings? N

Business parking/access management issues? 1 driveway, rental car parking

Insufficient bridge width? N

Take photos and notes to document. Y

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 7/31/18
Station Dtn. Plano
Staff Name Josh
Location E Ave. fr. 14th to 15th
west side

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? Y ~5' b/c near 14th < 4' b/c mid-block, ~5' north end

Underground utilities? ~~None obvs~~ Verizon box, storm drain

Trees? Flower bush

Slopes? Y

Other structures? N

Rail crossings? N

Business parking/access management issues? ~~None~~ Perp. parking near 15th

Insufficient bridge width? N

Take photos and notes to document. Y

Other Notes: Seems feasible except util pol. relocate (1) prob. needed

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 7/31/18
Station Dtn. Plano
Staff Name Josh
Location F Ave from 15th to 14th

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? Y On W side, ~4' from U.P, meter box to face of curb

Underground utilities? Y

Trees? N

Slopes? N

Other structures? Landscaping rocks

Rail crossings? N

Business parking/access management issues? 3 driveways

Insufficient bridge width? N

Take photos and notes to document. Y

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 7/31/18
Station Dtn. Plano
Staff Name Josh
Location Seg. F (H Ave. S of 14th St)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? Y

Underground utilities? Y 3' fr. Verizon pedestal to b/c at H & 14th SEC (2' farther to U.P. at same spot)

Trees? Y...@ 2.5' to 4' fr. b/c. on E side N of 13th

Slopes?

Other structures?

Rail crossings?

Business parking/access management issues?

Insufficient bridge width?

Take photos and notes to document.

Other Notes: Resident at NW corner of 12th and H said residents voted against SW's in past

Cemetary on E side S of 12th w/ U.P's in limited ROW makes SW across st. from Douglass Comm. Ctr. infeas.

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 7/31/18
Station Dtn. Plano
Staff Name Josh
Location Seg. G (H Ave fr. 15th to 14th)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? N

Underground utilities? Y

Trees? N

Slopes? N

Other structures? Chain link fence near end of SW

Rail crossings? N

Business parking/access management issues? N

Insufficient bridge width? N

Take photos and notes to document. Y

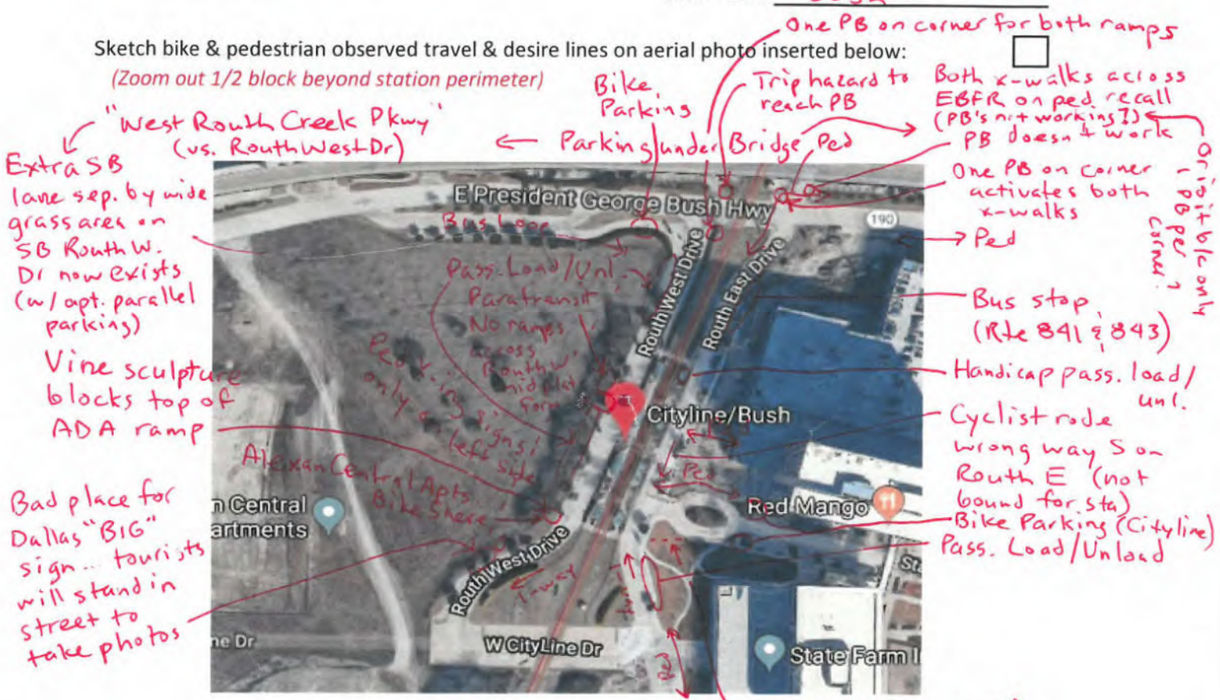
Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Stations

Date 8/7/18
Station Cityline / Bush
Staff Name Josh

Sketch bike & pedestrian observed travel & desire lines on aerial photo inserted below:
(Zoom out 1/2 block beyond station perimeter)



Are any desire lines missing a marked crossing location on a perimeter street, especially if mid-block? *(If Yes, note on sketch and add line with "New" link ID on Crossings Checklist)* — Y (N)

Note bike parking locations (covered vs. rack vs. bikeshare) — No bike parking seen (but dockless bike share yes)

Do any travel routes differ significantly from linear desire lines? — Y N

Note car & bus circulation patterns & conflict points — Y N

Bike and ped desire lines continuously lit? (Note where if not).

Trip hazards? Yes, see notes

Landscaping barriers? One, see note (ADA barrier only)

Fences? N

Absent ramps? N, but very few ramps have det. warn. surf.

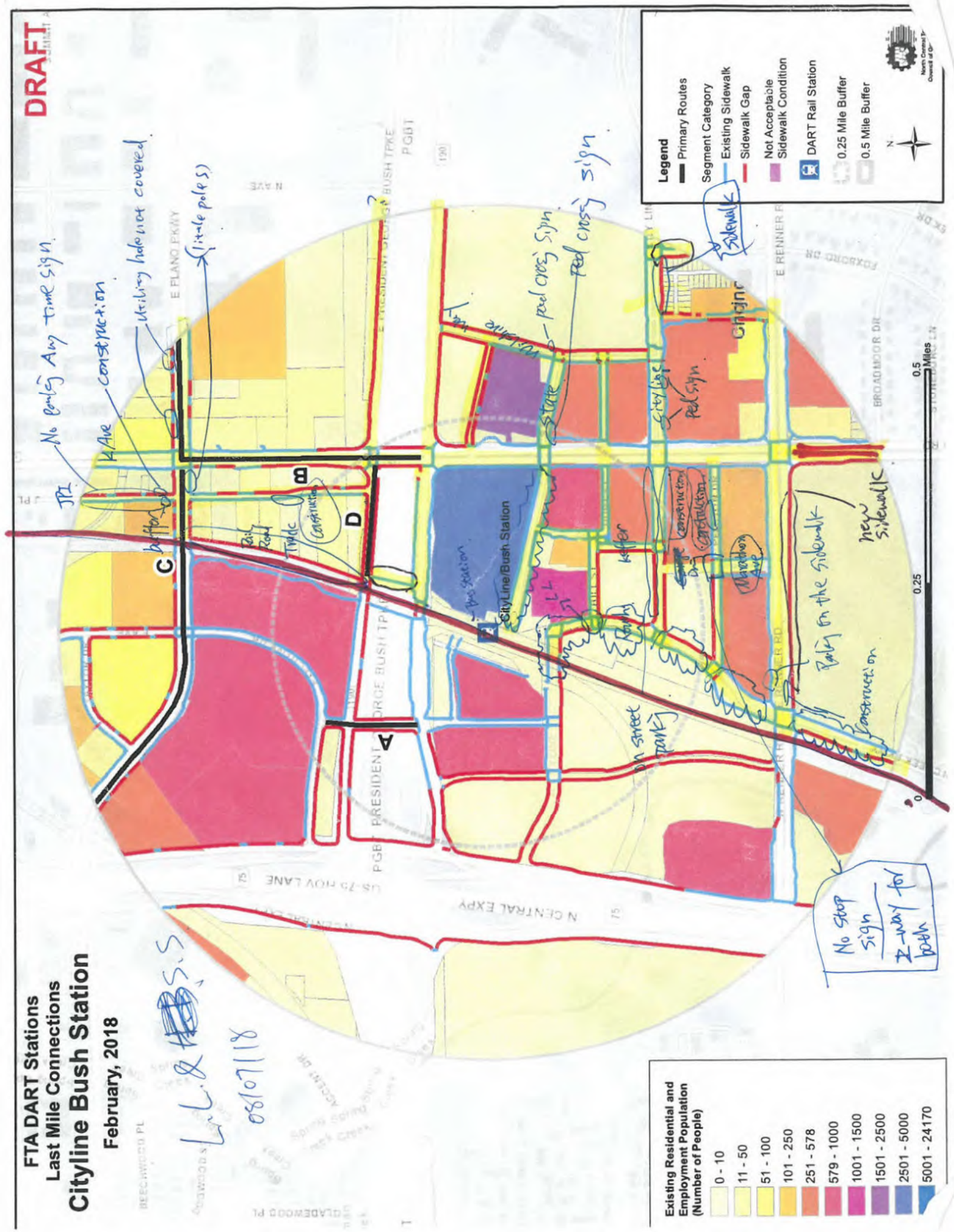
Bike/Pedestrian sight distance problems? N

Review questions (Post Construction Column) from p. 6-7 of Ped RSA Checklist

Other Notes:

See goat trail notes on larger station map. Incl. parking areas

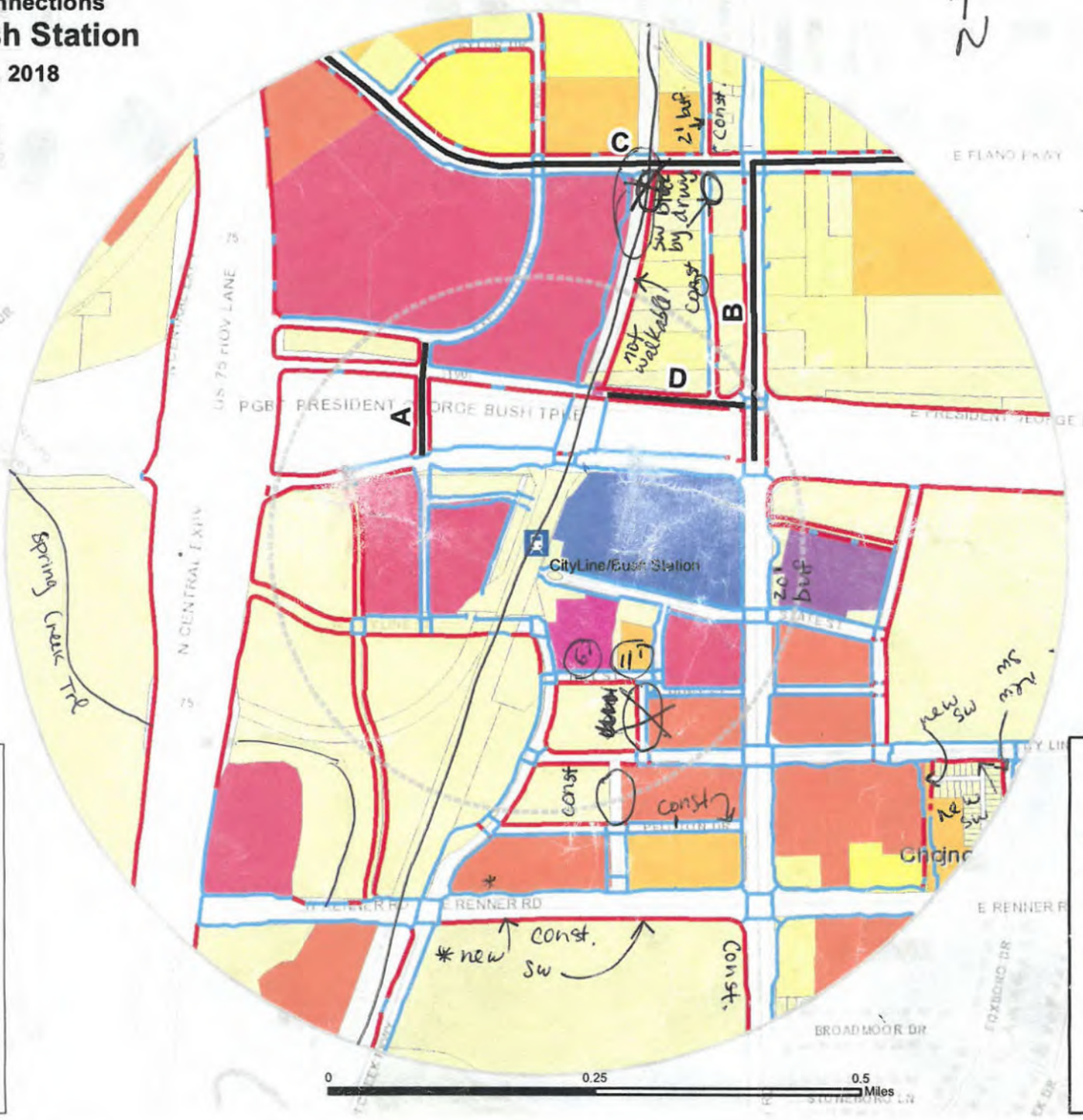
LEE ENGINEERING



FTA DART Stations
Last Mile Connections
Cityline Bush Station
February, 2018

DRAFT

8/7/18



Existing Residential and Employment Population (Number of People)
- 0 - 10
- 11 - 50
- 51 - 100
- 101 - 250
- 251 - 578
- 579 - 1000
- 1001 - 1500
- 1501 - 2500
- 2501 - 5000
- 5001 - 24170

Legend
- Primary Routes
- Segment Category
- Existing Sidewalk
- Sidewalk Gap
- Not Acceptable Sidewalk Condition
- DART Rail Station
- 0.25 Mile Buffer
- 0.5 Mile Buffer

North Central Texas Council of Governments

FTA DART Stations
Last Mile Connections
Cityline Bush Station
February, 2018

DRAFT

Existing Residential and Employment Population (Number of People)
- 0 - 10
- 11 - 50
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- 101 - 250
- 251 - 578
- 579 - 1000
- 1001 - 1500
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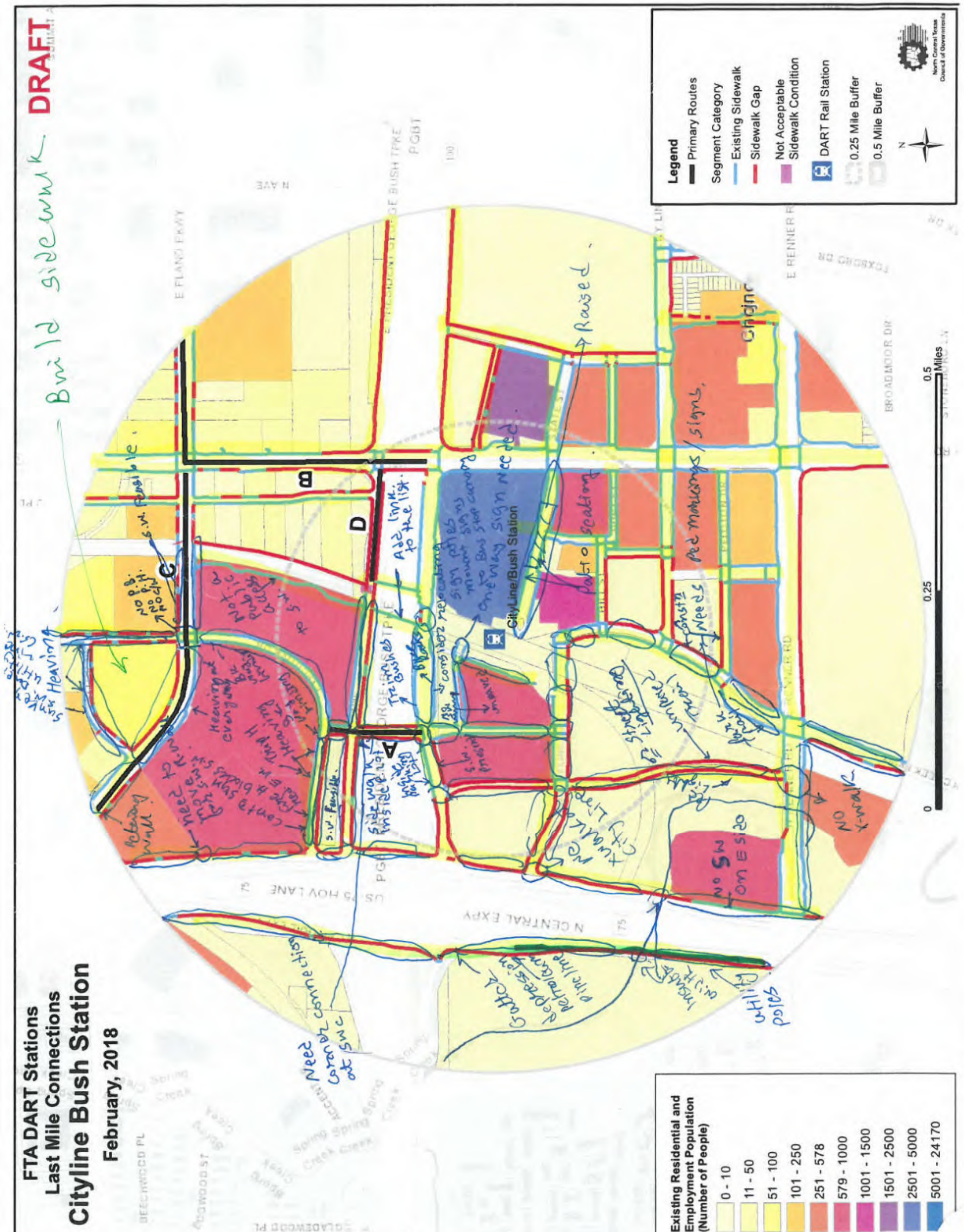
Legend
- Primary Routes
- Segment Category
- Existing Sidewalk
- Sidewalk Gap
- Not Acceptable Sidewalk Condition
- DART Rail Station
- 0.25 Mile Buffer
- 0.5 Mile Buffer

North Central Texas Council of Governments



8/7/8 Cityline. S.S. & L.L.

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width (ft) Actual	Sidewalk Width (ft) Eff.	Curb & Gutter?	Buffer Type	Buffer Width	Prevailing Speed or Speed Limit (mph)	On-Street Parking	Bike Lane	Shoulder	No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?	Condition Selection
172.1SG	9462	Routh Creek Pkwy	South Boundary	E Renner Rd	W	0	0	Y	N	0		8	0	0	2	-	2	N	
172.2	9452	Routh Creek Pkwy	South Boundary	E Renner Rd	E	10	10	Y	L	15		0	0	0	4	-	2	N	
172.3	9137	Routh Creek Pkwy	E Renner Rd	Hill Street	W	10	10	Y	L	15		8	0	0	2	-	2	N	
172.4	9235	Routh Creek Pkwy	E Renner Rd	Peloton Dr	E	10	10	Y	L	15		0	0	0	4	-	2	N	
172.5SG	9316	Routh Creek Pkwy	Peloton Dr	Hill Street	E	0	0	Y	N	0		8	0	0	2	-	2	N	N
173.1SG	9135	Routh Creek Pkwy	Hill Street	W CityLine Dr	W	0	0	Y	N	0		0	0	0	3	-	2	N	N
173.2SG	9233	Routh East Dr	W CityLine Dr	Dart Station	W	0	0	Y	N	0		0	0	0	1	N	2	N	N
173.3	8842	Routh East Dr	Dart Station	Dart Station	W	15	15	Y	N	0		0	0	0	1	N	2	Y	
173.4SG	8738	Routh East Dr	Dart Station	E President GB Hwy EB	W	0	0	Y	N	0		0	0	0	1	N	2	Y	N
174.1	8848	Routh East Dr	Hill Street	Dart Station	E	6	6	Y	N	0		0	0	0	1	N	2	Y	
174.2	8849	Routh East Dr	Dart Station	Dart Station	E	20	8	Y	N	0		0	0	0	1	N	2	Y	
174.3	9152	Routh East Dr	Dart Station	E President GB Hwy EB	E	10	10	Y	N	0	bus St.	0	0	0	1	N	2	N	E/G
175.1	8847	Routh West Dr	W CityLine Dr	E President GB Hwy EB	W	20	10	Y	S	10		0	0	0	1	S	2	N	
175.2SG	9132	Routh West Dr	W CityLine Dr	Dart Station	E	0	0	Y	N	0		0	0	0	1	S	2	Y	N
175.3	8843	Routh West Dr	Dart Station	Dart Station	E	20	8	Y	N	0		8	0	0	1	S	2	Y	
175.4	8740	Routh West Dr	Dart Station	E President GB Hwy EB	E	10	10	Y	N	0		0	0	0	1	S	2	N	
176.1	9327	Wilshire Way	E President GB Hwy EB	Heise Way	W	0	0	Y	N	0		0	0	0	2	-	2	N	N
176.2SG	9330	Wilshire Way	E President GB Hwy EB	Heise Way	E	0	0	Y	N	0		0	0	0	2	-	2	N	N
176.3	9438	Wilshire Way	Heise Way	State St	W	12	12	Y	N	0		0	0	0	2	-	2	Y	E/G
176.2SG	9330	Wilshire Way	Heise Way	State St	E	0	0	Y	N	0		0	0	0	2	-	2	N	N
176.4	9429	Wilshire Way	State St	E Cityline Dr	W	8	8	Y	N	0		40	0	0	2	-	2	N	E/G
176.5SG	9504	Wilshire Way	State St	E Cityline Dr	E	0	0	Y	N	0		40	0	0	2	-	2	N	N
177.1SG		Heise Way	Wilshire Way	N Plano Rd	N	0	0	Y	N	0		0	0	0	2	-	2	N	N
177.2		Heise Way	Wilshire Way	N Plano Rd	S	0	0	Y	N	0		0	0	0	2	-	2	N	N
177.3	9434	State St	Wilshire Way	N Plano Rd	N	10	10	Y	L	4		Y	0	0	2	-	2	N	E/G
177.4	9428	State St	Wilshire Way	N Plano Rd	S	13	13	Y	L	4		Y	0	0	2	-	2	N	↓
177.5	9158	State St	N Plano Rd	Routh East Drive	N			Y				0	0	0	2	-	2	N	
177.6	9164	State St	N Plano Rd	Routh East Drive	S			Y				0	0	0	2	-	2	N	
177.6	9163	Newton St	State St	Hill Street	W	6	6	Y	L	4		0	0	0	2	-	2	Y	E/G
177.7	9174	Newton St	State St	Hill Street	E	7	7	Y	L	4		Y	0	0	2	-	2	Y	E/G
178.1	9179	Hill St	Routh Creek Pkwy	Newton St	N	11	11	Y	L	6	30	Y	0	0	2	-	2	N	E/G
178.2	9287	Hill St	Routh Creek Pkwy	Newton St	S	0	0	Y	N	0	30	0	0	0	2	-	2	N	N
177.7	9174	Hunt St	Newton St	N Plano Rd	N	10	10	Y	N	0		0	0	0	2	-	2	Y	E/G
179.1	9280	Hunt St	Newton St	N Plano Rd	S	9.5	9.5	Y	N	0		0	0	0	2	-	2	Y	E/G
179.2SG	9294	Keffler St	Hill Street	E Cityline Dr	W	0	0	Y	N	0		Y/8	0	0	2	-	2	N	N
179.3	9285	Keffler St	Hill Street	E Cityline Dr	E	4	4	Y	L	10		8	0	0	2	-	2	N	E/G
179.4SG		E City Line Dr	Routh Creek Pkwy	Keffler St	N	0	0	Y	N	0	30	0	0	0	2	-	2	N	N
179.5	9305	E City Line Dr	Keffler St	N Plano Rd	N	10	10	Y	N	0	↓	0	0	0	2	-	2	N	E/G
172.5SG	9244	E City Line Dr	Routh Creek Pkwy	Keffler St	S	4	4	Y	N	0		0	0	0	2	-	2	N	E/G
168.6SG		E City Line Dr	Keffler St	N Plano Rd	S	0	0	Y	N	0		0	0	0	2	-	2	N	N
168.5SG	9396	E City Line Dr	N Plano Rd	Wilshire Way	N	10	10	Y	N	0		0	0	0	2	-	2	N	N
172.6		E City Line Dr	Wilshire Way	East Boundary	N	4	4	Y	N	0		0	0	0	2	-	2	N	const.
172.7	9342	E City Line Dr	N Plano Rd	East Boundary	S	4	4	Y	N	0		0	0	0	2	-	2	N	E/G
172.8SG		E City Line Dr	N Plano Rd	East Boundary	N	0	0	Y	N	0		0	0	0	2	-	2	N	N
173.1		Peloton Dr	Routh Creek Pkwy	Marathon Ave	N	0	0	Y	N	0		0	0	0	2	-	2	N	
173.2		Peloton Dr	Routh Creek Pkwy	Marathon Ave	S	12	12	Y	L	4		Y	0	0	2	-	2	N	E/G
173.3		Peloton Dr	Marathon Ave	N Plano Rd	N	0	0	Y	N	0		Y	0	0	2	-	2	Y	E/G
173.4		Peloton Dr	Marathon Ave	N Plano Rd	S	12	12	Y	N	0		0	0	0	2	-	2	Y	E/G
173.5		Marathon Ave	Peloton Dr	E Renner Rd	W	12	12	Y	L	2		0	0	0	2	-	2	Y	
173.6		Marathon Ave	Peloton Dr	E Renner Rd	E	13	13	Y	L	2		0	0	0	2	-	2	Y	↓
174.1SG		Red Moon Way	E Pres George Bush HWY	W CityLine Dr	W	0	0	Y	N	0		0	0	0	2	-	2	N	N
174.2SG		Red Moon Way	E Pres George Bush HWY	W CityLine Dr	E	0	0	Y	N	0		0	0	0	2	-	2	N	N
174.3SG		Red Moon Way	W CityLine Dr	E Renner Rd	W	0	0	Y	N	0		0	0	0	2	-	2	N	N
174.4SG		Red Moon Way	W CityLine Dr	E Renner Rd	E	0	0	Y	N	0		0	0	0	2	-	2	N	N
174.5SG		W CityLine Dr	N Central EXPY	Red Moon Way	N	0	0	Y	N	0		0	0	0	2	-	2	N	N
174.3SG		W CityLine Dr	N Central EXPY	Red Moon Way	S	0	0	Y	N	0		0	0	0	2	-	2	N	N
175.1		W CityLine Dr	Red Moon Way	Topridge Dr	N			Y				20	0	0	2	-	2	N	
175.2SG		W CityLine Dr	Red Moon Way	Topridge Dr	S	0	0	Y	N	0		20	0	0	2	-	2	N	N
175.3		W CityLine Dr	Topridge Dr	Routh West Drive	N			Y				20	0	0	2	-	2	N	
175.4SG		W CityLine Dr	Topridge Dr	Routh West Drive	S	0	0	Y	N	0		20	0	0	2	-	2	N	N
175.5		W CityLine Dr	Routh West Drive	Routh East Drive	N			Y				0	0	0	2	-	2	N	
175.6SG		W CityLine Dr	Routh West Drive	Routh East Drive	S	0	0	Y	N	0		0	0	0	2	-	2	N	N
176.1SG		N Central Expy	North boundary	E Pres George Bush HWY	W	0	0	Y	N	0		0	0	0	4	S	3		N
176.2SG		N Central Expy	E Pres George Bush HWY	South boundary	W	0	0	Y	N	0		0	0	0	4	S	3		N
176.3SG		N Central Expy	North boundary	E Pres George Bush HWY	E	0	0	Y	N	0		0	0	0	4	N	3		N
176.4SG		N Central Expy	W CityLine Dr	E Renner Rd	E	0	0	Y	N	0		0	0	0	4	N	3		N
		City Line	City Line	Renner	W	4	4	Y	L	10		0	0	0	2	-	1 2 3 4 (2 circled)	N	E/G
		Market dw			E	4	4	Y	L	10		0	0	0	2	-	1 2 3 4 (2 circled)	N	E/G
								Y									1 2 3 4		
								Y									1 2 3 4		
		Foxboro	City Line	S. bound.	W	5.5	5.5	Y	L	4		Y	0	0	2	-	1 2 3 4 (2 circled)	N	↓
					E	6	6	Y	N	0		Y	0	0	2	-	1 2 3 4 (2 circled)	N	
								Y									1 2 3 4		
								Y									1 2 3 4		
								Y									1 2 3 4		
								Y									1 2 3 4		
								Y									1 2 3 4		
								Y									1 2 3 4		
								Y									1 2 3 4		

For Side of Street, choose:
N NE
S SE
E NW
W SW

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

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Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.

8/7/18

DART Red & Blue Line Last Mile Connections Project

Field Data Checklist - Sidewalks

Date 8/7/18 Station Area **Cityline/Bush** Staff Name S.S & L.L.

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width (ft) Actual	Sidewalk Width (ft) Eff.	Curb & Gutter?	Buffer Type	Buffer Width	Prevailing Speed or Speed Limit (mph)	Street Widths (ft) On-Street Parking	Street Widths (ft) Bike Lane	Street Widths (ft) Shoulder	Street Widths (ft) No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?	Condition Selection
150.1	8772	F Ave	North boundary	Taylor Dr	W	4	4	Y	L	3		0	0	10	2	-	3	N	
150.2SG	8955	F Ave	North boundary	Taylor Dr	E	0	0	Y	N	0		0	0	10	2	-	3	N	N
150.3SG	8950	F Ave	Taylor Dr	E Plano Pkwy	W	0	0	Y	N	0		0	0	10	2	-	3	N	N
150.4SG	8958	F Ave	Taylor Dr	E Plano Pkwy	E	0	0	Y	N	0		0	0	10	2	-	3	N	N
150.5	8769	Executive 600	E Plano Pkwy	Crawford	W	4	4	Y	L	3		0	0	0	4	-	2	N	
150.7	8973	Executive 600	E Plano Pkwy	Crawford	E	6	6	Y	L	1		0	0	0	4	-	2	Y	
150.6	8745	Executive 600	Crawford	Central EXPY	N	4	4	Y	L	3		0	0	0	4	-	2	N	
150.8SG	9047	Executive 600	Crawford	Central EXPY	S	0	0	Y	N	0		0	0	0	4	-	2	N	N
160.1	8777	Taylor Dr	F Ave	E Plano Pkwy	N	4	4	Y	L	7		0	0	10	2	-	3	N	
160.2SG	9037	Taylor Dr	F Ave	E Plano Pkwy	S	0	0	Y	N	0		0	0	10	2	-	3	N	N
161.1SG	9048	Crawford Rd	Executive 600	E President GB Hwy WB	W	0	0	Y	N	0	25	0	0	0	4	-	3	N	N
161.2	8978	Crawford Rd	Executive 600	E President GB Hwy WB	E	6	6	Y	N	0	25	0	0	0	4	-	3	N	
161.3SG	9059	Crawford Rd	E President GB Hwy WB	E President GB Hwy EB	W	0	0	Y	N	0	25	0	0	0	4	-	2	N	N
161.4SG	9558	Crawford Rd	E President GB Hwy WB	E President GB Hwy EB	E	0	0	Y	N	0	25	0	0	0	4	-	2	N	N
162.1	8834	E Plano Pkwy	West boundary	Taylor Dr	NE	4	4	Y	L	4	40	0	0	0	6	-	3	N	
162.2SG	8937	E Plano Pkwy	West boundary	Taylor Dr	SW	0	0	Y	N	0	40	0	0	0	6	-	3	N	N
163.2SG	8935	E Plano Pkwy	Taylor Dr	F Ave	N	0	0	Y	N	0	40	0	0	0	6	-	3	N	N
163.4	8790	E Plano Pkwy	Taylor Dr	F Ave	S	4	4	Y	L	4	40	0	0	0	6	-	3	N	
163.5SG	8980	E Plano Pkwy	F Ave	Railroad	N	0	0	Y	N	0	40	0	0	0	6	-	3	N	N
150.7	8973	E Plano Pkwy	F Ave	Railroad	S	6	6	Y	L	1	40	0	0	0	6	-	3	Y	
164.1	8768	E Plano Pkwy	Railroad	Railroad	N	6	6	Y	N	0	40	0	0	0	6	-	3	N	
164.2SG	8987	E Plano Pkwy	Railroad	K Ave	N	0	0	Y	N	0	40	0	0	0	6	-	3	N	N
164.3	8768	E Plano Pkwy	Railroad	Railroad	S	6	6	Y	N	0	40	0	0	0	6	-	3	N	
164.4SG	8981	E Plano Pkwy	Railroad	J Pl	S	0	0	Y	N	0	40	0	0	0	6	-	3	N	N
164.5	8812	E Plano Pkwy	J Pl	K Ave	S	8	6	Y	N	0	45	0	0	0	6	-	3	N	
164.6SG	9009	E Plano Pkwy	K Ave	East Boundary	N	0	0	Y	N	0	45	0	0	0	6	-	3	N	N
164.7	8919	E Plano Pkwy	K Ave	QT	S	8	6	Y	N	0	45	0	0	0	6	-	3	N	
164.8SG	8920	E Plano Pkwy	QT	drainage	S	0	0	Y	N	0	45	0	0	0	6	-	3	N	N
164.9	8754	E Plano Pkwy	drainage	East Boundary	S	4	4	Y	L	12	45	0	0	0	6	-	3	N	
176.1	8818	J Pl	North boundary	E Plano Pkwy	W			Y								-	2		
176.2SG	8993	J Pl	North boundary	E Plano Pkwy	E	0	0	Y								-	2		N
176.3	8803	J Pl	E Plano Pkwy	E President GB Hwy WB	W			Y								-	2		
176.4	8799	J Pl	E Plano Pkwy	Open Lot	E			Y								-	2		
176.5SG	9024	J Pl	Open Lot	shop	E	0	0	Y								-	2		N
176.6	9025	J Pl	shop	Open Lot	E			Y								-	2		
176.7SG	9026	J Pl	Open Lot	E President GB Hwy WB	E	0	0	Y								-	2		N
165.1	8800	K Ave	North boundary	E Plano Pkwy	W	4	4	Y	L	8	40	0	0	0	6	-	3	N	
165.2	8822	K Ave	E Plano Pkwy	Prime Time Ins Service	W	4	4	Y	L	4	40	0	0	0	6	-	3	N	
165.3SG	9019	K Ave	Prime Time Ins Service	Bund Wok	W	0	0	Y	N	0	40	0	0	0	6	-	3	N	N
165.4	9022	K Ave	Bund Wok	Bund Wok	W	4	4	Y	L	12	40	0	0	0	6	-	3	N	
165.5SG	9023	K Ave	Bund Wok	E President GB Hwy WB	W	0	0	Y	N	0	40	0	0	0	6	-	3	N	N
166.1	8765	K Ave	North boundary	E Plano Pkwy	E	4	4	Y	N	0	40	0	0	0	6	-	3	N	
166.2	8910	K Ave	E Plano Pkwy	Sherman Williams Paints	E	4	4	Y	N	0	40	0	0	0	6	-	3	N	
166.3	8915	K Ave	Sherman Williams Paints	United Tool Solutions	E	4	4	Y	L	2.5	40	0	0	0	6	-	3	N	N
166.4SG	9032	K Ave	United Tool Solutions	E President GB Hwy WB	E	0	0	Y	N	0	40	0	0	0	7	-	3	N	
167.1SG	9084	K Ave	E President GB Hwy WB	E President GB Hwy EB	W	0	0	Y	N	0	40	0	0	0	9	-	4	N	N
167.2SG	9324	K Ave	E President GB Hwy WB	E President GB Hwy EB	E	0	0	Y	N	0	40	0	0	0	9	-	4	N	N
168.1	9160	K Ave	E President GB Hwy EB	State St	W	4	4	Y	L	6	40	0	0	0	8	-	4	N	
168.2SG	9328	K Ave	E President GB Hwy EB	Heise Way	E	0	0	Y	N	0	40	0	0	0	8	-	4	N	N
168.3	9443	K Ave	Heise Way	State St	E	7	7	Y	L	4	40	0	0	0	6	-	3	N	
168.4	9169	K Ave	State St	E CityLine Dr	W	4	4	Y	L	6	40	0	0	0	6	-	3	N	
168.5SG	9432	K Ave	State St	E CityLine Dr	E	0	0	Y	N	0	40	0	0	0	6	-	3	N	N
168.6SG	9304	K Ave	E CityLine Dr	Peloton Dr	W	0	0	Y	N	0	40	0	0	0	6	-	3	N	N
168.7	9253	K Ave	Peloton Dr	E Renner Rd	W	4	4	Y	L	12	40	0	0	0	7	-	3	N	
168.8	9351	K Ave	E CityLine Dr	E Renner Rd	E	6	6	Y	L	4	40	0	0	0	6	-	3	N	
169.1SG	9451	K Ave	E Renner Rd	South boundary	W	0	0	Y	N	0	40	0	0	0	8	-	3	N	N
169.2	8816	K Ave	E Renner Rd	South boundary	E	5	5	Y	L	1	40	0	0	0	8	-	3	N	
170.1SG	9029	E President GB Hwy WB	East boundary	K Ave	N	0	0	Y	N	0		0	0	0	3	W	4	N	N
170.2SG	9070	E President GB Hwy WB	K Ave	Railroad	N	0	0	Y	N	0		0	0	0	3	W	4	N	N
170.3SG	8979	E President GB Hwy WB	Railroad	Crawford	N	5	5	Y	L	10		0	0	0	3	W	4	N	
170.4SG	9046	E President GB Hwy WB	Crawford	Central (US 75)	N	0	0	Y	N	0		0	0	0	3	W	4	N	
170.5SG	9326	E President GB Hwy EB	East boundary	K Ave	S	0	0	Y	N	0		0	0	0	3	E	4	N	N
170.6	9154	E President GB Hwy EB	K Ave	Routh East Drive	S	4	4	Y	L	6		0	0	0	5	E	4	N	
170.7	9110	E President GB Hwy EB	Routh East Drive	Routh West Drive	S	8	8	Y	N	0		0	0	0	3	E	4	N	
170.8	8742	E President GB Hwy EB	Routh West Drive	Topridge Dr	S	12	6	Y	N	0		0	0	0	2	E	4	N	
170.9SG	9188	E President GB Hwy EB	Topridge Dr	Central (US 75)	S	12	6	Y	N	0		0	0	0	3	E	4	N	N
171.1	9358	E Renner Rd	East boundary	N Plano Rd	N	12	12	Y	L	6		0	0	0	8	-	3	N	
171.2	9255	E Renner Rd	N Plano Rd	Routh Creek Pkwy	N	12	12	Y	L	15		0	0	0	8	-	3	Y	
171.3	9138	W Renner Rd	Routh Creek Pkwy	Red Moon Way	N	10	10	Y	L	2		0	0	0	7	-	3	N	
171.4SG	9115	W Renner Rd	Red Moon Way	Central (US 75)	N	0	0	Y	N	0		0	0	0	6	-	3	N	N
171.5	8816	E Renner Rd	East boundary	N Plano Rd	S	5	5	Y	L	3		0	0	0	8	-	3	Y	
169.1SG	9451	E Renner Rd	N Plano Rd	Routh Creek Pkwy	S	0	0	Y	N	0		0	0	0	8	-	3	N	N
171.6	9460	W Renner Rd	Routh Creek Pkwy	Red Moon Dr	S	10	10	Y	N	0		0	0	0	7	-	3	N	
171.7	9455	W Renner Rd	Red Moon Dr	construction	S	4	4	Y	L	4		0	0	0	6	-	3	N	
171.8SG	9458	W Renner Rd	construction	Central (US 75)	S	0	0	Y	N	0		0	0	0	6	-	3	N	N

For Side of Street, choose:
N NE
S SE
E NW
W SW

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

LEE ENGINEERING

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.

DART Red & Blue Line Last Mile Connections Project

Field Data Checklist - Sidewalks

Date Station Area **Cityline/Bush** Staff Name

For Side of Street, choose:
N NE
S SE
E NW
W SW

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

LEE ENGINEERING

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width (ft) Actual	Eff.	Curb & Gutter?	Buffer Type	Buffer Width	Prevailing Speed or Speed Limit (mph)	On-Street Parking	Bike Lane	Shoulder	No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?	Condition Selection
172.1SG	9462	Routh Creek Pkwy	South Boundary	E Renner Rd	W	0	0	Y	N	0		8	0	0	2	-	2	N	
172.2	9452	Routh Creek Pkwy	South Boundary	E Renner Rd	E	10	10	Y	L	15		0	0	0	4	-	2	N	
172.3	9137	Routh Creek Pkwy	E Renner Rd	Hill Street !	W	10	10	Y	L	15	30 A	8	0	0	2	-	1 2	N	E/G
172.4	9235	Routh Creek Pkwy	E Renner Rd	Peloton Dr	E	10	10	Y	L	15	30 A	0	0	0	4	-	1 2	N	E/G
172.5SG	9316	Routh Creek Pkwy	Peloton Dr	~~Hill Street~~ Renner	W	10 0	10 0	Y	~~S~~ L	10	30 A	0	0	0	2	-	1 2	N	E/G
173.1SG	9135	Routh Creek Pkwy	~~Hill Street~~ Peloton	W CityLine Dr	W	10 0	10 0	Y	L	15	30 A	0	0	0	2	-	1 2	N	E/G
173.2SG	9233	Routh East Dr	W CityLine Dr	Dart Station	W	0	0	Y	N	0		0	0	0	1	N	2	N	N
173.3	8842	Routh East Dr	Dart Station	Dart Station	W	15	15	Y	N	0		0	0	0	1	N	2	Y	
173.4SG	8738	Routh East Dr	Dart Station	E President GB Hwy EB	W	0	0	Y	N	0		0	0	0	1	N	2	Y	N
174.1	8848	Routh East Dr	Hill Street	Dart Station	E	6	6	Y	N	0		0	0	0	1	N	2	Y	
174.2	8849	Routh East Dr	Dart Station	Dart Station	E	20	8	Y	N	0		0	0	0	1	N	2	Y	
174.3	9152	Routh East Dr	Dart Station	E President GB Hwy EB	E	10	8	Y	N	0		0	0	0	1	N	2	N	E/G
175.1	8847	Routh West Dr	W CityLine Dr	E President GB Hwy EB	W	20	10	Y	S	10		0	0	0	1	S	2	N	E/G
175.2SG	9132	Routh West Dr	W CityLine Dr	Dart Station	E	0	0	Y	N	0		0	0	0	1	S	2	Y	N
175.3	8843	Routh West Dr	Dart Station	Dart Station	E	20	8	Y	N	0		8	0	0	1	S	2	Y	E/G
175.4	8740	Routh West Dr	Dart Station	E President GB Hwy EB	E	10	10	Y	N	0		0	0	0	1	S	2	N	E/G
176.1	9327	Wilshire Way	E President GB Hwy EB	Heise Way	W	0	0	Y	N	0		0	0	0	2	-	2	N	N
176.2SG	9330	Wilshire Way	E President GB Hwy EB	Heise Way	E	0	0	Y	N	0		0	0	0	2	-	2	N	N
176.3	9438	Wilshire Way	Heise Way	State St	W			Y	N	0		0	0	0	2	-	2	N	
176.2SG	9330	Wilshire Way	Heise Way	State St	E	0	0	Y	N	0		0	0	0	2	-	2	N	N
176.4	9429	Wilshire Way	State St	E Cityline Dr	W			Y	N	0		40	0	0	2	-	2	N	
176.5SG	9504	Wilshire Way	State St	E Cityline Dr	E	0	0	Y	N	0		40	0	0	2	-	2	N	N
177.1SG		Heise Way	Wilshire Way	N Plano Rd	N			Y				0	0	0	2	-	2	N	
177.2		Heise Way	Wilshire Way	N Plano Rd	S			Y				0	0	0	2	-	2	N	
177.3	9434	State St	Wilshire Way	N Plano Rd	N			Y				0	0	0	2	-	2	N	
177.4	9428	State St	Wilshire Way	N Plano Rd	S			Y				0	0	0	2	-	2	N	
177.5	9158	State St	N Plano Rd	Routh East Drive	N	20	4-10	Y	L	10	30 A	0	0	0	2	-	2	N	E/G
177.6	9164	State St	N Plano Rd	Routh East Drive	S	20	4-10	Y	L	10	30 A	0	0	0	2	-	2	N	E/G
177.6	9163	Newton St	State St	Hill Street	W			Y				0	0	0	2	-	2	N	
177.7	9174	Newton St	State St	Hill Street	E			Y				0	0	0	2	-	2	N	
178.1	9179	Hill St	Routh Creek Pkwy	Newton St	N			Y				0	0	0	2	-	2	N	
178.2	9287	Hill St	Routh Creek Pkwy	Newton St	S			Y				0	0	0	2	-	2	N	
177.7	9174	Hunt St	Newton St	N Plano Rd	N			Y				0	0	0	2	-	2	N	
179.1	9280	Hunt St	Newton St	N Plano Rd	S			Y				0	0	0	2	-	2	N	
179.2SG	9294	Keffler St	Hill Street	E Cityline Dr	W	0	0	Y	N	0		0	0	0	2	-	2	N	N
179.3	9285	Keffler St	Hill Street	E Cityline Dr	E	4	4	Y				0	0	0	2	-	2	N	
179.4SG		E City Line Dr	Routh Creek Pkwy	Keffler St	N	0	0	Y	N	0		0	0	0	2	-	2	N	N
179.5	9305	E City Line Dr	Keffler St	N Plano Rd	N	4	4	Y				0	0	0	2	-	2	N	
172.5SG	9244	E City Line Dr	Routh Creek Pkwy	Keffler St	S	4	4	Y				0	0	0	2	-	2	N	
168.6SG		E City Line Dr	Keffler St	N Plano Rd	S	0	0	Y	N	0		0	0	0	2	-	2	N	N
168.5SG	9396	E City Line Dr	N Plano Rd	Wilshire Way	N	0	0	Y	N	0		0	0	0	2	-	2	N	N
172.6		E City Line Dr	Wilshire Way	East Boundary	N	4	4	Y				0	0	0	2	-	2	N	
172.7	9342	E City Line Dr	N Plano Rd	East Boundary	S	4	4	Y				0	0	0	2	-	2	N	
172.8SG		E City Line Dr	N Plano Rd	East Boundary	S	0	0	Y	N	0		0	0	0	2	-	2	N	N
173.1		Peloton Dr	Routh Creek Pkwy	Marathon Ave	N			Y				0	0	0	2	-	2	N	
173.2		Peloton Dr	Routh Creek Pkwy	Marathon Ave	S			Y				0	0	0	2	-	2	N	
173.3		Peloton Dr	Marathon Ave	N Plano Rd	N			Y				0	0	0	2	-	2	N	
173.4		Peloton Dr	Marathon Ave	N Plano Rd	S			Y				0	0	0	2	-	2	N	
173.5		Marathon Ave	Peloton Dr	E Renner Rd	W			Y				0	0	0	2	-	2	N	
173.6		Marathon Ave	Peloton Dr	E Renner Rd	E			Y				0	0	0	2	-	2	N	
174.1SG		Red Moon Way	E Pres George Bush HWY	W CityLine Dr	W	0	0	Y	N	0		0	0	0	2	-	2	N	N
174.2SG		Red Moon Way	E Pres George Bush HWY	W CityLine Dr	E	0	0	Y	N	0		0	0	0	2	-	2	N	N
174.3SG		Red Moon Way	W CityLine Dr	E Renner Rd	W	0	0	Y	N	0		0	0	0	2	-	2	N	N
174.4SG		Red Moon Way	W CityLine Dr	E Renner Rd	E	0	0	Y	N	0		0	0	0	2	-	2	N	N
174.5SG		W CityLine Dr	N Central EXPY	Red Moon Way	N	0	0	Y	N	0	30 A	0	0	0	4	-	2	N	N
174.3SG		W CityLine Dr	N Central EXPY	Red Moon Way	S	0	0	Y	N	0	30 A	0	0	0	4	-	? 2 X	N	N
175.1		W CityLine Dr	Red Moon Way	Topridge Dr	N			Y				20	0	0	2	-	? 2 X	N	N
175.2SG		W CityLine Dr	Red Moon Way	Topridge Dr	S	0	0	Y	N	0		20	0	0	2	-	2	N	N
175.3		W CityLine Dr	Topridge Dr	Routh West Drive	N			Y				20	0	0	2	-	2	N	
175.4SG		W CityLine Dr	Topridge Dr	Routh West Drive	S	0	0	Y	N	0		20	0	0	2	-	2	N	N
175.5		W CityLine Dr	Routh West Drive	Routh East Drive	N			Y				0	0	0	2	-	2	N	
175.6SG		W CityLine Dr	Routh West Drive	Routh East Drive	S	0	0	Y	N	0		0	0	0	2	-	2	N	N
176.1SG		N Central Expy	North boundary	E Pres George Bush HWY	W	0	0	Y	N	0		0	0	0	4	S	3		N
176.2SG		N Central Expy	E Pres George Bush HWY	South boundary	W	0	0	Y	N	0		0	0	0	4	S	3		N
176.3SG		N Central Expy	North boundary	E Pres George Bush HWY	E	0	0	Y	N	0		0	0	0	4	N	3		N
176.4SG		N Central Expy	W CityLine Dr	E Renner Rd	E	0	0	Y	N	0		0	0	0	4	N	3		N
		S.W. Under the bridge (PGBT)	190 WBFR	190 EBFR W side of the tracks		16	6	Y	Y	4	N/A Parking lot	N/A	N/A	N/A	N/A	N	1 2 3 4 ?	Y	E/G
		Central Expy	PGBT	Plano Pkwy	E	0	0	Y	–	–		–	–	0	3	3	1 2 3 4	–	–
					W	0	0	Y	–	–		–	–	–	3	3	1 2 3 4	–	–
		Central Expy	PGBT	Renner	E	0	0	Y	–	–		–	–	–	3	3	1 2 3 4	–	–
					W	0	0	Y	–	–		–	–	–	3	3	1 2 3 4	–	–
		Top ridge	~~190 EBFR~~ Pipe line	City line	E	6	4	Y	P	9	30 A	9	0	0	2	?	1	Y	E/G
					W	6	4		P	9	30 A	9	0	0	2		1	Y	E/G

Parking

For Side of Street, choose:
N NE
S SE
E NW
W SW

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

LEE ENGINEERING

X = undeveloped (under const.)
** Patio seating

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchanges See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalks

Date | Station Area | Staff Name

Group Link	Link ID	Street Name	From Street	To Street	Side of Street	Sidewalk Width (ft) Actual	Eff.	Curb & Gutter?	Buffer Type	Buffer Width	Prevailing Speed or Speed Limit (mph)	On-Street Parking	Bike Lane	Shoulder	No. of Lanes*	If One-Way, Dir. of Travel	Land Use	Lighting?	Condition Selection
		City Line	Top Ridge	Tracks	N	6	4	Y	P	10	30 A	Y	0	0	4	–	1	Y	E/G
					S	0	0	Y	P	10	30 A	Y	0	0	4	–	1	N	N
		Red Moon	City Line	Renner	E	0*	0	Y	P	9	30 A	Y	0	0	2	–	X 1 2 3 4	N	0
					W	0	0	Y	P	9	30 A	Y	0	0	2	–	1 2 3 4	N	0
		"	190 EBFR	City Line	E	10	8	Y	P/L	10	30 A	Y	0	0	2	–	1	Y	E/G
					W	0	0	Y	N	N	30 A	Y	0	0	2	–	1	N	
		190 EBFR	~~[illegible]~~ Red Moon	Top Ridge	N	4	4	Y	Y	10		N	0	0	3	EB	1	Y	E/G
					S	6	6	Y	Y	6		N	0	0	3	EB	1	N	E/G
		190 EBFR	Top Ridge	Tracks	N	10	10	Y	L	10	30 A	N	0	0	3	EB	1	Y	E/G
					S	10	4*	Y	N	0	15 A**	N	0	0	3	EB	1	N	E/G
																	3	N	0
		Top Ridge	EBFR ~~WBFR~~	WBFR	E	0	0	Y	L	20	25	N	0	0	2		3	W	E/G
					W				L	20	25	N	0	0	2				
		190 EBFR	NBFR	Red Moon	N	0	0	Y	0	0		N	0	0	3	EB	3	N	N
					S	0	0	Y	0	0		N	0	0	3	EB	3	N	N
		Pipe line	Top Ridge	Routh W	N	6	6	Y										N	E/G
					S	6	6	Y	0	0	30 A	Y	0	0	2	–	1	N	E/G
									P	9	30 A	Y	0	0	2	–	1		
		Ruth Cr.	Peloton	Renner	W	0	0	Y	0	0	30 A	N	0	0	2	–	1	N	–
					S	10	6	Y	L	10	30 A	Y	0	0	2	–	1	Y	E/G
		Ruth Cr	Renner	S. Lim	W	0	0	Y	0	0	35	N	0	0	4	–	1	N	0
					E	6	6	Y	0	0	35	N	0	0	4	–	1	Y	0
		Routh Cr	Peloton	C.L.	E	0	0	Y	P	9	30 A	Y	0	0	2	–	1	Y	V.C
		Routh Cr	C.L	Hill	W	10	10	Y	L	10	30 A	N	0	0	2	–	1	Y	E/G
					E	–	–	Y	P	9	30 A	Y	0	0	2	–	1	Y	–
		Routh Cr.	Hill	W. C.L.	W	0	0	Y	–	–	30 A	N	0	0	2	–	1	Y	–
					E	6	6	Y	L	4	30 A	N	0	0	3	–	1	N	E/G
					N	6	6	Y	N	0	30 A	N	0	0	2	–	1	N	E/G
		W. Cr.	Routh	Track	S	0	0	Y	N	0	30 A	N	0	0	2	–	1	N	

LEE ENGINEERING

For Side of Street, choose:
N NE
S SE
E NW
W SW

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

X = undeveloped
* Unpaved S.W.
* Blocked by bus canopy/poles
** Bus stop

Land Use Codes:
1 = Residential, central business districts (CBD), neighborhood commercial,parks and other public facilities, governmental buildings/plazas,offices/office parks
2 = Low density development, rural subdivisions, un-incorporated communities, strip commercial, mixed employment
3 = Light industrial, big-box/auto-oriented commercial
4 = Heavy industrial, intermodal facilities, freeway interchar See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Signalized Crossings

Date 08/07/2018 Station Area Cityline Staff Name L.L. & S.S

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	No. Lanes Crossed: Total	Med. Refuge Width	Both Ped. Ramps Present?	If Signalized: Permitted: Left Turns?	Permitted: Right Turns?	Countdown Ped. Signals?	Pushbuttons: Functional?	Pushbuttons: w/ APS Signals?	>1 Refuge Island?	No. of Lanes Crossed at Once	>4 legs or high skew	Closed or limited x-walks	Channelized Right Turns	Photo(s)?	Notes
	I M	Roth E Dr	PGB Hwy	S	N	N	1	1	N	Y	N	Y	Y	Y	N	N	1	N	N	N	✓	one-way
	I M	PGB Hwy	Roth E Dr	W	N	N	3	3	N	Y	Y	Y	Y	Y	N	N	3	N	N	N	✓	one-way
	I M	Roth E Dr	PGB Hwy	N	N	N	1	1	N	Y	N	N	Y	Y	N	N	1	N	N	N	✓	
	I M	PGB(WB)																			✓	
	I M	K Ave	Plano Pkwy	W	N	N	3	6	N	Y	Y	Y	N	N/A	N	N	6	N	N	N	✓	
	I M	K Ave	Plano Pkwy	E	N	N	3	6	N	Y	Y	Y	N	N/A	N	N	6	N	N	N	✓	
	I M	Plano Pkwy	K Ave	S		N	3	6	N	Y	Y	Y	N	Y	N	N	6	N	N	N	✓	
	I M	Plano Pkwy	K Ave	N	N	N	3	6	Y	Y	Y	Y	N	N/A	N	N	6	N	N	N	✓	
	I M	PGB(WB)	K Ave	W	N		3	3	Y	Y	N/A	Y	Y	Y	N	N	3	N	N	Y	✓	
	I M	K Ave	PGB(WB)	N	N		3	6	Y	N	Y	Y	Y	Y	N	Y	3	N	N	N	✓	(one way No Ramp in the middle)
	I M	[illegible]	[illegible]	S	N		3	6	Y	Y	Y	Y	Y	Y	N	N	4	N	N	N	✓	
	I M	[illegible]	[illegible]	W	N		3	3	Y	Y	Y	Y	Y	Y	N	N	3	N	N	N	✓	
	I M	PGB(WB)	K Ave	E	N		3	3	Y	Y	Y	Y	Y	Y	N	N	3	N	N	N	✓	
	I M	Plano	State	W	N	Y	1	2	N	Y	Y	Y	Y	Y	N	N	2	N	N	N	✓	
	I M	Plano	State	E	N	Y	1	2	N	Y	Y	Y	Y	Y	N	N	2	N	N	N	✓	
	I M	State	Plano	S	N	Y	3	6	N	Y	Y	Y	Y	Y	N	N	3	N	N	N	✓	
	I M	Plano	City line	W	N	Y	2	4	N	Y	Y	Y	Y	N/A	N	N	4	N	N	N	✓	
	I M	Plano	City line	E	N	Y	2	4	N	Y	Y	Y	Y	Y	N	N	4	N	N	N	✓	
	I M	City line	Plano	N	N	Y	3	6	N	Y	Y	Y	Y	Y	N	N	6	N	N	N	✓	
	I M	City line	Plano	S	N	Y	3	6	N	Y	Y	Y	Y	Y	N	N	6	N	N	N	✓	
	I M	Plano	Renner	W	N	Y	3	6	Y	Y	Y	Y	Y	Y	N	N	6	N	N	N	✓	
	I M	Plano	Renner	E	N	Y	3	6	Y	Y	Y	Y	Y	Y	N	N	6	N	N	N	✓	No Ped button to cross WL.
	I M	Renner	Plano	N	N	Y	3	6	N	Y	Y	Y	Y	Y	N	N	6	N	N	Y	✓	
	I M	Renner	Plano	S	N	Y	3	6	N	Y	Y	Y	Y	Y	N	N	6	N	N	Y	✓	
	I M	Renner	Roth Creek	N	N	Y	1	2	4	Y	Y	Y	Y	Y	N	Y	4	N	N	N	✓	
	I M	Renner	Roth Creek	S	N	Y	1	2	4	Y	Y	Y	Y	Y	N	Y	4	N	N	N	✓	
	I M	Roth Creek	Renner Rd	E	N	Y	3	6	N	Y	Y	Y	Y	Y	N	N	6	N	N	N	✓	No marked Cw on the WL.
	I M	Roth Creek	Renner Rd	W	N	Y	3	6	N	Y	Y	Y	Y	Y	N	N	6	N	N	N	✓	
	I M	[illegible]	[illegible]	N	N	Y	3	6	N	Y												
	I M																					
	I M																					
	I M																					
	I M																					
	I M																					

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

*All lanes for 2-way street

Legend:
Complete in office, confirm in field
Confirm in field

LEE ENGINEERING

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Signalized Crossings

Date _____ Station Area _____ Staff Name _____

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If Signalized: No. Lanes Crossed: Per Direction	No. Lanes Crossed: Total	Med. Refuge Width	Both Ped. Ramps Present?	Permitted: Left Turns?	Permitted: Right Turns?	Countdown Ped. Signals?	Pushbuttons: Functional?	Pushbuttons: w/ APS Signals?	>1 Refuge Island?	No. of Lanes Crossed at Once	>4 legs or high skew	Closed or limited x-walks	Channelized Right Turns	Photo(s)?	Notes
	I M	E Plano Pkwy	K Ave	W			3	7									7					
	I M	E Plano Pkwy	K Ave	E			3	7									7					
	I M	K Ave	E Plano Pkwy	N			3	7									7					
	I M	K Ave	E Plano Pkwy	S			3	7									7					
	I M	K Ave	E President GB Hwy WB																			
	I M	E President GB Hwy WB	K Ave RR	W		Y	3	6	—	Y	N	N	Y	Y	N	N	3	N	N	N	Y	
	I M	E President GB Hwy WB	K Ave [illegible]														7					
	I M	K Ave	E President GB Hwy EB																			
	I M	E President GB Hwy EB	K Ave	W			3	7									7					
	I M	E President GB Hwy EB	K Ave	E			3	7									7					
	I M	K Ave	State St	N			3	7									7					
	I M	K Ave	State St	S			3	7									7					
	I M	State St	K Ave	W			1	3									3					
	I M	State St	K Ave	E			1	3									3					
	I M	K Ave	E City Line Dr	N			3	7									7					
	I M	K Ave	E City Line Dr	S			3	7									7					
	I M	E City Line Dr	K Ave	W			1	3									3					
	I M	E City Line Dr	K Ave	E			1	3									3					
	I M	K Ave	E Renner Rd	N			3	7														
	I M	K Ave	E Renner Rd	S			3	7														
	I M	E Renner Rd	K Ave	W			4	8														
	I M	E Renner Rd	K Ave	E			4	8														
	I M																					
	I M	190 NBFR	W of Travis	N	No	Yes	3	3	—	Yes	N	N										
	I M																					
	I M	Plano Pkwy	E Ave/Exit	E	N	N	3	7	—	N	Y	Y	N	N/A	N/A	N/A	7	N	Y	N	Y	↑
	I M			SW	N	N	3	7	—	N	Y	Y	N	N/A	N/A	N/A	7	N	Y	N	Y	No X.W.K
	I M	E Ave/Exit	P. Pkwy NB	N	N	N	1	2	—	N	Y	Y	N	N/A	N/A	N/A	7	N	Y	N	Y	
	I M			SW	N	N	1	2	—	Y	Y	Y	N	N/A	N/A	N/A	7	N	Y	N	Y	↓
	I M	City line	Top Bridge	E	N	N	2	4	—	Y	Y	Y										
	I M			W	N	N	2	4	—	Y	Y	Y										
	I M																					
	I M																					
	I M	North West	Via EBFR	S	N	N																
	I M																					
	I M	NBFR	Renner	N	—		3	3	—	Y	N	N	Y	Y	Y	—	3	—	—	N		
	I M			S	—		3	3	—	Y	Y	Y	Y	Y	Y	—	3	—	—	N		
	I M																					
	I M	Renner	NBFR	E	—		3	7	9	Y	Y	Y	Y	Y	Y	—	4	—	—	Y		
	I M																					
	I M																					
	I M																					
	I M																					

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

Buffer Types:
N = None
S = Solid Surface
L = Landscaped
T = Landscaped w/ Trees
V = Vertical (retaining wall)

* NO Ramps on N side.

*All lanes for 2-way street

Legend:
Complete in office, confirm in field
Confirm in field

LEE ENGINEERING

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Unsignalized Crossings

Date ______ Station Area ______ Staff Name ______

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	If Unsignalized with no Stop Control (i.e. Free): Speed Limit (mph)	One Way?	2-Min. Traffic Count*: Time	Volume	Treatment present (circle all)	Photo(s)?	Notes
	I M	Executive Dr	Crawford Rd	S	N	N	1	2	0	Y	30A	Y N	17	8:40	Mkg RSg RRFB InSgn Cex RCwk		No SW on W side
	[✓ I] M	Crawford Rd	E President GB Hwy WB	N	Y	Y	~~2~~ 1	2	0	N	30A	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	Y	No S.W. on W side
	[✓ I] M	E President GB Hwy WB	Crawford Rd	W	N	Y	3	3	0	N		[✓ Y] N	9	8:25	Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	E President GB Hwy WB	Crawford Rd	E								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Crawford Rd	E President GB Hwy EB	S								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	E President GB Hwy EB	Crawford Rd	W								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	E President GB Hwy EB	Crawford Rd	E								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	E Cityline Dr	Routh Creek Pkwy	W								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	E Cityline Dr	N								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	E Cityline Dr	S								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	W Cityline Dr	Routh West Dr	E								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	Hill St	N								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	Hill St	S								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Hill St	Routh Creek Pkwy	E								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	Cityline Dr	N								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	Cityline Dr	S	Y	Y	3	3	—	Y	30A	Y [✓ N]	—		Mkg RSg RRFB InSgn Cex RCwk	Y	
	I M	Cityline Dr	Routh Creek Pkwy	E	Y	Y	3	3	—	Y	30	Y [✓ N]	—		Mkg RSg RRFB InSgn Cex RCwk	Y	
	I [✓ M]	190 WBFR	W of RR	N	N	Y	3	3	—	Y		[✓ Y] N	9	8:23	Mkg RSg RRFB InSgn Cex RCwk	Y	Apt to St !!
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	[✓ I] M	P. Pkwy	Tylor	E	N	N	3	6	—	N	40	Y [✓ N]	38	10:13	Mkg RSg RRFB InSgn Cex RCwk		
	I M			W	N	N	3	6	—	N	40	Y [✓ N]	38	10:13	Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	[✓ I] M	Top ridge	Pipe line	N	N	Y	1	2	—	Y	30A	Y [✓ N]	1	1:40	Mkg RSg RRFB InSgn Cex RCwk		
	I M			S	N	Y	1	2	—	Y	30A	Y [✓ N]	1	1:40	Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Top Ridge~~	~~City Line~~	E	N	Y	2	4	—	Y	30A	Y [✓ N]	4	1:45	Mkg RSg RRFB InSgn Cex RCwk		
	I M	City Line	Top Ridge	W	N	Y	2	4	—	Y	30A	Y [✓ N]	4	1:45	Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	190 EBFR	Red moon	E	N	Y	3	3	—	N		[✓ Y] N	9	2:20	Mkg RSg RRFB InSgn Cex RCwk		
	I M			W	N	N	3	3	—	N		[✓ Y] N	9	2:20	Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	City line	Red moon	E	N	Y	2	4	—	Y	30A	Y [✓ N]	3	2:17	Mkg RSg RRFB InSgn Cex RCwk		
	I M			W	N	Y	2	4	—	Y	30 A	Y [✓ N]	3	2:17	Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	[illegible]										Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	State	Newton	E	N	Y	1	2	0	Y	30 A	Y [✓ N]	8	5:42	Mkg RSg RRFB InSgn Cex RCwk		
	I M			W	N	Y	1	2	6	Y	30A	Y [✓ N]	8	6:42	Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Unsignalized Crossings

08/07/18
~~08/16/18~~
Date ~~08/07/2018~~ Station Area ~~Arapaho~~ Cityline Staff Name L.L ~~[illegible]~~ S.S

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	If No Stop Control (i.e. if Free or Signal): No. Lanes Crossed: Per Direction	Total	Med. Refuge Width	Both Ped. Ramps Present?	If Unsignalized with no Stop Control (i.e. Free): Speed Limit (mph)	One Way?	2-Min. Traffic Count*: Time	Volume	Treatment present (circle all)	Photo(s)?	Notes
	I M	Executive Dr	Crawford Rd	S								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Crawford Rd	E President GB Hwy WB	N								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	E President GB Hwy WB	Crawford Rd	W								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	E President GB Hwy WB	Crawford Rd	E								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Crawford Rd	E President GB Hwy EB	S								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	E President GB Hwy EB	Crawford Rd	W								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	E President GB Hwy EB	Crawford Rd	E								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	E Cityline Dr	Routh Creek Pkwy	W								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	E Cityline Dr	N								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	E Cityline Dr	S								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	W Cityline Dr	Routh West Dr	E								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	Hill St	N								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	Hill St	S								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Hill St	Routh Creek Pkwy	E								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	Cityline Dr	N								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek Pkwy	Cityline Dr	S								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Cityline Dr	Routh Creek Pkwy	E								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~E Plano Pkwy~~										Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	E Plano Parkway	JPI	S	N	N	4	8	N	Y	40/35	Y [✓ N]	8:51	65	Mkg RSg RRFB InSgn Cex RCwk		lighty in the middle of WL
	I M	E Plano Pkwy	JPI	N	N	N	4	8	N	Y	40/35	Y [✓ N]	8:51	65	Mkg RSg RRFB InSgn Cex RCwk		
	I M	JPI	E Plano Pkwy	E	Y	N	1	2	N	Y	30	Y [✓ N]		~~[illegible]~~	Mkg RSg RRFB InSgn Cex RCwk		
	I M	JPI	E Plano Pkwy	W	Y	N	1	2	N	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~Plano Rd~~ Hunt	~~Hunt~~ Plano	W	N	Y	3	6	Y	N	40	Y [✓ N]	10:47	35	Mkg RSg RRFB InSgn Cex RCwk		
	I M	Plano	Hunt	N	Y	Y	1	2	N	Y	30	Y [✓ N]	~~10:47~~	~~35~~	Mkg RSg RRFB InSgn Cex RCwk		
	I M	Plano	Hunt	S	Y	Y	1	2	N	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Marathon Ave	Ranner	N	N	N	3	6	2	N	40	Y [✓ N]	11:12	75	Mkg RSg RRFB InSgn Cex RCwk		No Red crosg marked
	I M	Ranner	Marathon	E	Y	N	1	2	N	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Ranner	Marathon	W	Y	N	1	2	N	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Red Moon	Ranner	N	N	Y	3	6	2	N	40	Y [✓ N]	11:29	64	Mkg RSg RRFB InSgn Cex RCwk		
	I M	Ranner	Red Moon	W	Y	Y	1	2	N	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Ranner	Red Moon	E	Y	Y	1	2	N	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Heise Rd	Plano Rd	E	N	Y	3	6	Y	N	40	Y [✓ N]	1:57	32	Mkg RSg RRFB InSgn Cex RCwk		no light on E side
	I M	Plano Rd	Heise Rd	N	Y	N	1	2	0	Y	36	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		no side walk marking
	I M	Plano Rd	Heise Rd	S	Y	N	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	JPI	PGB (WB)	N	N	N	3	3	N	N	?	Y [✓ N]	2:30	6	Mkg RSg RRFB InSgn Cex RCwk		(missing sidewalk)
	I M	~~PGB (WB)~~	~~JPI~~									Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Red Moon	PGBT (EB)	S	N	Y	3	3	N	N	?	Y [✓ N]	2:44	4	Mkg RSg RRFB InSgn Cex RCwk		
	I M	PGBT (EB)	Red Moon	E	Y	Y	1	2	N	N	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	PGBT (EB)	Red Moon	W	Y	Y	1	2	N	N	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Wilshire	PGBT (EB)	S	N	N	3	3	N	N	?	[✓ Y] N	3:06	23	Mkg RSg RRFB InSgn Cex RCwk		
	I M	~~PGBT (EB)~~	~~Wilshire~~	~~E~~								Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	PGBT (EB)	Wilshire	W	Y	N	1	2	N	Y		Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		TWLT in the middle
	I M	~~Heise~~	Wilshire	W	N	N	1	3	N	N	30	Y [✓ N]	3:10	4	Mkg RSg RRFB InSgn Cex RCwk		No Ramp, No marked crosswalk
	I M	Wilshire	Heise	N	Y	N	1	2	N	N	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M			S								Y N			Mkg RSg RRFB InSgn Cex RCwk		

(unsignalized Crossings.)

08/~~[illegible]~~07/18. Cityline ~~[illegible]~~ Station L.L. & ~~[illegible]~~ S.S.

Link ID or "New"	Location Type (circle one)	Street Crossed	At/Between Street(s)	Int. Leg	Stop Control?	Lighting Present?	No. Lanes Crossed		Med. Refuge Width	Both Ped. Ramps Present?	Speed Limit (mph)	One Way?	2-Min. Traffic Count*		Treatment present (circle all)	Photo(s)?	Notes
							Per Direction	Total					Time	Volume			
	I M	State	Wilshire	W	N	Y	1	2	0	Y	30	Y [✓ N]	3:17	4	Mkg RSg RRFB InSgn Cex RCwk	✓	
	I M	~~Wilshire~~	~~State~~	~~N~~	~~Y~~							Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Wilshire	State	S	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk	✓	
	I M	Wilshire	Cityline	N	N	Y	2	4	0	Y	30	Y [✓ N]	3:26	6	Mkg RSg RRFB InSgn Cex RCwk		ES has ZigZag Ped cross
	I M	Hunt	Wilshire	W	N	Y	1	2	0	Y	30	Y [✓ N]	3:33	2	Mkg RSg RRFB InSgn Cex RCwk		light on the ES
	I M	Foxboro	City line	S	N	Y	2	4	0	Y	30	Y [✓ N]	3:36	5	Mkg RSg RRFB InSgn Cex RCwk		
	I M	Cityline	Foxboro	W	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Keffler St	Cityline	N	N	Y	1	3	0	Y	30	Y [✓ N]	3:50	2	Mkg RSg RRFB InSgn Cex RCwk		2-way left turn in middle
	I M	Cityline	Keffler St.	E	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Cityline Market Dr	City line	S	N	N	2	4	2	N	30	Y [✓ N]	4:11	6	Mkg RSg RRFB InSgn Cex RCwk		No RamP on N
	I M	Peloton Dr.	Plano Rd	W	N	Y	3	6	4	N	40	Y [✓ N]	4:18	56	Mkg RSg RRFB InSgn Cex RCwk		No Ramp on E.
	I M	Plano Rd.	Peloton	N	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Peloton	Routh Creek	E	N	Y	1	2	0	Y	30	Y [✓ N]	4:28	6	Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek	Peloton	S	Y	Y	1	2	0	N	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		No Ramp on WS.
	I M	Hill St	Routh Creek	E	N	Y	1	3	0	Y	30	Y [✓ N]	4:54	4	Mkg RSg RRFB InSgn Cex RCwk		
	I M	Routh Creek	Hill St	S	Y	Y	1	2	0	Y	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		
	I M	Keffler St	Hill St	S	N	Y	1	2	0	N	30	Y [✓ N]	4:58	2	Mkg RSg RRFB InSgn Cex RCwk		No Ramps on WS
	I M	Heise St	Wilshire	W	N	N	1	3	0	N	30	Y [✓ N]	5:30	7	Mkg RSg RRFB InSgn Cex RCwk		No Cross marking
	I M	Wilshire	Heise	N	Y	N	1	2	0	N	30	Y [✓ N]			Mkg RSg RRFB InSgn Cex RCwk		No light
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		
	I M											Y N			Mkg RSg RRFB InSgn Cex RCwk		

Choose:
I = Intersection
M = Mid-Block

For Int. Leg, choose:
N NE
S SE
E NW
W SW
(N/A for mid-block)

* if ADT is not avail.

Condition Options:
Mkg = Markings
Rsg = Roadside signage
RRFB = Rapid Flash Rect. Beacon
InSgn = In-street signs
Cex = Curb extensions
RCwk = Raised crosswalk

Legend:
☐ Complete in office, confirm in field
☐ Confirm in field

See http://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf (Sect. 14.5) for more details.
Consider adding items from Page 9 of https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/guide_to_improve_uncontrolled_crossings.pdf

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DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station Cityline
Staff Name L.L & S.S
Location E Plano Pkwy JPI to

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? maybe

Trees? Yes

Slopes? 0%.

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:
northside of street

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station Cityline
Staff Name L.C & S.S.
Location E. Plano Pkwy
811-Inwo to F Ave

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? maybe

Trees? No

Slopes? 0-1.

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station Cityline
Staff Name L.C & S.S.
Location E. Plano Pkwy
Railroad to JPJ

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? maybe

Trees? maybe/yes

Slopes? 2-1.

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L & S.S.
Location Plano Rd
City line to ~~Renner~~ Peloton (west) WB

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? maybe

Trees? No

Slopes? No

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L. & S.S.
Location Plano Rd
Renner to S. bound. WB (west)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? maybe

Trees? yes

Slopes? NO

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:
construction

LEE ENGINEERING

08/07/18
Cityline
LL. &SS.

Plano Rd/K Ave
ties to ~~Main~~ least)
unite Tools dw

yes ~~No~~
maybe
NO
NO
NO
NO
NO
✓

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 8/7/18
Station City Line/Bush
Staff Name HB/CF
Location Plano Pkwy: R.R. to F Ave

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? Fiber/water

Trees? No (out side 4-5')

Slopes? N

Other structures? ~~No~~ Fire Hydrant

Rail crossings? N

Business parking/access management issues? N

Insufficient bridge width? N

Take photos and notes to document.

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 8/7/18
Station
Staff Name Curtis
Location Plano Pkwy : Taylor to F Ave
North side

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles?

Underground utilities? telephone cable

Trees?

Slopes?

Other structures?

Rail crossings?

Business parking/access management issues? Dwy across from Fry's

Insufficient bridge width?

Take photos and notes to document.

Other Notes:

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station Cityline
Staff Name L.L. & S.S.
Location E Plano Pkwy
QT / to drainage
~~South~~side
south

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? NO

Underground utilities? maybe

Trees? NO

Slopes? 0 %

Other structures? NO

Rail crossings? NO

Business parking/access management issues? NO

Insufficient bridge width? NO

Take photos and notes to document. ✓

Other Notes:
Southside

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station Cityline
Staff Name L.L & S.S
Location E Plano Pkwy
E bound to K Ave

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? maybe

Trees? No

Slopes? No

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:
- uncovered utility
- open drainage pipe

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station Cityline
Staff Name L.L & S.S
Location PGB Hwy (WB)
Between Routh West Dr. to JPI

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? Maybe

Trees? No.

Slopes? 2% ?

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L. & S.S.
Location PBG US 75 to Red Moon (south)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No
Underground utilities? Maybe
Trees? No
Slopes? No
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:
- brand new sw from Red Moon to

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L. & S.S.
Location PBG, Plano/K Ave to E. bound. (south; north)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No
Underground utilities? No
Trees? No
Slopes? No
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station Cityline
Staff Name L.L&S.S
Location JPI - PnB to

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? maybe

Trees? No

Slopes? 0%

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station Cityline
Staff Name L.L&S.S
Location JPI - shop to open lot east side of street

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? maybe

Trees? No

Slopes? 0%

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? No

Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L. & S.S
Location JPI – Plano Pkwy to N boundary

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No
Underground utilities? maybe
Trees? No
Slopes? 0 /.
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:
- construction
- No Parking ~~Any~~ Time

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L. & S.S
Location Wilshire PBC to Hess

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No
Underground utilities? No
Trees? No
Slopes? No
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:
east & west sides

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L & S.S
Location Wilshire Hersh to City line (east)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? yes
Underground utilities? maybe
Trees? No
Slopes? No
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L. & S.S.
Location [redacted] Peleton garage dw Plano to [redacted] (north)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No
Underground utilities? [redacted] maybe
Trees? No
Slopes? No
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:
- const.

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L & S.S.
Location ~~E Plano~~ K Ave E Plano to Prime Time Ins. ~~WB~~ (west)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No
Underground utilities? maybe
Trees? No
Slopes? No
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:
- fire hyd

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.L. & S.S.
Location K Ave, Prime Time Ins to Bond ~~WB~~ (west)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No
Underground utilities? maybe
Trees? No
Slopes? No
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.C. & S.S.
Location K Ave, Bound WOK to PGB ~~WB~~ (west)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No
Underground utilities? ~~No~~ maybe
Trees? No
Slopes? No
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 08/07/18
Station City line
Staff Name L.C. & S.S.
Location US 75 central Renner to S. bound (east)

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No
Underground utilities? maybe
Trees? No
Slopes? No
Other structures? No
Rail crossings? No
Business parking/access management issues? No
Insufficient bridge width? No
Take photos and notes to document. ✓

Other Notes:

08/07/18
Cityline
L.L & S.S.

Renner Rd
Routh Creek to standard City Line
(South)

yes

maybe

yes

NO

NO

NO

✓

- construction
- brand new sw

08/07/18
Cityline
LL&SS

City Line
Keffler to Routh Creek
~~Cross~~ north, south

yes

maybe

NO

NO

NO

NO

✓

- Const. on south side
- brand new sw from Keffler to City Apt. entrance

08/07/18
Cityline
LL & SS

Appleton
Marathon to Mouth Creek (north)

yes (lighting)

maybe

NO

No

No

No

No

- construction

08/07/18
Cityline
LL & SS

Keffler
third to City Place (west)

NO

maybe

NO

NO

No

No

No

- dog park

08/07/18
City line
LL & SS

Hess, Wilshire to Plano Rd

NO

maybe

yes

NO

No

NO

No

✓

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 8/7/18
Station ~~08~~ C.L. /B
Staff Name MB/CF
Location E bdry Tyler to P.P. E and W sides.

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? May be (Fiber)

Trees? No (back 6-8')

Slopes? No

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? N/A

Take photos and notes to document.

Other Notes:

may need to relocate signs and UPS mail box.
E side: High slope bet'n Tyler and N. Drive of building 80.
E side: Trees and slope. bet'n Tyler and S. Drive of building 720.

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 8/7/18
Station C.L. / B.
Staff Name HB/CF
Location E side of F Ave/ N. Boundary to Tylor.

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? Yes Fiber.

Trees? Yes.

Slopes? Yes.

Other structures? Signs. Fire Hydrants.

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? N/A

Take photos and notes to document.

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 8/7/18
Station C.L. / B
Staff Name HB/CF
Location E side of Tylor bet. F Ave to Plano Pkwy.

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No

Underground utilities? may be.

Trees? Yes.

Slopes? No

Other structures? No

Rail crossings? No

Business parking/access management issues? No

Insufficient bridge width? N/A

Take photos and notes to document.

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 8/7/18
Station C.L. / B
Staff Name HB / CF
Location S. side Plano Pkwy bet⁷ W. Limn to Tyo8

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? N

Underground utilities? Yes. Fiber sprinklers

Trees? Some

Slopes? N

Other structures? signs

Rail crossings? NO

Business parking/access management issues? No

Insufficient bridge width? N/A

Take photos and notes to document.

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 8/7/18
Station C.L / B
Staff Name HB / CF
Location Central NBFR / ~~SB~~FR ~~PG~~ PGBT to Plano Pkwy

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

Utility poles? No NBFR | No SBFR.

Underground utilities? Fiber | Fiber

Trees? No

Slopes? at north side of Lot 66G (NCX) | Longitudinal slopes bet⁷ trucks and RR. Yes.

Other structures? sign ~~pole~~ pole retaining wall

Rail crossings? No

Business parking/access management issues? No | No

Insufficient bridge width? N/A | N/A.

Take photos and notes to document.

Other Notes: Need move retaining wall back at N. side of building 660 (NCX)

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date
Station
Staff Name
Location ⊕ central Expy PGBT to ~~Remote~~ creek.

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

	NBFR	EBFR
Utility poles?		outside 10'
Underground utilities?	may be	yes Fiber, Petroleum
Trees?	No	No
Slopes?	No	some
Other structures?	signs	signs
Rail crossings?	No	
Business parking/access management issues?	No	No
Insufficient bridge width?	at creek	at creek.

Take photos and notes to document.

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 8/7/18
Station C.L/B
Staff Name HB/CF
Location PGBT betn Crowley and central

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

	N side	S. side.
Utility poles?	No	
Underground utilities?	may be.	
Trees?	No	
Slopes?	No	
Other structures?	signs	
Rail crossings?	No	
Business parking/access management issues?	No	
Insufficient bridge width?	NO	

Take photos and notes to document.

Other Notes:

LEE ENGINEERING

DART Red & Blue Line Last Mile Connections Project
Field Data Checklist - Sidewalk Gaps

Date 8/7/18
Station CL / R
Staff Name ITB / CF
Location 190 EB FR NBFR to Red Moon

Instructions : When coding/confirming sidewalk condition of "Nonexistant" on sidewalk checklist, review the following and make notes here and/or on the sidewalk checklist.

What challenges are there to the feasibility/practicability of sidewalk?
Circle items below and add notes/sketches as applicable.

	N-side	S-side
Utility poles?	No	No
Underground utilities?	May be	May be.
Trees?	No	No
Slopes?	No	~~No~~ Yes
Other structures?	NO	NO
Rail crossings?	No	No
Business parking/access management issues?	No	No
Insufficient bridge width?	N/A	N/A

Take photos and notes to document.

Other Notes:

St. Name	Red Moon city limit & Renner	Ruth Cr Peloton to S. Limit W-side	R. Cr. Peloton to Hill E-side	Ruth Cr Hill to W.C.L. W-side
U. Pole	No	No	No	Yes
U. Utility	May be	No	May be	May be
Trees	No	No	No	No
Slopes	No	No	No	No
Other struc.	No	No	No	No
R.R. X	No	No	No	No
Parking Acc. Mngt	No	No	No	No
Photos	Yes	Yes	Yes.	Yes
Notes	Unpaved S.W. on E side.	Not enough width on bridge	Either under constn or feasible.	

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APPENDIX C: Crosswalk Improvement Evaluation Details

At existing or proposed crosswalks without existing stop sign or signal control, potential improvements were evaluated based on guidance in the Federal Highway Administration's (FHWA) recent publication, "Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations", dated July 2018. Table 1 of this publication, reproduced herein also as Table C1, includes enhanced guidance on countermeasures that can or should be considered for uncontrolled crosswalks with various combinations of vehicular speed, traffic flow, and number of lanes to be crossed. This appendix describes how the consultant team used Table C1 to produce consistent recommendations for crosswalk improvements, as well as how roadway speed and daily traffic volume data required as inputs to the process were estimated where otherwise unavailable.

In the reproduction of Table 1, red boxes have been added to highlight an example crosswalk to illustrate how the table was used for each evaluation. In the example, four-lane undivided roadways with average annual daily traffic (AADT) over 15,000 vehicles/day and speeds greater than 40 miles per hour have up to six potential countermeasures recommended for possible consideration, as indicated by the six one-digit numbers in the lower right cell of the table. The strongest recommendations are indicated by white numbers in solid black circles. The number "1" inside an outlined circle denotes that marked and signed crosswalks should always occur in conjunction with other listed countermeasures. Numbers without circles around them indicate other improvements which may optionally be considered.

In the example, the number "1" in the lower right cell of the table indicates that high visibility crosswalk markings, parking restrictions on the crosswalk approach, adequate lighting levels, and crossing warning signs should all be employed to create a high visibility crosswalk wherever significant pedestrians demand exists or may be anticipated. But the outlined circle around the number "1" in the table indicates that implementation of these countermeasures alone is insufficent due to the high traffic volumes, high speeds, and large number of lanes to be crossed. One or more of the other options should always therefore be implemented.

The other options to be given strong consideration (based on the white number in the dark circle legend) include "Advance Yield Here for Pedestrian" signs (#3), a median pedestrian refuge island (#6), or a pedestrian hybrid beacon (#9). Other candidate countermeasures that may also be considered include curb extensions (#5) and a road diet (#8).

Note that the unavailable options for these circumstances include a raised crosswalk (#2), in-street pedestrian crossing signs (#4), and rectangular rapid-flashing beacons (RRFB's/#7). Where options such as the RRFB are listed as incompatible with context, research had demonstrated that the combination of speed, volume, or crossing distance would render the treatments less than acceptably effective. The footnotes indicate that some options are mutually exclusive of others.

A Microsoft Excel spreadsheet was created to automate Table 1 as a lookup table and quickly produce the list potentially recommended improvements given the inputs entered for each candidate crosswalk improvement location to be considered for the project. The analyst in each case still used engineering judgment to select which countermeasure options would ultimately be recommended, as indicated by the red boxes around items #1, #3 and #9 (but not #6) in the bottom right corner of the table. Notes as to the rationale for each improvement were made. The inputs, options, recommendations, and notes are tabulated in tables found in Appendix D.

The inputs to the spreadsheet analysis of crosswalk improvements were straightforward for the number of lanes in each case. Posted speed limit was also generally straightforward, though in a few cases with low posted speed limits and high number of lanes (for example, six-lane divided

Table C1: Application of Pedestrian Crash Countermeasures by Roadway Feature

Roadway Configuration	Posted Speed Limit and AADT								
	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
2 lanes (1 lane in each direction)	❶ 2 4 5 6	❶ 5 6 7 9	① 5 6 ❼ ❾	❶ 4 5 6	❶ 5 6 7 9	① 5 6 ❼ ❾	❶ 4 5 6 7 9	① 5 6 7 9	① 5 6 ❾
3 lanes with raised median (1 lane in each direction)	❶ 2 3 4 5	❶ ❸ 5 7 9	① ❸ 5 ❼ ❾	① 3 4 5 7 9	① ❸ 5 ❼ ❾	① ❸ 5 ❼ ❾	① ❸ 4 5 7 9	① ❸ 5 ❼ ❾	① ❸ 5 ❾
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	❶ 2 3 4 5 6 7 9	❶ ❸ 5 6 7 9	① ❸ 5 6 ❾	① 3 4 5 6 7 9	① ❸ 5 6 ❼ ❾	① ❸ 5 6 ❾	① ❸ 4 5 6 7 9	① ❸ 5 6 ❾	① ❸ 5 6 ❾
4+ lanes with raised median (2 or more lanes in each direction)	❶ ❸ 5 7 8 9	❶ ❸ 5 7 8 9	① ❸ 5 8 ❾	① ❸ 5 7 8 9	① ❸ 5 ❼ 8 ❾	① ❸ 5 8 ❾	① ❸ 5 ❼ 8 ❾	① ❸ 5 8 ❾	① ❸ 5 8 ❾
4+ lanes w/o raised median (2 or more lanes in each direction)	❶ ❸ 5 6 7 8 9	❶ ❸ 5 ❻ 7 8 9	① ❸ 5 ❻ 8 ❾	① ❸ 5 ❻ 7 8 9	① ❸ 5 ❻ ❼ 8 ❾	① ❸ 5 ❻ 8 ❾	① ❸ 5 ❻ ❼ 8 ❾	① ❸ 5 ❻ 8 ❾	① ❸ 5 ❻ 8 ❾

Given the set of conditions in a cell,

- # Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
- ● Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
- ○ Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.*

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgment.

1 High-visibility crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting levels, and crossing warning signs
2 Raised crosswalk
3 Advance Yield Here To (Stop Here For) Pedestrians sign and yield (stop) line
4 In-Street Pedestrian Crossing sign
5 Curb extension
6 Pedestrian refuge island
7 Rectangular Rapid-Flashing Beacon (RRFB)**
8 Road Diet
9 Pedestrian Hybrid Beacon (PHB)**

*Refer to Chapter 4, 'Using Table 1 and Table 2 to Select Countermeasures,' for more information about using multiple countermeasures.

**It should be noted that the PHB and RRFB are not both installed at the same crossing location.

This table was developed using information from: Zegeer, C.V., J.R. Stewart, H.H. Huang, P.A. Lagerwey, J. Feaganes, and B.J. Campbell. (2005). Safety effects of marked versus unmarked crosswalks at uncontrolled locations: Final report and recommended guidelines. FHWA, No. FHWA-HRT-04-100, Washington, D.C.; FHWA. Manual on Uniform Traffic Control Devices, 2009 Edition, (revised 2012). Chapter 4F, Pedestrian Hybrid Beacons. FHWA, Washington, D.C.; FHWA. Crash Modification Factors (CMF) Clearinghouse. http://www.cmfclearinghouse.org/; FHWA. Pedestrian Safety Guide and Countermeasure Selection System (PEDSAFE). http://www.pedbikesafe.org/PEDSAFE/; Zegeer, C., R. Srinivasan, B. Lan, D. Carter, S. Smith, C. Sundstrom, N.J. Thirsk, J. Zegeer, C. Lyon, E. Ferguson, and R. Van Houten. (2017). NCHRP Report 841: Development of Crash Modification Factors for Uncontrolled Pedestrian Crossing Treatments. Transportation Research Board, Washington, D.C.; Thomas, Thirsk, and Zegeer. (2016). NCHRP Synthesis 498: Application of Pedestrian Crossing Treatments for Streets and Highways. Transportation Research Board, Washington, D.C.; and personal interviews with selected pedestrian safety practitioners.

roadways with posted speed limits of 35 mph) a higher prevailing speed was assumed based on engineering judgment and substituted for the posted speed limit.

In many cases, recent AADT volumes for the subject roadways for the crosswalks being evaluated were available from City or TxDOT data. Historic AADT volumes were grown at 2% annually to 2019 and used directly as inputs for the crosswalk countermeasure selection analysis.

In other cases where AADT data was not already available, particularly on collector streets, a "short-cut" method for estimating AADT without collecting new 24-hour traffic counts was developed to balance accuracy with the large amount of data to be collected and the lack of precision necessary to select the appropriate sets of columns in Table C1.

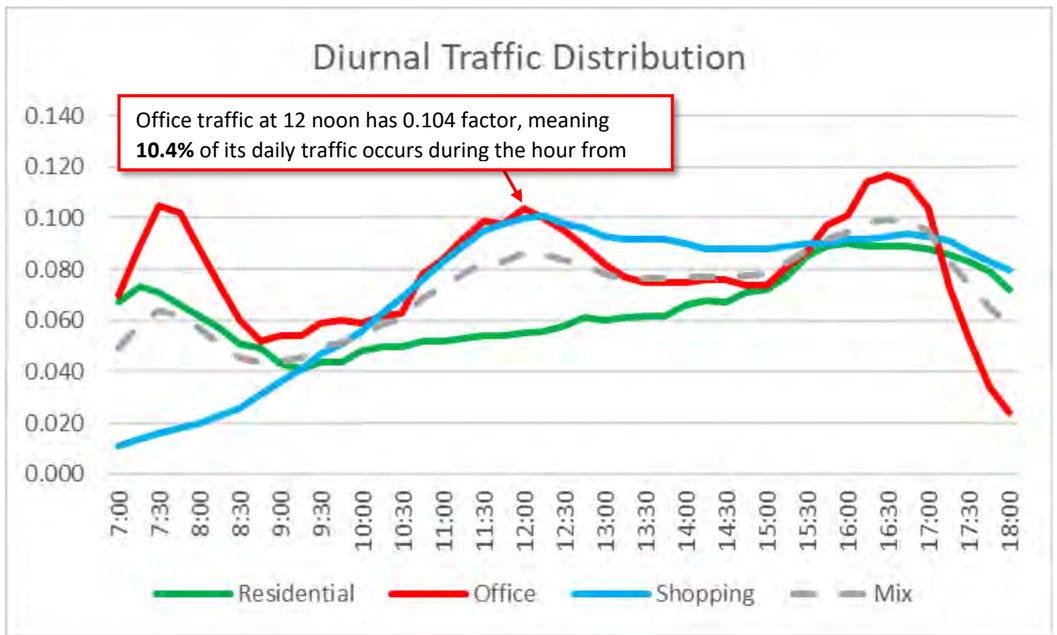
Short two-minute traffic counts were collected by consultant staff in the field at crosswalks that had been pre-selected as candidates for improvements. A two-minute time period was selected to account for the cycle length of most signalized intersections that might be nearby and therefore affect the distribution of traffic volumes. The count could be taken anytime during daylight hours to maximize field work efficiency for multiple locations.

These two-minute volumes were factored by the Excel spreadsheet program to represent approximate AADTs. The two-minute volumes are expanded to hourly volumes by multiplying by 30. The hourly volumes are then expanded to daily volumes using a lookup table based on the 15-minute period during the day that the two-minute count was taken, the adjacent land use category noted by data collection staff, and factors that were derived from data in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 10th Edition for the percentage of traffic generated by different land uses at different times of day.

For each crosswalk, the analysis characterized the land use contributing to traffic at a particular crosswalk as residential, office, shopping center, or a mix of the three. Figure C1 identifies the hourly-to-daily converstion factors derived for each land use by time of day. The "mix" category was computed by averaging the values from the other three land uses.

Note that office traffic has the most distinct "peaks" with the largest percentage of its traffic occuring near morning arrival, lunch hour, and afternoon departure times. Residential traffic peaks in the morning and afternoon without the distinct lunch peak, while generally increasing in the afternoon. Shopping center traffic is very low in the morning, with higher levels in the afternoon and evening.

Figure C1: Hourly to Daily Traffic Conversion Factors, by Land Use & Time of Day



To convert from hourly to daily traffic, the hourly total was divided by the selected conversion factor to get a daily traffic estimate. For example, a two-minute count of 40 vehicles taken at noon across an uncontrolled crosswalk near a large office building would first be converted to an hourly volumes of 1,200 vehicles/hour (=40 x 30). Then, the hourly volume would be converted to a daily volume by dividing 1,200 vehicles/hour by the 0.104 factor selected from Figure 7 to yield ~11,540 vehicles/day.

Note that daily traffic volume estimates derived in this way are not assumed to be accurate enough for most traffic analysis purposes, but were assumed to be valid for planning-level purposes such as selection of the appropriate columns in Table C1.

In cases where road diets were recommended, the consultant team compared the City/TxDOT AADT or estimated daily volume and the proposed number of lanes for the roadway with the maximum service volumes assumed per lane in NCTCOG's Dallas-Fort Worth Regional Travel Model, shown in Table C2. Road diets were only recommended if roadways would likely still have excess capacity after the lane reductions.

Table C2: NCTCOG Roadway Capacity for Divided or One-way Roads

Area Type	Functional Class						
	Freeway	Principal Arterial	Minor Arterial	Collector	Ramp	Frontage Road	HOV
	Hourly Service Volume Per Lane						
CBD	2,050	725	725	475	1,250	725	2,050
Fringe	2,125	775	775	500	1,375	775	2,125
Urban Residential	2,150	850	825	525	1,425	850	2,150
Suburban Residential	2,225	925	900	575	1,600	900	2,225
Rural	2,300	1,025	975	600	1,725	975	2,300

APPENDIX D: Crosswalk Improvement Selection Tables

DART Last Mile Connections Project - Unsignalized Crosswalk Evaluations - City of Plano - July 2020

Unsignalized Crosswalk Improvement Legend

1	Crosswalk Signs, Markings & Lighting	5	Curb Extension
2	Raised Crosswalk	6	Ped. Refuge Island
3	Advance "Yield Here" Sign	7	RRFB
4	In-Street Pedestrian Crossing	8	Road Diet
		9	Ped. Hybrid Beacon

Signalized Crosswalk Improvement Legend

10	Add Marked Crosswalks & Provide Countdown, Accessible Pedestrian Signals
11	Traffic Signal

Legend: Strength of Consideration to be Given to Improvement

#	Signifies that the countermeasure is a candidate treatment at a marked uncontrolled crossing location.
#	Signifies that the countermeasure should always be considered, but not mandated or required, based upon engineering judgment at a marked uncontrolled crossing location.
#	Signifies that crosswalk visibility enhancements should always occur in conjunction with other identified countermeasures.

Station ID	Station Name	Street Crossed	At/Between	Posted Speed of Street Crossed	Number of Lanes Crossed	Median Present?[1]	AADT from Count Map	AADT Street Name	Source	Land Use (legend below)[2]	2-Min. Traffic Count[2]		Hourly Traffic Estimate	AADT Estimate	Assumed AADT	Improvements (See Legends Above)									Notes
											Time	Volume				Options								Recommended	
1A	Parker Road	K Ave	S of Dobie	40	6	N	31,200	K Ave	City Map Plano 2017 TV	-	11:00	66	1,980	-	31,200	1		**3**		5	**6**		8	**9**	1, 9	Add crosswalk signs, markings, lighting, and pedestrian hybrid beacon for the future Regional Veloweb crossing of K Ave. The need for this improvement is contingent on construction of the Regional Veloweb crossing at this location.
1A	Parker Road	Parker Rd	E of Archerwood	40	6	Y	25,900	Parker Rd	City Map Plano 2017 TV	-	13:20	40	1,200	-	25,900	1		**3**		5			8	**9**	1, 9	Add crosswalk signs, markings, lighting, and pedestrian hybrid beacon for the future Regional Veloweb crossing of Parker Road. The need for this improvement is contingent on construction of the Regional Veloweb crossing at this location.
1A	Parker Road	Park Blvd	E of Archerwood	40	6	Y	23,100	Park Blvd	City Map Plano 2017 TV	-	14:15	41	1,230	-	23,100	1		**3**		5			8	**9**	1, 11	Full signal selected in lieu of ped. hybrid beacon due to adjacency to railroad crossing gates and potential confusion with alternative meanings of flashing red lights.
1B	Downtown Plano	18th St	I Ave/DART Tracks	30	4	N				M	10:55	21	630	9,200	9,200	1		**3**		5	**6**	7	8	9	1, 6, 8	Road diet recently implemented 2 blocks to west
1B	Downtown Plano	Municipal Ave	L Ave	30	3	N	16,600	Municipal Ave	City Map Plano 2017 TV	-	-	-	-	-	16,600	1		**3**	4	5	6	7		9	1, 3, 7	Advance and overhead ped. Flashing lights already in place; Table 1 does not account for multilane one-way streets
1B	Downtown Plano	15th St	I Ave	30	4	N	18,300	15th St	City Map Plano 2017 TV	-	-	-	-	-	18,300	1		**3**		5	**6**	**7**	8	**9**	1, 3, 6, 7, 8	1 lane WB with median island present 1 block to east, so road diet can be done here. RRFB would be good here at transition from 4 to 2 lane section. Adv. "yield here" signs for EB direction only (2 lanes).
1B	Downtown Plano	15th St	W of DART Tracks	30	3	Y	18,300	15th St	City Map Plano 2017 TV	-	-	-	-	-	18,300	1		**3**	4	5		7		9	1, 3	X-walk & ramps needed through ex. ped refuge island. Adv. "yield here" signs for EB direction only (2 lanes).
1B	Downtown Plano	15th St	W of K Ave	30	2	N	18,300	15th St	City Map Plano 2017 TV	-	-	-	-	-	18,300	**1**			4	5	6	7		9	1	Needs ramps also
1B	Downtown Plano	K Ave	16th St	30	2	N	18,300	15th St	City Map Plano 2017 TV	M	17:46	52	1,560	23,900	23,900	1			4	5	6	7		9	3	Table 1 does not account for multilane one-way streets
1B	Downtown Plano	K Ave	15th Place	30	2	N	20,300	K Ave	City Map Plano 2017 TV	M	17:46	52	1,560	23,900	23,900	**1**			4	5	6	7		9	3	Table 1 does not account for multilane one-way streets
1B	Downtown Plano	K Ave	S of 15th St	30	2	N	20,300	K Ave	City Map Plano 2017 TV	M	17:46	52	1,560	23,900	23,900	**1**			4	5	6	7		9	3	Table 1 does not account for multilane one-way streets
1B	Downtown Plano	14th St	I Ave	30	4	N	19,800	14th St	City Map Plano 2017 TV	M	15:10	36	1,080	13,900	19,800	1		**3**		5	**6**	**7**	8	**9**	1, 3, 9	Install crosswalk signing, markings, and lighting with pedestrian hybrid beacon.
1B	Downtown Plano	14th St	W of DART Tracks	30	4	N	19,800	14th St	City Map Plano 2017 TV	M	15:10	36	1,080	13,900	19,800	1		**3**		5	**6**	**7**	8	**9**	1, 11	Full signal selected in lieu of ped. Hybrid beacon due to adjacency to railroad crossing gates and potential confusion
1B	Downtown Plano	14th St	J Ave	30	4	N	19,800	14th St	City Map Plano 2017 TV	M	15:10	36	1,080	13,900	19,800	1		**3**		5	**6**	**7**	8	**9**	1, 11	
1B	Downtown Plano	K Ave	SE-SW Veloweb	30	3	N	20,300	K Ave	City Map Plano 2017 TV	M	-	-	-	-	20,300	1		**3**	4	5	6	7		9	1, 11	Speeds unlikely to be as low as 30 on 3-lane, one-way st, so PHB considered, but adjacency to rail crossing dictates traffic signal instead.
1B	Downtown Plano	Municipal Ave	SE-SW Veloweb	30	3	N	15,700	Municipal Ave	City Map Plano 2017 TV	M	-	-	-	-	15,700	1		**3**	4	5	6	7		9	1, 11	Speeds unlikely to be as low as 30 on 3-lane, one-way st, so PHB considered, but adjacency to rail crossing dictates traffic signal instead.
1C	CityLine/Bush	Pres. George Bush Turnpike	U.S. 75 and K Ave.	40	6	Y	30,900	Pres. George Bush Turnpike	City Map Plano 2017 TV	M	-	-	-	-	30,900	1		**3**		5			8	**9**	1, 3, 9	Provide pedestrian hybrid beacon with advance "Yield Here to Pedestrians" signing for crossing PGBT westbound frontage road.
1C	CityLine/Bush	Executive Dr	Crawford Rd	30	4	N	2,400		TxDOT 2015 Sat. Counts	M	8:40	17	510	11,200	11,200	1		**3**		5	**6**	7	8	9	1, 3, 6, 8	Only 1 lane can turn right in either direction at U.S. 75, so two lanes each way not striped or needed.

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

[1] with sufficient 6' width for ped. refuge?

[2] if AADT Estimate is not available.

Land Use Code Legend

R	Residential	S	Shopping
O	Office	M	Mix

Based on FHWA's "Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations", July 2018, Table 1: Application of pedestrian crash countermeasures by roadway feature

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APPENDIX E: Half-Mile Area Improvement Prioritization – Initial Trial Methodology Details

To provide opportunities for the greatest number of additional people to walk or bike to DART stations by building sidewalk, shared use path, and crosswalk connections, the prioritization of identified improvements was structured to provide balance between estimating this objective accurately and applying the methodology to a large study area.

Initially, a prioritization scheme that attempted to track as closely as possible to potential ridership increases was tested for the Parker Road Station in Plano, with adjustments for safety, key destination access, and equity. Though some of the elements of this initial prioritization methodology were ultimately discarded for this study, they are documented here as being potentially useful for later studies on a smaller scale. Also, many of the assumptions and methodologies explained below were retained in the ultimate methodology.

For the ridership component of the initial methodology, the likelihood of land parcels around each station to contribute potential transit customers walking or biking to the station was assumed to be related to three primary factors:

1. The distance of the parcel from the station,
2. The number of people living or employed at the parcel, and
3. People's tolerance for different levels of stress experienced along the route between the parcel and the station.

For the first input to ridership, distance, NCTCOG had previously collected appraisal district parcel data from Collin and Dallas Counties and provided a GIS shapefile containing the data. Consultants used ArcGIS Network Analyst tools to calculate the distance of each parcel to the station along the nearest available walking route, which was created by editing sidewalk shapefiles provided by NCTCOG to ensure end-to-end connectivity. The NCTCOG sidewalk files were found to require significant numbers of edits in this regard.

For the second component of ridership, population density, NCTCOG had included in the parcel-level data assumed population and employment values for individual parcels in the study area that had been calculated as part of a previous project. These values had been calculated by land use based on building square footage and assumed densities (for example 300 square feet/person for office land use).

Consultants used GIS tools to tabulate the total number of people who might use each sidewalk and crosswalk segment for first and last mile trips based on the parcel population totals and the shortest distance routes along available sidewalks and crosswalks between each parcel and the station. This collection of routes was designated as the "pedestrian tree" for the station. Figure E1 shows an example pedestrian tree for Parker Road Station, with one "branch" of the tree to a 662-resident apartment complex highlighted in purple that could be shortened by constructing new sidewalk along a path worn in the grass by pedestrians who already take the shortcut.

This technique allowed modeling of how individual travelers would collectively contribute greater ridership increases along pedestrian routes with the highest density of population and employment.

Figure E1: Concept of Pedestrian Trees Illustrated

For the third assumed input to ridership, pedestrian stress could be due to uncomfortable circumstances such as high traffic speeds along the route, narrow sidewalks in close proximity to traffic, or multi-lane crossings of busy streets. This concept of "Pedestrian Level of Traffic Stress" (PLTS), was adapted for pedestrians by the Oregon Department of Transportation[1] from a similar method developed for bicyclists in 2012 by researchers from San Jose State University and the Northeastern University College of Engineering[2].

The PLTS method assigns scores to sidewalk and crosswalk segments for their levels of pedestrian stress, with scores ranging from 1 for low stress to 4 for high stress conditions. Details on the PLTS model methodology are available at the sources indicated in the footnotes.

Consultants used inputs from the field data collection in the half-mile area around Parker Road Station to create a spreadsheet program for calculating PLTS scores based on a series of look-up tables defined in ODOT's methodology, with some adaptations for local Dallas-area conditions. They then joined these scores to sidewalk shapefiles in an ArcGIS model. An example map produced from this model is shown in Figure E2, highlighting in red the higher stress PLTS 4 conditions present along higher speed arterials near Parker Road Station. Potential riders unwilling to walk along higher stress PLTS 3 or PLTS 4 sidewalks in orange and red would only have access between the Parker Road Station, its adjacent parking lots, and some commercial properties to the west, but not to any residential areas in the vicinity.

The PLTS results were then used to refine the earlier estimates of how many residents and employees might use each sidewalk and crosswalk segment for their first and last mile trips. Generalized assumptions were developed for the percentage of transit riders with trip ends within a half-mile of

[1] See Oregon Department of Transportation, "Analysis Procedures Manual, Version 2," November 2018, pages 14-28 to 14-51. Accessed at: https://www.oregon.gov/ODOT/Planning/Documents/APMv2_Ch14.pdf

[2] See Mekuria, Furth & Nixon, "Low-Stress Bicycling and Network Connectivity," May 2012. Accessed at: https://transweb.sjsu.edu/research/low-stress-bicycling-and-network-connectivity

Figure E2: Existing PLTS Ratings for Portion of Parker Rd Station Area

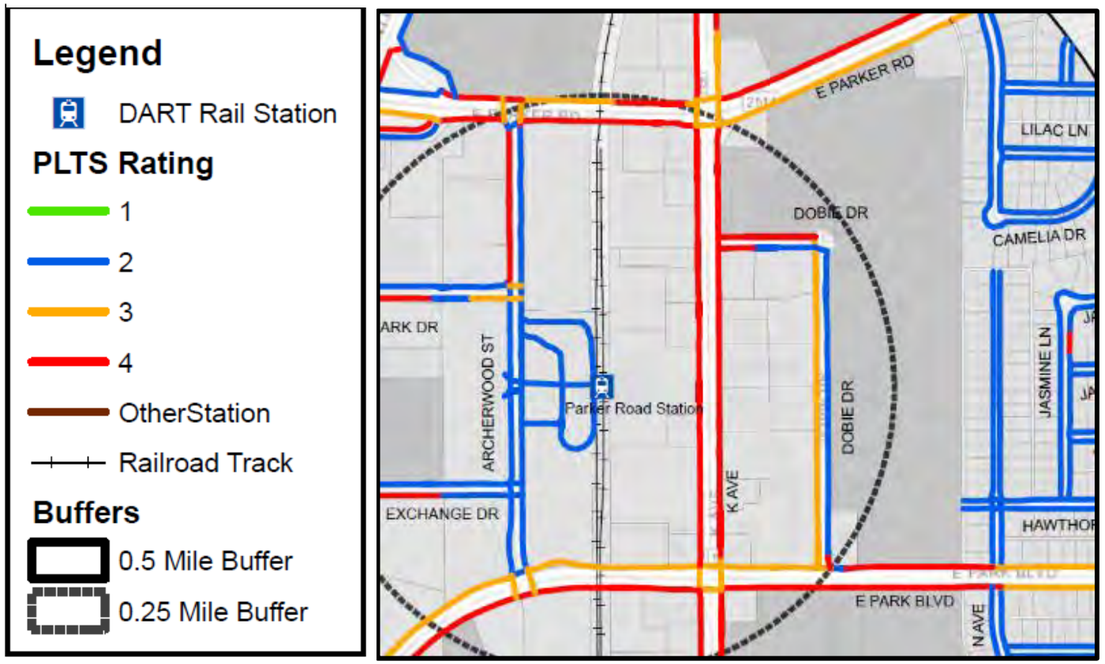
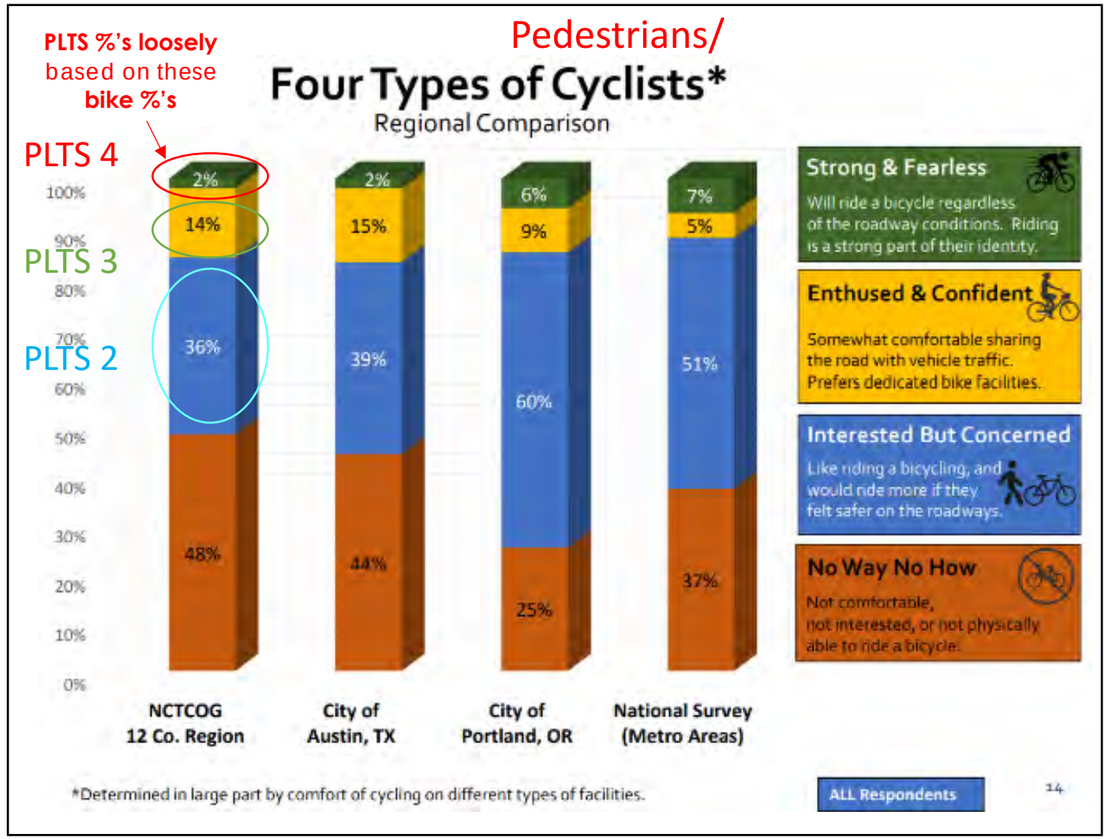


Figure E3: Data for Four Types of Cyclists Assumed Speculatively as Similar for Pedestrians



the station who would be willing or able to travel via sidewalks and crosswalks of varying PLTS stress levels. Absent more specific data, these percentages were aligned loosely (and admittedly speculatively) with survey data about the four types of cyclists as found in a recent NCTCOG survey illustrated in Figure E3. The assumed split for different groups of transit riders follows:

- 45% of transit riders were assumed to not walk or bike to transit regardless of the stress level, either based on ability or preference for car travel (similar to 48% No Way No How for bikes).
- Up to 35% of transit riders were assumed to walk or bike to transit if they could travel exclusively on PLTS 1 or PLTS 2 sidewalk and crosswalk facilities (similar to 36% Interested But Concerned for bikes).
- Up to 15% of transit riders were assumed willing to travel on PLTS 3 facilities (similar to 14% Enthused & Confident for bikes).
- Up to 5% of transit riders were assumed willing to travel on PLTS 4 facilities (similar to 2% Stong & Fearless for bikes).

More research would be ideal to investigate actual values for these assumptions.

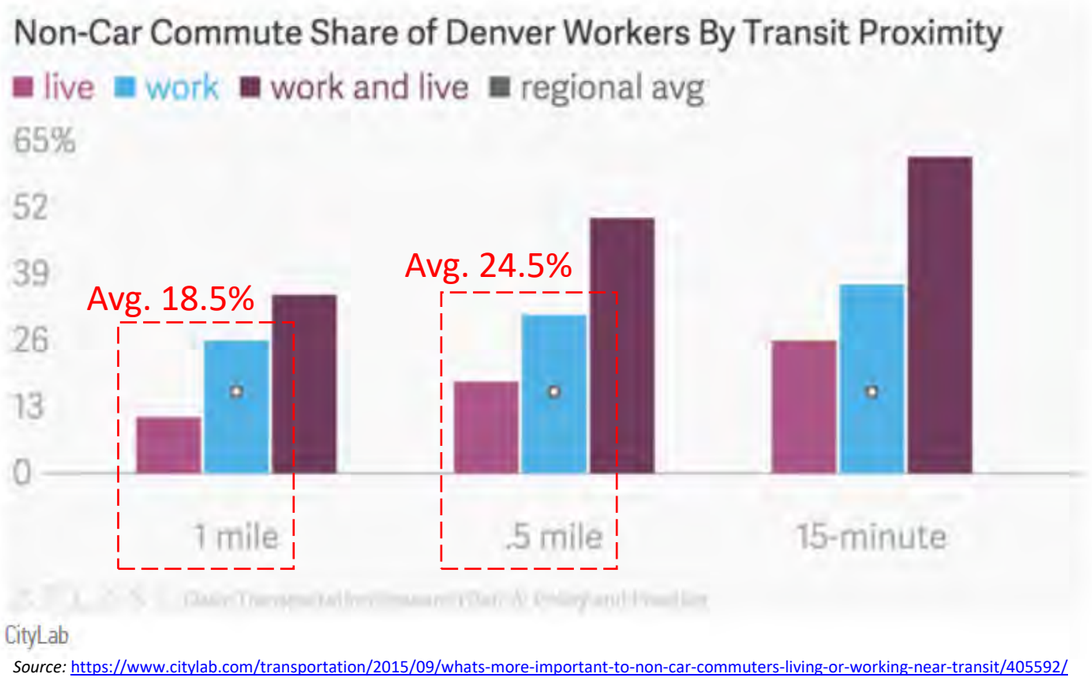
Note that some of the in the PLTS 3 or 4 categories might be termed transit-dependent riders who don't have access to a car and for whom bus transfers to the station are not sufficiently convenient.

Each of the above assumed percentages was reduced based on a sliding scale for the distance of the parcel in question from the station. The sliding scale was based on data from a 2015 University of Denver study illustrated in Figure E4 that explored the proximity relationship of the non-car commute share of Denver workers based on transit proximity. The study found that the average percentage of people living or working within 1 mile of the station who used a non-car commute mode was about 18.5%. Within a half-mile of the station, the percentage increased to about 24.5%.

As shown in Figure E5, plotting these two points from Figure E4 in a linear relationship allows for an extrapolated assumption that no more than 30% of people living or working immediately adjacent to a transit station (at a theoretical 0 mile walking distance) would use a non-car commute mode.

It was surmised that the Denver data (as with all real-world cases) would represent non-ideal conditions constrained by imperfect sidewalks and pedestrian stress levels similar to those present in the Dallas metroplex and other cities. Therefore, since the object of the above-described analysis was to account for pedestrian stress more directly, it was surmised that a nominal value of 20% be added to the equation shown in Figure E5 to normalize the relationship for ideal conditions and adjustment using the PLTS methods instead. This adjusted relationship for a proximity factor to

Figure E4: Findings of 2015 University of Denver Study



Source: https://www.citylab.com/transportation/2015/09/whats-more-important-to-non-car-commuters-living-or-working-near-transit/405592/

provide the percentage of transit riders using non-car modes to reach the station under ideal sidewalk and crosswalk conditions based on distance from the station is shown in Figure E6.

Separate ArcGIS models were created around the Parker Road Station for two different partial pedestrian networks in addition to the full existing pedestrian network described earlier. These represented pedestrian networks that would be accepted by the segments of the transit riding population "Interested but Concerned" and "Enthused and Confident" about walking or riding to the station.

One network included only PLTS 1 and PLTS 2 links as route options (the blue lines in Figure 9) and therefore served the most limited number of parcels. Another network allowed for travel on PLTS 3 segments (the orange lines in Figure 9) in addition to PLTS 1 and PLTS 2. This network would serve a larger number of parcels. An overall estimate of existing ridership for Parker Road Station was calculated using the above-described inputs. For each parcel, a separate calculation for each PLTS group of transit riders was made as follows:

PLTS 1+2: Parcel population x Proximity Factor x 35% of transit riders in PLTS Group

PLTS 3: Parcel population x Proximity Factor x 15% of transit riders in PLTS Group

PLTS 4: Parcel population x Proximity Factor x 5% of transit riders in PLTS Group

Figure E5: Extrapolated Relationship from 2015 University of Denver Study

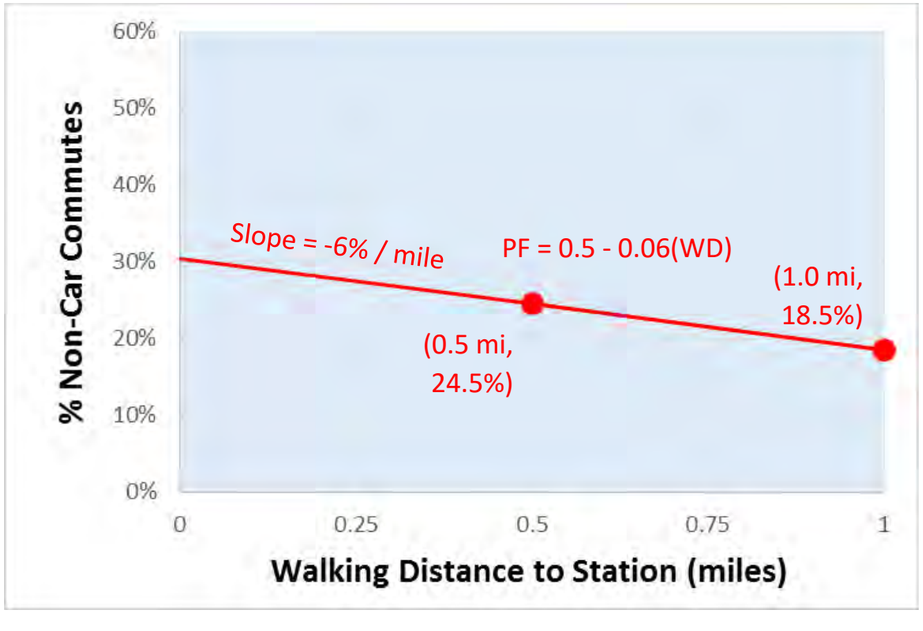


Figure E6: Adjusted Relationship Assumed for Proximity Factor

Criteria	Weight
Employment and Population Density (Number of potential riders connected by the improvement's catchment area)	50
Distance / Proximity of Improvements to the Station	25
Walkshed Trip Length Reduction (Catchment area benefitting from a reduced walk distance to the station)	5
Land Use Types and Key Destinations (e.g. schools, government buildings, social services, hospitals, large shopping centers, parks)	5
Crash History (Number of crashes in the general area of the project improvement)	5
Safety Benefit (Speed limit as a surrogate for systemic safety of the project improvement)	5
Equity / Transit Dependent Populations (Minority households, % below poverty line)	5

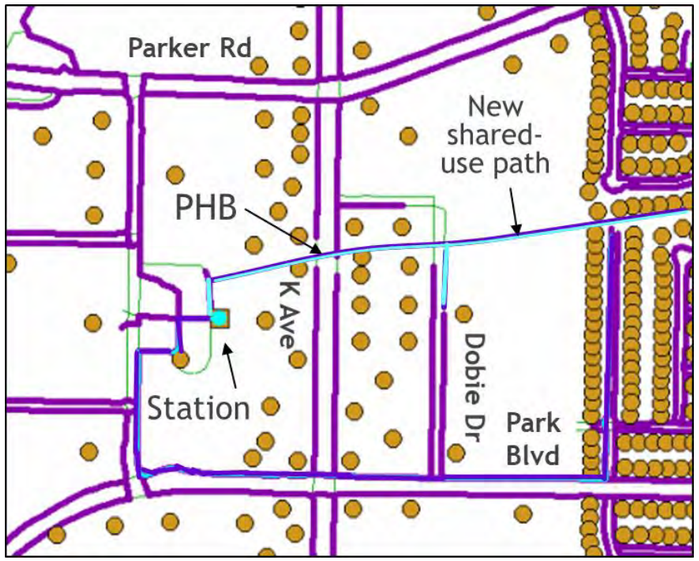
Note that the proximity factor was potentially different for each PLTS group, indicating that more selective travelers could only reach the station by following a longer path consistent with their intolerance for more stressful conditions. For parcels not connected to the station at all at a given PLTS (including PLTS 4) no ridership was assumed for that parcel as a simplifying assumption (despite the fact that many travelers, including those dependent on transit, can and do walk to the station without the benefit of sidewalk or crosswalk facilities).

The resulting estimate of existing non-car commuting trips to and from Parker Road Station was 631 people for existing conditions. This compared very favorably with 2015 survey data that had been provided by DART, indicating that 619 of the daily average riders either walked or biked to Parker Road Station.

Proposed sidewalk and crosswalk improvements were then added to the ArcGIS models for Parker Road Station so that an increase in ridership could be forecast. These are illustrated in Figure E7, which is an annotated screen capture from the GIS model where sidewalks and crosswalks are shown in purple or blue and parcel centroids are shown as brown circles.

With the originally proposed improvements, including a shared use path and pedestrian hybrid beacon (PHB) extending east of the station across K Ave, forecast ridership by non-car commute to the station was forecast to increase from 631 people to 1,018 people, a 61% increase.

Figure E7: Excerpt of Sidewalk Network, Including Originally Proposed Improvements near Parker Road Station

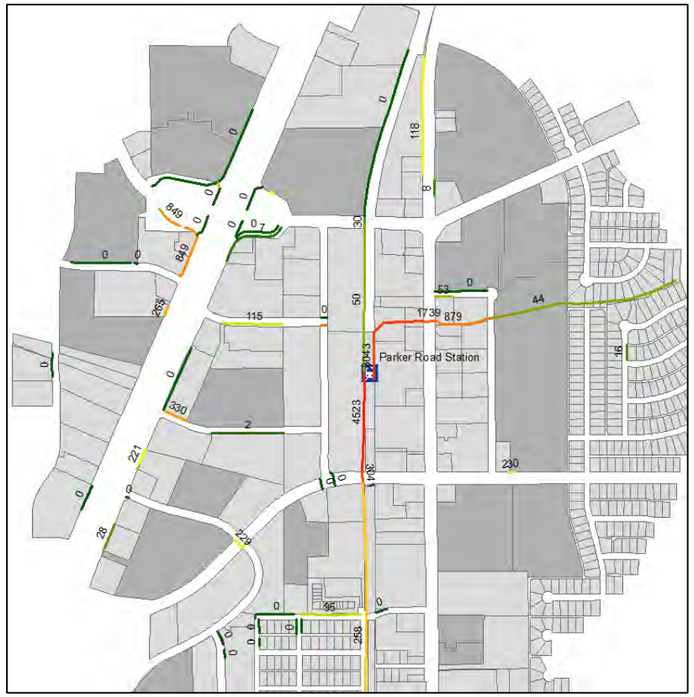


APPENDIX F: Half-Mile Area Improvement Prioritization – Final Methodology Details

After review of the process described in Appendix E, NCTCOG and the consultant team determined that the extensive editing required to the GIS shapefiles for existing sidewalks would not allow for the same level of effort at each of the 27 additional stations without compromising in other areas of the analysis. Data entry from field work could be reduced by bypassing the PLTS calculations. Finally, it was felt that some of the inputs were too speculative, despite the reasonable agreement between the existing condition model forecast and the recent DART ridership surveys.

Consequently, the prioritization process was simplified by providing separate scores for employment and population density without attempting to correlate these to ridership levels. The methods described previously were used to identify the parcel employment and population tributary to each sidewalk and crosswalk segment, without using a proximity factor or PLTS scores. Distance of each improvement from the station (measured linearly in a straight line for greater simplicity) was separated into a distinct scoring criterion, along with other scoring criteria for walkshed trip length reduction, land use types, key destinations, crash history, safety benefits, and equity. The weighting given to each criterion is shown in Table 1, in Section 2.9 of the report.

Figure F1: **Employment and Population "Tributary" to** Sidewalk & Crosswalk Improvements



Employment & Population Density

Figure F1 illustrates the process used to score improvements on the first criterion in Table 1, employment and population density. It shows the parcels in the Parker Road Station area, with darker shades of gray representing higher population/ employment totals. Note that, while some of the improvements shown in Figure F1 and other figures that follow, such as the sidewalk, pedestrian hybrid beacon, and shared use path to the east of the station, were later revised based on input from the City of Plano, the principles illustrated still apply.

In the figure, each sidewalk and crosswalk improvement link is shown in red, orange, yellow, or green colors depending on the total employment plus population that would be "tributary" to the station via the improvement once all proposed improvements are constructed. The tributary employment plus population values are shown next to each link, with the red links closest to the station having the highest values.

As a simplifying assumption, parcels straddling the half-mile boundary from the station were included in their entirety without any reductions, but parcels beyond the half-mile boundary were not considered to contribute to the analysis even though some travelers (particularly bicyclists) may be willing to travel without a car for longer distances.

Note that some improvements would have zero expected employment and population because the links connect to parcels that are currently vacant or to parcels that were assumed to have redundant, shorter routes to the station via another street or via the opposite side of the same street.

Figure F2: Proximity of Improvements to Station

Each improvement was assigned a score of 0-50 points, interpolated linearly based on the relative level of employment and population for the improvement, ranging from 0 to the maximum project-wide estimated value of 11,787.

Distance

Figure F2 illustrates the process used to score improvements on the second criterion in Table 1, distance to the station. Each improvement is shown color-coded based on the distance of its midpoint to the station, measured linearly "as the crow flies" for simplicity. Improvements that connect directly to the station have a distance of 0.0 miles. The figure shows the closer improvements shown in green and the most distant improvements in red. Points were assigned to each improvement on a linear scale ranging from 25 points for 0 miles from the station to 0 points at 0.5 mile from the station.

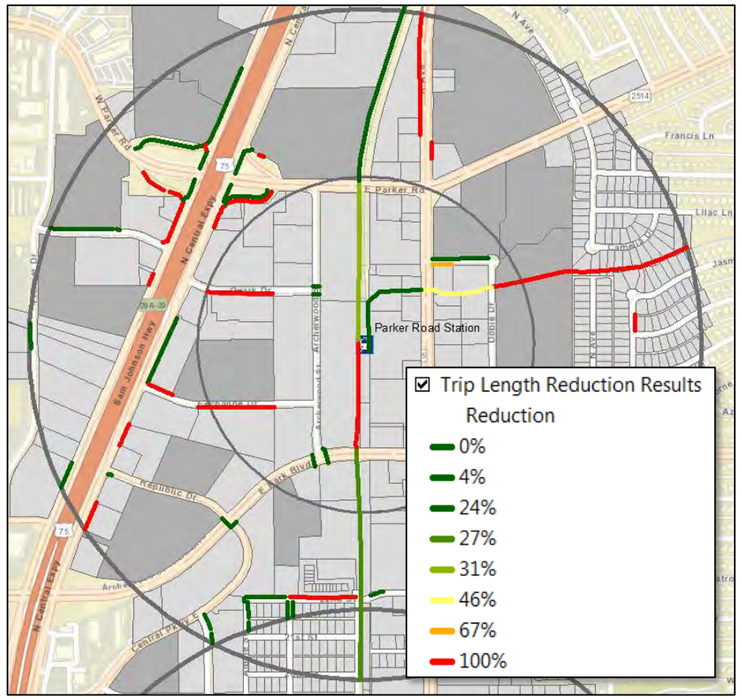
Walkshed Trip Length Reduction

Figure F3 illustrates the process used to score improvements on the third criterion in Table 1, walkshed trip length reduction. Each improvement is shown color-coded based on the percentage reduction in walking distance to the station that would occur for the population of a reference parcel selected as representative of most parcels tributary to the improvement in question. In general, the highest population parcel was chosen. When most parcels were of similar population, such as in single-family home neighborhoods, the farthest parcel was usually selected.

For each improvement, the walking distances from the reference parcel to the station along the existing and proposed pedestrian networks were measured using Network Analyst in ArcGIS. The difference between the two values was calculated as the walkshed trip length reduction.

Consideration had been given to creating a weighted average trip length reduction for all parcels, but this would have required tedious measurements and/or custom macros in ArcGIS. Therefore, this idea was abandoned for the final analysis.

Figure F3: Walkshed Trip Length Reduction



In Figure F3, improvements that would reduce trip length by a high percentage are shown in red or orange. These include improvements that would connect parcels with no existing sidewalk access to the station, which was considered for scoring purposes a 100% reduction (to avoid divide by zero errors). Lower percentages of trip length reduction are shown in yellow and shades of green. Scores for this category were assigned ranging from 0 points for no reduction in walking distance to 5 points for either a newly connected reference parcel or a reduction in walking distance greater than 40%.

Access to Land Use Types & Key Destinations

The fourth criterion for scoring improvements was access to other land use types and key destinations. Proximity to residential and employment uses had already been accounted for in the first criterion. However, other land uses with a high number of visitors also needed to be accounted for. Land uses and destinations deserving of special access consideration were as follows:

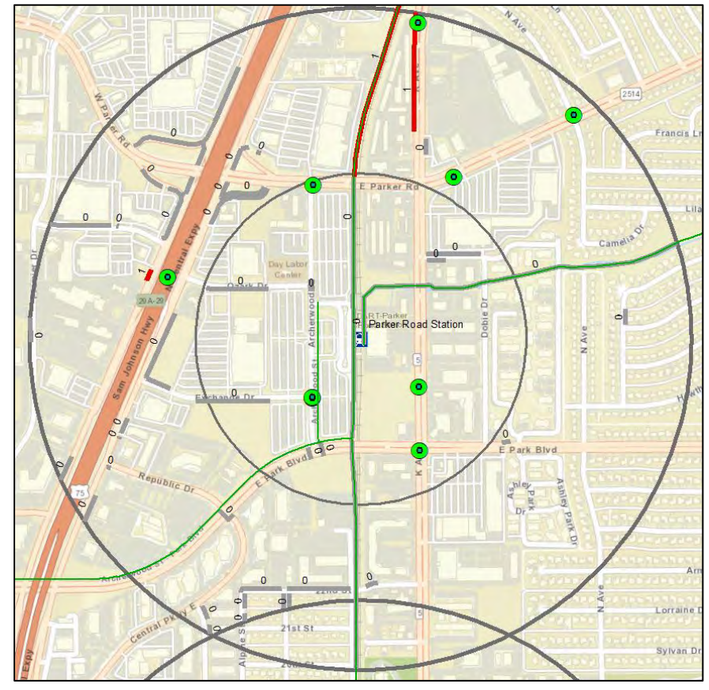
- Hospitals, clinics, urgent care
- Places of worship
- Schools
- Government buildings[3]
- Libraries, museums
- Grocery stores, malls, supercenters, hotels, motels
- Entertainment, fine arts, parks, landmarks, athletic facilities
- Senior living, community centers, gardens
- Bus stops with >25 daily boardings

A shapefile was created for locations in the above categories. Bus stop boarding information in GIS format was obtained from DART for analysis. Bus stops immediately adjacent to the DART rail stations were excluded as being redundant to the distance prioritization criteria, which already prioritizes proximity of the improvement to the station.

For each improvement, the number of key destinations within 250 feet were tabulated. Also tabulated for improvements greater than ¼ mile from the station were the number of bus *routes* within 50 feet of the improvement. The intent of this last criterion was to add emphasis on routes that would more often save time for those walking or biking to the station. Routes closer than ¼ mile were generally considered less useful for this purpose, since a walk to the station would more frequently take less time than waiting for the next bus.

For the access criterion, points were assigned ranging from 0 points for no nearby destinations or qualifying bus routes to 5 points for 5 or more nearby destinations or bus routes. Since some arterial streets may have several bus routes without necessarily having many stops or destinations nearby, the number of points contributed by bus routes was limited to no more than 3 points.

Figure F4: Relative Scarcity of Bicycle & Pedestrian Crashes



Crash History

The fifth criterion for scoring improvements in Table 1 is crash history. A GIS shapefile was used containing the point location of all reported bicycle and pedestrian crash locations for the study area from 2013 to 2017.

Figure F4 shows that in many places, such as the Parker Road Station half-mile area, bicycle and pedestrian crashes shown by green circles are relatively rare and random occurrences. In areas of lower density development and pedestrian activity, the crashes tend to be scattered throughout the study area, mostly along major arterials. Other station areas with higher density development and greater multi-modal activity experienced higher numbers of pedestrian and bicycle crashes. Since it was not possible within the scope of this project to collect pedestrian volume data, the crash data was observed to serve as somewhat of a surrogate for pedestrian demand. Therefore, a cluster of crashes may be more indicative of a place where many people walk than of a place that's more dangerous to walk in terms of the risk to individual pedestrians.

[3] in categories with an assumed high number of visitors, such as courthouses

Unfortunately, the available crash database had little detail on the nature of the crashes. For the crash shown along U.S. 75 in Figure F4, for example, the database indicated it involved a pedestrian with an incapacitating injury. However, the database did not detail what either the pedestrian or the driver involved were doing prior to the crash.

There is a sidewalk gap at this location, so perhaps the pedestrian was walking in the travel lanes of the southbound frontage road to avoid the gap. But the pedestrian could also just as well have been changing a flat tire or jaywalking across the freeway mainlanes. So, the crash data may offer some insights, but is still limited in its value for assigning relative benefits to different improvements.

The project team considered requesting police crash reports for the individual crashes and classifying them using the Federal Highway Administration's Pedestrian and Bicycle Crash Analysis Tool (PBCAT). This tool would allow for more significant insights to be drawn from a greater wealth of crash data, leading to better screening of which crash locations might be more or less susceptible to correction by certain countermeasures versus others. However, the extra effort required to code crashes was outside the scope of the project.

For the crash history criterion, improvements were scored from 0 to 5 points based on the number of bicyle- and pedestrian-related crashes within 250 feet of the improvement during the 5-year period analyzed. Figure F4 shows that only two improvements scored points near Parker Road Station. The two links in red each received 1 point for being near a single crash.

No differentiation was made in the scoring for bicycle versus pedestrian crashes or between crashes of different severity. While this data was available in the database, most bicycle and pedestrian crashes have a high potential for being serious or fatal, so it was determined any differentiation in the sparse data could be the result of statistical noise and was therefore less significant in differentiating which improvements would be of greatest benefit for positive safety outcomes.

Safety Benefit

A more recent development in transportation safety research that is designed to combat the drawbacks of traditional crash analysis mentioned in the previous section is the concept of "systemic safety." Systemic safety is a term that refers to safety approaches that are data driven, network-wide, and which consider improvements at locations with similar characteristics to high crash locations, even if the locations where improvements are to be considered or proposed don't themselves have significant crash history. The process is somewhat akin to extrapolating where it is believed crashes are more likely to occur over a longer period of perhaps 20 or 30 years, based on risk factors identified at the locations of recent crashes.

The scope for this project is in itself somewhat systemic in that areas within a half mile of light rail stations were generally observed to show higher bicycle- and pedestrian-related crash frequency than were other areas of the Dallas-Fort Worth region in general. Again, this result is not surprising due to the expected higher prevalence of multi-modal travel demand near transit stations.

As a second measure of systemic safety, the project team opted to use the posted speed limit of the roadway adjacent to sidewalk improvements or crossed by crosswalk improvements. Vehicular speed is widely regarded as having a high correlation to safety outcomes in bicycle and pedestrian crashes, as illustrated by a popular graphic in Figure F5 from the Seattle Department of Transportation.

Figure F5: Generalized Relationships between Impact Speed & Pedestrian Survival Rates

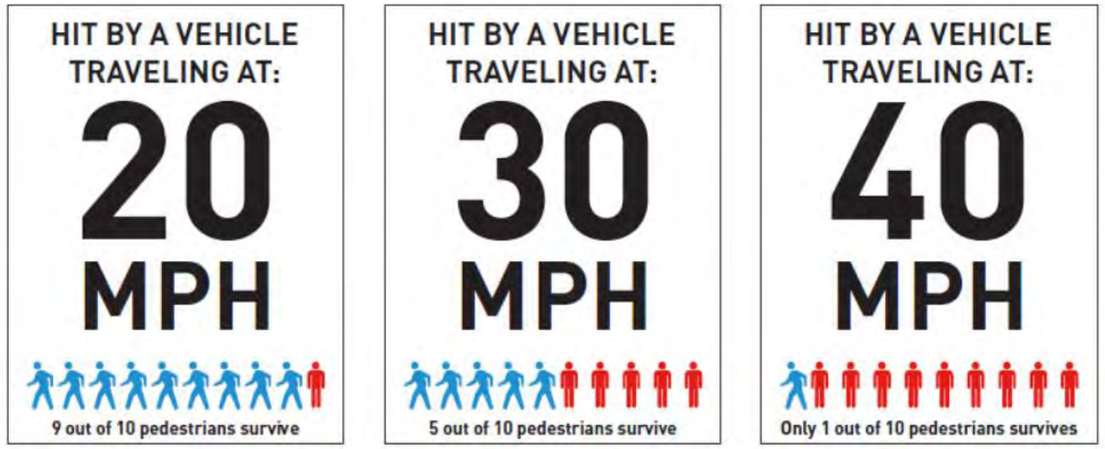


Image: Seattle Department of Transportation

The project team felt that posted speed limit was the single most important safety variable that could be easily measured and isolated, since data on posted speed was readily available in a GIS shapefile. While other variables such as 85th percentile speed and traffic volumes may be important to consider in a more detailed systemic safety study, they were determined to be outside the data collection scope of this project.

The associated scores for the safety benefit criterion ranged from 0 points at or below 20 mph to 5 points at or above 45 mph.

Shared use paths or sidewalks not adjacent to roadway alignments received 0 points for this category. Some consideration was given to assigning points for these types of off-street facilities or sidewalks along low-speed streets to prioritize safer alternatives to walking along high-speed roads. However, ultiimately it was decided that inverting the scoring system in this way would de-prioritize existing gaps along higher speed streets, which are typically the "weakest links" in the multi-modal network that lead to the greatest number of decisions to avoid pedestrian and bicycle trips.

Figure F6 shows the Parker Road Station area with the speed limit of the adjacent or crossed street identified next to each improvement, which is color-coded based on the speed limit. Red and orange improvements are near roadways with speed limits of 45 mph or greater, yellow improvements are along or crossing 40 mph roadways, and improvements are shown in green for 30 mph streets.

Equity

The final criterion for prioritizing projects was equity, which seeks to emphasize improving communities with populations that have not historically received equal access to resources. The consultants were provided spatial data covering the project area for an equity metric, the Environmental Justice Index. This index is compiled by NCTCOG to comply with federal rules for identifying Environmental Justice populations. It is based on data from the 2013-2017 American

Community Survey, aggregated at the census block level. Each census block is categorized if the percentage of its residents is higher than the regional average for minority population, low income, or both. Figure F7 shows a map of Environmental Justice Index areas for the areas including the 28 half-mile station areas for the Red & Blue Lines Last Mile Connections project.

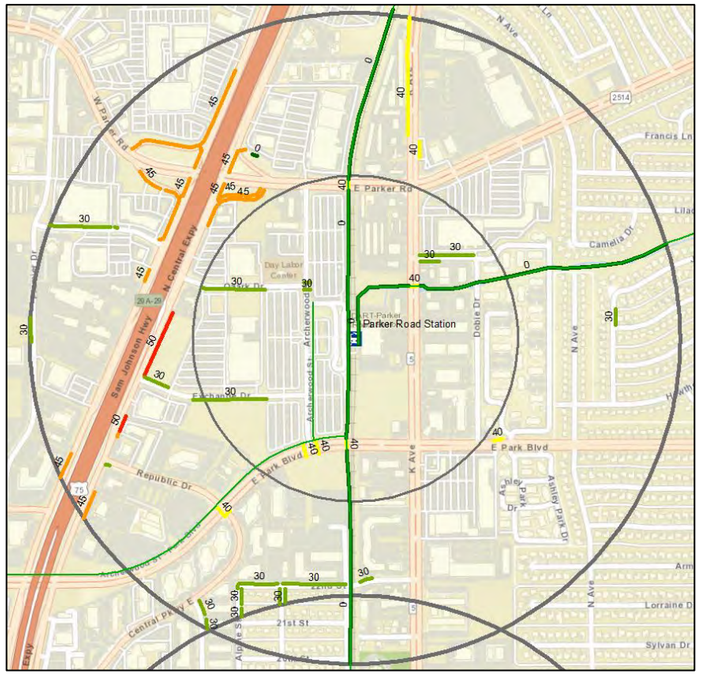
The map shows yellow areas with an above average percentage of low income residents, blue areas with an above average percentage of minority residents, and green areas with an above average percentage of both low income and minority residents. For areas where the map background is visible without any yellow, blue, or green color, no points were scored for the equity criterion. For low income and minority areas (yellow and blue), 3 points were scored for each improvement. For areas with both a higher than average percentage of low income and minority residents (green), 5 points were scored for each improvement.

Gaps to Remain

The consulting team categorized some segments where gaps in the pedestrian network had been identified by NCTCOG during preliminary GIS work to be gaps to remain for the final project listing. This decision was based on field conditions that would be impractical to analyze or would make sidewalk construction extremely cost-prohibitive. Examples include:

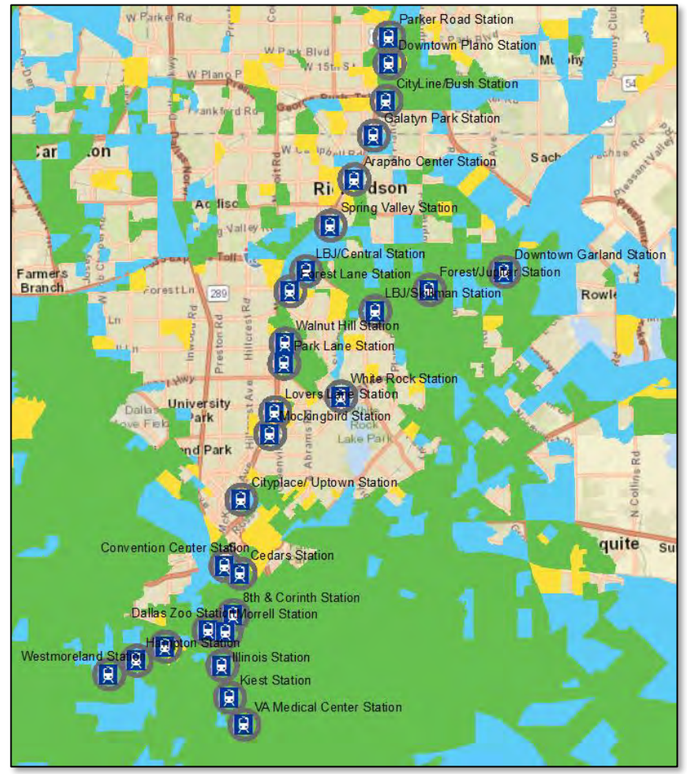
- Segments not connecting to the station without exiting the half-mile area.
- Right-of-way would be needed from a cemetery.
- Widening of existing bridge structures would be required without significant likely pedestrian demand.
- A building structure would need to be removed or modified.
- Parallel pedestrian access is provided a short distance away by a trail or another sidewalk such that new sidewalk adjacent to the street would be redundant.
- Street function is as a fire lane, service drive, or alleyway exclusively for vehicular use and pedestrian access is provided by sidewalk on the opposite side of the building.
- Inadequate space exists for sidewalk between roadway edge and DART tracks, without sufficient right-of-way or spare capacity to recommend a road diet.
- Environmental obstacles such as slopes down to creekbeds.
- Excessive impacts to residential properties (particularly those in older single-family home neighborhoods with very small yards, very short setbacks between the street and home and/or no garages or on-street parking width).
- Locked code-controlled pedestrian gates providing sidewalk access through private property (typically apartment complexes). These were modeled as gaps for the general public while still providing access to apartment residents.
- Sidewalk not needed due to lack of developable adjacent land use and existence of parallel sidewalk on opposite side of street.

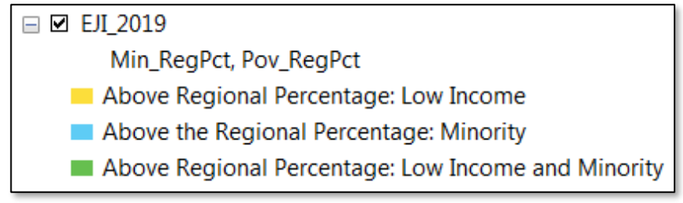
Figure F6: Improvement Scoring by Adjacent or Crossing Posted Speed Limit



- Off-street parking for small businesses blocking the way of sidewalk where parking removal would likely cause significant harm to the business.

Figure F7: NCTCOG Environmental Justic Index Mapping





In most cases where sidewalk obstacles exist, the likely challenges were documented for each improvement in notes designed to guide future planning and selection of improvements for actual projects. In some cases, the obstacles might be overcome by narrowing the roadway pavement or lane widths. If this was deemed potentially feasible, the Gap to Remain category was not used. Only where obstacles were deemed exceedingly challenging or sidewalk was judged highly unlikely to be used by anyone was the Gap to Remain category used.

Prioritization Scoring

Improvements were scored using a Microsoft Excel spreadsheet program and sorted based the overall score. The spreadsheet also summarized information on multiple consecutive GIS sidewalk

Figure F8: Screen Capture (Excerpt) from Improvement Prioritization Spreadsheet

Improvement Number	Distance		Tributary Employment & Population		Trip Length Reduction		Access					Crash History		Systemic Safety		Equity		Total Points	Priority
	Distance	Points	Tributary Emplymt + Population	Points	Trip Length Reduction	Trip Length Reduction Points	Key Destinations (incl. high rider bus stops)	Key Destination Points	Bus Routes	Bus Routes Points	Access Points	Crashes	Points	Speed Limit	Points	EJI	Points		
1B-DP-SW-127	0.30	10	2	0	100%	5	2	2	0	0	2	0	0	30	2	Low Income and Minority	5	24	High
1B-DP-SW-128	0.34	8	10	0	100%	5	4	4	0	0	4	0	0	30	2	Low Income and Minority	5	24	High
1B-DP-SW-13	0.29	11	15	0	100%	5	0	0	0	0	0	1	1	30	2	Low Income and Minority	5	24	High
1B-DP-SW-131	0.28	11	39	0	100%	5	1	1	0	0	1	0	0	30	2	Low Income and Minority	5	24	High
1B-DP-SW-35	0.34	8	1,023	4	100%	5	0	0	0	0	0	0	0	30	2	Low Income and Minority	5	24	High
1B-DP-SW-40	0.24	13	40	0	15%	2	1	1	1	1	2	0	0	30	2	Low Income and Minority	5	24	High
1B-DP-SW-66	0.26	12	543	2	100%	5	0	0	0	0	0	0	0	30	2	Low Income	3	24	High
1B-DP-CW-93	0.21	15	0	0	0%	0	1	1	0	0	1	0	0	30	2	Low Income and Minority	5	23	High
1B-DP-CW-94	0.21	15	0	0	0%	0	1	1	0	0	1	0	0	30	2	Low Income and Minority	5	23	High
1B-DP-SW-129	0.32	9	2	0	100%	5	2	2	0	0	2	0	0	30	2	Low Income and Minority	5	23	High
1B-DP-SW-143	0.32	9	33	0	100%	5	0	0	0	0	0	0	0	40	4	Low Income and Minority	5	23	High
1B-DP-SW-145	0.34	8	124	1	100%	5	0	0	0	0	0	0	0	40	4	Low Income and Minority	5	23	High
1B-DP-SW-48	0.47	2	37	0	100%	5	0	0	1	1	1	5	5	45	5	Low Income and Minority	5	23	High
1B-DP-SW-108	0.33	9	5	0	100%	5	1	1	0	0	1	0	0	30	2	Low Income and Minority	5	22	Medium
1B-DP-SW-114	0.37	7	410	2	100%	5	1	1	0	0	1	0	0	30	2	Low Income and Minority	5	22	Medium
1B-DP-SW-120	0.34	8	22	0	100%	5	2	2	0	0	2	0	0	30	2	Low Income and Minority	5	22	Medium
1B-DP-SW-133	0.35	8	8	0	100%	5	2	2	0	0	2	0	0	30	2	Low Income and Minority	5	22	Medium
1B-DP-SW-33	0.37	7	784	3	100%	5	0	0	0	0	0	0	0	30	2	Low Income and Minority	5	22	Medium
1B-DP-SW-57	0.23	14	0	0	0%	0	0	0	1	1	1	0	0	30	2	Low Income and Minority	5	22	Medium
1B-DP-SW-98	0.28	11	7	0	100%	5	0	0	0	0	0	1	1	30	2	Low Income	3	22	Medium
1B-DP-VW-V03	0.26	12	114	0	100%	5	0	0	0	0	0	0	0	0	0	Low Income and Minority	5	22	Medium
1B-DP-SW-107	0.35	8	65	0	100%	5	1	1	0	0	1	0	0	30	2	Low Income and Minority	5	21	Medium

segments on each street block to simplify the resulting improvement tables. Figure F8 shows a screen capture from the Excel spreadsheet for Downtown Plano Station. The figure does not represent a complete listing of all improvements for this station, but is shown for illustrative purposes only. The left-hand column in Figure F8 lists the identifcation number for each improvement.

Consultants evaluated each improvement for the seven criteria described above, as shown by the column headers in the top row of Figure F8. Points were assigned for each improvement based on the values of the reference inputs.

In Figure F8, the partial list of improvements is shown sorted by total points, with possible total values ranging from 0-100 points. The rows of the spreadsheet were color coded based on the priority of the improvement, with dark red for high-priority improvements, orange for medium priority, and light pink for low priority

APPENDIX G: Cost Estimating Details

DART Station Properties

At NCTCOG and DART's direction, no additional contingencies were provided to account for the pre-design nature of the estimates, made without benefit of survey, subsurface utility investigation, or engineering design practices.

Most engineering projects at early design submittals such as 30% include additional contingencies to account for unknown design details to be addressed later in design. These contingencies are typically lowered with each successive design submission and then minimized by final 100% design submission once all design procedures have been completed.

Without additional contingencies to supplement the preliminary nature of the OPCC's, the uncertainty inherent in this decision was mitigated by a general attempt to be conservative in quantity and unit price estimation. Unit prices and other elements of the OPCC's were developed consistent with the assumptions used for the half-mile areas surrounding each station.

Half-Mile Areas

Opinions of Probable Construction Cost (OPCC) were developed for each high-priority improvement that was not assumed by City staff to be built as part of another project (developer, City, TxDOT, etc.) in the near future.

OPCC's were not developed for *individual* low- or medium-priority improvements, but could be developed by the City in the future based on similar assumptions as outlined below. Rather, estimates for the overall cost of low- and medium-priority improvements were developed on a unit length basis for each station area. The low- and medium priority OPCC estimates are therefore of a lower fidelity and thus the City may consider verifiying them with more detailed individual improvement estimates prior to making further design or construction funding decisions.

The following is a discussion of simplifying assumptions that were made in order to provide quality, yet preliminary OPCC's for the DART Station on-site improvements and nearly 1,100 separate high-priority improvements totalling nearly 58 linear miles over the 28 station areas project-wide.

Table G1 lists the project-wide number and length of improvements *not* assumed to be built by others. The listing is organized by station area, priority and type of improvement (sidewalk/shared use path vs. crosswalk).

Unit Costs

Consultants compared TxDOT and City of Dallas unit prices from recent bid tabulations for various items related to construction of the proposed improvements.

Adjustments were made in the comparisons due to differences in how the specifications, measurement, and payment for the City of Dallas and TxDOT are written. For example, the comparisons were made more balanced by averaging the Dallas values for different spellings of the same item number, or by adding remove and replace items together for comparison with an item that included both in the other agency's specifications.

TxDOT unit prices were in most cases much less expensive for sidewalk related items. This may be because TxDOT is the beneficiary of economies of scale from their contractors on projects of larger size where the items being constructed are contiguous, even though the City on their projects probably builds more sidewalk-related items overall. While this theory is impossible to confirm, since the Dallas prices don't have meta-data like TxDOT does on the quantities and number of times each item was used, the project team felt this effect was most likely present in the data nonetheless.

The City of Dallas bid tabulations also featured a wider array of bid items that would be used in these type of projects compared to the TXDOT standard bid items. Nonetheless, there were some bid items identified from TxDOT that were not available in the City list of bid items. In these cases, or when TxDOT listed a higher, more conservative unit price, the TxDOT items were used for OPCC's for this project.

In all other cases, including for the unit price for sidewalk, City of Dallas unit prices were used. The project team believes that City of Dallas prices would more likely reflect what local contractors would be bidding for sidewalk projects based on size of the proposed construction packages and our experience completing these type of projects in the DFW Metroplex.

Standard Assumptions

The following standard assumptions were used for most OPCC's developed for this project, though exceptions were sometimes made on a case-by-case basis as per engineering judgment.

Facility Width & Alignment

- All new and reconstructed sidewalks were assumed to be 5 feet wide.
- All shared use paths were assumed to be 10 feet wide.
- Sidewalks and shared use paths were assumed to have alignments that could meander slightly around obstacles if necessary and if permitted by the apparent right-of-way width.

Buffer Space & Setbacks

- Reconstructed sidewalk was assumed to be set back from the street where remnants of existing sidewalk had also been set back.
- For new sidewalk, a buffer between the sidewalk and roadway edge was assumed where the apparent available right-of-way seemed to be generally at least 8 feet wide.

Curb & Gutter

- Where sufficient space for buffers did not appear to exist, or where existing, damaged sidewalk that needs to be replaced is attached to the roadway curb, removal and replacement of any existing curb and gutter was assumed to also be necessary, so these costs were also included.
- New curb, gutter, and drainage systems were assumed to be necessary where not existing adjacent to sidewalk gaps.

Retaining Walls

- Retaining walls were estimated to be needed for certain lengths and heights based on engineering judgement where slopes were deemed steep enough to require them.
- Unit costs for retaining walls were estimated based on City of Dallas standard details for short retaining walls and the unit prices for their component features as follows:
  - 1' wall height = $20/linear foot
  - 2' wall height = $40/linear foot
  - 3' wall height = $75/linear foot
  - 4' wall height = $100/linear foot
  - 5' wall height = $125/linear foot

Landscaping

- A two-foot strip of sod was assumed to be needed on each side of the work area in addition to the landscaping allowance noted below.
- Removal and replacement of trees were developed as a blended cost estimate between TxDOT costs for the item "Remove Tree and Install Plant Material" and City of Dallas costs for installing trees.

Driveways

- Standard sizes were developed for assumed reconstruction of residential and commercial driveways where needed to construct level sidewalk crossings. The standard sizes (250 sq. ft. for residential and 500 sq. ft for commercial) helped simplify the task of making variable estimates for hundreds or thousands of driveways project-wide. Instead, estimators needed only to count the number of each type of driveway likely to be affected.
- Greater variability than indicated in the estimates may be expected in the actual construction cost in areas with steeper slopes near driveway crossings.

Table G1: Summary Improvement Statistics by Station Area, Priority & Improvement Type

Station Area		High Priority Improvements				Medium Priority Improvements				Low Priority Improvements				Gaps to Remain	
		Sidewalks & Shared-Use Paths		Crosswalks		Sidewalks & Shared-Use Paths		Crosswalks		Sidewalks & Shared-Use Paths		Crosswalks			
		#	Miles	#	Miles	#	Miles	#	Miles	#	Miles	#	Miles	#	Miles
1A	Parker Rd	15	1.57	8	0.15	12	0.71	3	0.12	12	0.31	1	0.08	4	0.28
1B	Downtown Plano	26	1.17	8	0.08	59	3.09	2	0.02	48	2.32	1	0.01	8	0.71
1C	CityLine Bush	25	2.14	9	0.13	17	1.85	3	0.04	13	0.90	0	-	6	0.20
2A	Galatyn Park	8	0.60	6	0.11	12	0.46	5	0.10	21	1.64	7	0.11	11	1.09
2B	Arapaho Center	13	0.51	3	0.02	11	0.46	2	0.02	16	1.50	1	0.00	11	1.40
2C	Spring Valley	7	0.32	3	0.04	9	0.29	1	0.01	18	1.32	2	0.03	12	0.61
3A	Downtown Garland	54	3.65	3	0.03	69	2.93	4	0.05	65	1.94	5	0.04	9	0.25
3B	Forest Jupiter	26	3.28	4	0.07	16	1.38	0	-	25	1.72	1	0.02	0	-
3C	LBJ Central	29	2.31	3	0.04	19	1.80	0	-	6	0.33	0	-	2	0.02
3D	Forest Ln	15	0.83	5	0.10	18	1.08	0	-	33	1.13	1	0.01	0	-
4A	Walnut Hill	11	0.66	3	0.06	22	1.77	0	-	4	0.35	0	-	3	0.10
4B	Park Lane	35	3.03	3	0.07	23	1.35	0	-	15	0.82	0	-	3	0.11
4C	Lovers Lane	11	0.45	0	-	5	0.20	2	0.02	5	0.08	4	0.04	20	0.24
4D	Mockingbird	5	0.19	1	0.02	6	0.25	2	0.03	35	1.61	0	-	11	0.77
4E	LBJ Skillman	32	3.89	1	0.02	16	1.00	1	0.02	35	1.61	3	0.04	3	0.32
4F	White Rock	21	2.13	3	0.05	29	2.73	2	0.02	45	3.30	1	0.02	1	0.06
5A	Eight and Corinth	39	2.15	5	0.08	47	2.57	0	-	42	1.36	0	-	6	0.25
5B	Dallas Zoo	57	3.09	1	0.01	54	2.45	0	-	45	1.25	0	-	1	0.07
5C	Morrell	58	2.30	5	0.06	34	2.01	1	0.02	48	1.53	2	0.03	3	0.40
6A	Tyler Vernon	63	4.24	4	0.06	78	4.76	10	0.12	97	3.59	5	0.06	1	0.03
6B	Hampton	60	2.05	8	0.13	65	2.22	2	0.02	71	2.33	3	0.05	0	-
6C	Westmoreland	44	2.46	15	0.23	39	1.46	3	0.13	45	1.63	1	0.02	0	-
7A	Illinois	126	4.74	19	0.23	135	5.18	4	0.04	78	2.98	1	0.01	0	-
7B	Kiest	41	2.20	0	-	83	3.95	4	0.05	67	2.70	3	0.04	0	-
7C	VA Medical	55	2.65	9	0.07	69	3.43	9	0.11	75	2.93	2	0.02	6	0.49
8A	City Place	3	0.03	11	0.16	4	0.40	1	0.01	21	0.67	6	0.08	1	0.21
8B	Convention Center	8	0.34	2	0.04	4	0.69	2	0.04	3	0.06	1	0.01	6	0.27
8C	Cedars	43	1.25	10	0.12	32	1.39	3	0.03	20	0.97	0	-	9	0.62
	Totals	**930**	**54.23**	**152**	**2.16**	**987**	**51.86**	**66**	**1.00**	**1008**	**42.90**	**51**	**0.73**	**137**	**8.48**

Total High-Priority Improvements (Sidewalks + Shared Use Paths + Crosswalks) = 1,082
Total High-Priority Improvements (Sidewalks + Shared Use Paths + Crosswalks) = 56.39 miles

Streetlighting

- Where new streetlighting was recommended in conjunction with proposed crosswalk improvements, standard unit prices for the entire installation were developed for different roadway cross sections as follows:

- Two-lane undivided street = $26,500
- Three-lane undivided street = $27,200
- Four-lane undivided street = $40,500
- Four-lane divided street = $41,200
- Six-lane undivided street = $41,900
- Six-lane divided street = $42,700

- For purposes of the OPCC's, streets with medians less than 6' wide were considered undivided, with luminaire poles only on intersection corners rather than mounted in the median.

- For segments of new streetlighting along sidewalk segments on DART property, site-specific streetlighting estimates were developed.

Signals & Beacons at Crosswalks

For crosswalks where proposed traffic signal, Pedestrian Hybrid Beacon (PHB), or Rectangular Rapid Flashing Beacon (RRFB) installations are recommended, the following standard unit prices per installation were developed based on improvement type and roadway cross-section, based on typical recent experience with previous projects:

- RRFB – Three-lane crossing without median island - $24,000
- RRFB – with one solar unit sign with flashers/pushbutton in median refuge island - $36,000
- RRFB – with two solar unit signs with flashers/pushbutton in median refuge island - $48,000
- PHB or Pedestrian Traffic Signal – Three-lane undivided - $150,000
- PHB or Pedestrian Traffic Signal – Four-lane divided - $175,000
- PHB – Six-lane divided - $200,000
- Pedestrian Traffic Signal – Six-lane divided - $210,000
- Add APS pushbuttons, countdown pedestrian heads at existing signal - $3,500 per intersection + $6,000 per crosswalk

Road Diets

- Where road diets are recommended to provide shorter pedestrian crossings and/or provide space for pedestrian amenities such as median refuge islands and posts for signs, beacons and/or pushbuttons, the recommendations are made for consideration with the understanding that further, corridor-wide analysis outside the scope of this project will be required.

- The costs estimated are for making changes within a block in either direction of the pedestrian crossing, which would likely be the minimum viable improvement. In many cases, cities may consider a longer corridor for road diet implementation if spare capacity for auto traffic along the route is confirmed. However, costs associated with additional project length, or other costs associated with reconstructing curbs and islands beyond the one-block transition area or changes to signalized intersections, have *not* been included since they would difficult to estimate without additional study.

Median Anti-Climb Fencing

At a few locations where eliminating barriers to more direct pedestrian travel was determined to be impractical, aesthetic, anti-climb fencing is recommended to channelize pedestrians to the safest street crossings a reasonable distance away. City of Dallas and TxDOT standard bid items were found to be insufficient to account for this type of fencing. Consultants identified two aesthetic, anti-climb fencing system products and requested pricing information on each from vendors and contractors. Photographs of the types of fencing available have been included in the figures shown previously for the relevant locations.

Criteria in identifying a suitable type of fencing for these applications were that it be tall enough and without hand or finger holds to allow it to be climbed. Also, since several systems would be installed in close proximity to moving traffic, it should either be crashworthy as a stand-alone installation or capable of being mounted on crash-tested standard median concrete traffic barrier.

One type of custom fencing identified had been built in recent years along the relatively narrow median of a high-speed state highway near touristed beach areas in Ocean City, Maryland. Consultants spoke with the vendor who provided the fencing and the contractor who built it. It was built to resemble a white picket fence, with pointed bars at the top to discourage climbing. The fencing was mounted on breakaway supports and a specially designed concrete foundation for wind loading in an area prone to hurricanes.

The contractor indicated the bid cost for this fencing was about $440 per linear foot, which included all miscellaneous related items such as mobilization and temporary traffic control. The same wind load and foundation design would not likely be required for fencing in North Texas, but it isn't clear how much cost savings might be achieved with this change.

The contractor did not have examples of this type of fencing being built on top of concrete traffic barrier that would reduce the maintenance requirements for the fencing. If struck by errant vehicles traversing the curbed median, a significant amount of labor would be involved in replacing damaged sections.

The other type of fencing system identified was the ClearVu Invisible Wall system from Cochrane USA. This system was used as median pedestrian fencing in a recent project by TxDOT in the City of Fort Worth on Lancaster Ave. Quotes for fencing systems were obtained from Cochrane USA for the specific locations recommended for this proejct. Pricing varied from $52 to $73 per linear foot for the entire system, depending mostly whether the fencing was to be installed on ground mounted posts in wide medians or away from roadways or on top of concrete traffic barriers in narrow medians.

For the Lancaster Ave project, where a wide median was available, TxDOT indicated that bid prices including contractor labor for the project were about $90 per linear foot. However, a representative from the contractor was also contacted and indicated that he would bid a higher price of $130 to $140 per linear foot for future contracts. Their experience after installing the fencing for the first time was that it was a labor-intensive process that would not go more quickly with additional experience. Another local contractor who has installed this type of fencing on other projects indicated a typical bid price of $110 to $120 per linear foot.

After reviewing the above information, consultants decided on a unit cost of $130 / linear foot for anti-climb pedestrian fencing. This was based on 6' high fencing for stand-alone applications, or 3.5' fencing on top of 2.5' tall concrete traffic barrier for a total barrier height of 6' in narrow median applications. The $130 per linear foot value provides for a relatively generous extra labor allowance for the Clearview Invisible Wall system and/or for vendors of other similar products to be identfied.

Where median anti-climb fencing is recommended on top of concrete traffic barrier, standard TxDOT bid items for constructing concrete traffic barrier and end treatments were assumed independent of the cost of the remainder of the fence.

Right-of-Way

- No right-of-way acquisition is assumed for any improvements. Right-of-way data was unavailable for the high-level planning purposes of this study. Some assumptions about the apparent right-of-way location were made based on factors such as the location of utility poles in order to make other assumptions necessary for cost estimation.

- Some improvements on private property (such as that of hospitals or other large employers) assume that cooperation of the property owners and negotiation of easements would be necessary. However, no additional cost has been assumed for these activities.

Contingencies

The following contingencies (totaling 25%) were applied to all costs, as directed and approved by both NCTCOG and DART:

- 10% design fee
- 4% mobilization
- 4% for landscaping allowance
- 2% for Erosion & Sediment Control Allowance
- 3% for traffic control
- 2% extra contingency for federal aid project

At NCTCOG and DART's direction, no additional contingencies were provided to account for the pre-design nature of the estimates, made without benefit of survey, subsurface utility investigation, or engineering design practices.

Most engineering projects at early design submittals such as 30% include additional contingencies to account for unknown design details to be addressed later in design. These contingencies are typically lowered with each successive design submission and then eliminated at final 100% design submission once all design procedures have been completed.

Without additional contingencies to supplement the preliminary nature of the OPCC's, the uncertainty inherent in this decision was mitigated by a general attempt to be conservative in quantity and unit price estimation, as already discussed.

APPENDIX H: Estimated Quantities & Opinions of Probable Construction Cost – Station Property Improvements

Station Improvements Matrix

Parker Road Station

Opinion of Probable Constr. Cost = $361,650

Improvement Code Legend
ID: 1A-PR-ST-01
1A ← Station Number
ST ← Station Improvement
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Location ID	Ownership	Project Type	Description	Opinion of Probable Cost
1A-PR-ST-01	DART	Lighting	Add pedestrian lighting for area where tree cover makes for dark nighttime conditions.	$ 63,000
1A-PR-ST-02	DART	Fencing	Close gap in hedges that appears to imply this as a valid location for crossing the bus loop. Consider fencing to redirect pedestrians. The lack of ramps or a crosswalk across the bus loop here makes this an inappropriate location for a crossing. A fire hydrant here is likely the reason for the gap in the hedges, so fire hydrant access from the bus loop should be preserved.	$ 600
1A-PR-ST-03	DART	Multi-Use Trail	Add Regional Veloweb shared use path to connect platform more directly to Parker Road to the north. Will require grading, new fence between parking lot and tracks, and drainage modifications. Concrete drainage swales drain parking lot downhill toward the east at several locations across proposed path alignment, so additional study will be required.	Separate Project
1A-PR-ST-04	DART	Bicycle Parking Signing	Add educational signing at all covered bike parking locations regarding rules of use. Existing covered bike parking lids were locked. Several of the locked lids were empty without bikes inside or were storing personal belongings. The locking of empty lids indicates a shortage of available covered bike parking.	$ 900
1A-PR-ST-05				$ 900
1A-PR-ST-06	DART	Bicycle Parking	Add additional covered bike parking, preferably closer to train platform (at Location 4).	$ 16,100
1A-PR-ST-07	DART	ADA Ramp or Relocate ADA Parking	Relocate ADA parking from Location 7 closer to the north crosswalk to the train platform (near Location 3). Reasons for this change are: • Ramps are absent for crossing the southbound tracks east of the bus loop (near Location 6). • Much of the ADA parking for the station is in the small parking lot immediately west of the bus loop (Location 7 and southwest of Location 10). Some ADA parking is already located southwest of the platform near Location 14. • The lack of ramps near Location 6 requires passengers in wheelchairs to travel to the compliant crosswalks at the north or south ends of the platform (Locations 7a or 7b) rather than the more direct route via the central crosswalk.	$ 24,300
1A-PR-ST-08	DART	Crosswalk Markings	Add 12” white markings on each side of brick paver crosswalks. Bus loop crosswalks are stop-controlled, but need white markings outside the brick area to be legal crosswalks.	$ 1,500
1A-PR-ST-09				
1A-PR-ST-10	DART	Crosswalk Signs and Markings	Add pedestrian warning signs and 12” white markings outside brick pavers for Kiss & Ride crosswalk. (Crosswalk is raised to slow drivers but not signed or marked.)	$ 2,300
1A-PR-ST-11	DART	Sidewalk Repair	Correct trip hazard on sidewalk.	$ 500
1A-PR-ST-12	DART	Landscaping	Trim hedges or replace with easier maintenance plants so they don’t encroach on sidewalk.	$ 6,400
1A-PR-ST-13	DART	Landscaping	Close hedge gap that provides access to existing covered bike parking (at Location 5). Gap in hedges is convenient for bicycle access to existing covered parking, but lacks ramps and conflicts with bus loop. Provide bike parking closer to platform as indicated at Location 4 above.	$ 300
1A-PR-ST-14	DART	Multi-Use Trail	Add new shared use path connecting platform more directly to Park Blvd to the south on planned Regional Veloweb alignment. May require relocation of utilities or removal of trees and/or parking spaces.	Separate Project
1A-PR-ST-18	DART	Add anti-climb fencing	Add taller anti-climb fence along east DART property line from north end of tail track to southeast corner of platform to channelize pedestrian crossings to new connection via Plano City property to the southeast	$ 211,250
Opinion of Probable Cost - DART Subtotal				$ 328,050
1A-PR-ST-15	City of Plano	Sidewalk	Add connection via City-owned property south of platform. Additional study will be required.	Separate Project
1A-PR-ST-16	City of Plano	Tree Trimming	Trim tree blocking flashing light for crosswalk.	Negligible

Station Improvements Matrix

Parker Road Station

Opinion of Probable Constr. Cost = $361,650

Improvement Code Legend
ID: 1A-PR-ST-01
1A ← Station Number
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01 ← Improvement Number (matches 1 on Map)
ST ← Station Improvement

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Location ID	Ownership	Project Type	Description	Opinion of Probable Cost
1A-PR-ST-17	City of Plano	Crosswalk Improvements	Improve the visibility of the two crosswalks across Archerwood Street: ● Add pushbuttons at each ramp so the flashing warning lights on Archerwood St don't need to operate only on a time-of-day peak hour schedule. (They were observed inactive during off-peak hours). ● Add advance yield lines and "Yield Here to Pedestrians" signing. ● Consider converting to Rapid Rectangular Flashing Beacon (RRFB).	$ 33,600

Opinion of Probable Cost - City of Plano Subtotal ..... $ 33,600
Opinion of Probable Cost - Total for All Recommendations at Station ..... $ 361,650

DART Last Mile Connections Project - Parker Road Station Preliminary Opinion of Probable Construction Cost

Improvement No./ Description	City of Dallas Bid Item No.	Item Description	Unit	Unit Price	Quantity	Rounded Quantity	Bid Estimate	Assumptions
1A-PR-ST-01	680 A	2"PVC STREET LIGHT CONDUIT - BORE	Lin. Ft.	$ 18.00	300	300	$ 5,400.00	Lighting needed for approx. 300'; assumed 60' spacing, or 6 poles
Add Pedestrian Lighting	687	PEDESTRIAN LIGHT FOUNDATION	Each	$ 1,208.00	6	6	$ 7,248.00	
	688	STREET LIGHT PULL BOXES	Each	$ 860.00	2	2	$ 1,720.00	
	691	PROCURE AND INSTALL PEDESTRIAN LIGHT POLE	Each	$ 2,158.00	6	6	$ 12,948.00	
	692	PROCURE AND INSTALL PEDESTRIAN LIGHT FIXTURES	Each	$ 1,382.00	6	6	$ 8,292.00	
	841	#6 STREET LIGHT WIRE	Lin. Ft.	$ 3.00	660	660	$ 1,980.00	
	842	ELECTRICAL METER AND BASE	Lump Sum	$ 12,797.00	1	1	$ 12,797.00	
		Contingency				*25%*	$ 12,596.25	
	Subtotal						*$ 63,000.00*	
1A-PR-ST-02	XXX	Install DART Handrail Fence	LF	$ 80.00	6	6	$ 480.00	Install DART Handrail Fence to span gap in hedges, while leaving the existing fire hydrant easily accessible.
Fencing		*Contingency*				*25%*	$ 120.00	
	Subtotal						*$ 600.00*	
1A-PR-ST-03	*Not Applicable*							*Part of separate Veloweb project*
Regional Veloweb								
1A-PR-ST-04	729 A	INSTALL GR. MOUNTED REG/GUIDE SIGN	Each	$ 650.00	1	1	$ 650.00	One new sign per existing bike parking location
Bike Parking Signing		*Contingency*				*25%*	$ 162.50	
	Subtotal						*$ 900.00*	
1A-PR-ST-05	729 A	INSTALL GR. MOUNTED REG/GUIDE SIGN	Each	$ 650.00	1	1	$ 650.00	One new sign per existing bike parking location
Bike Parking Signing		*Contingency*				*25%*	$ 162.50	
	Subtotal						*$ 900.00*	
1A-PR-ST-06	XXX	BikeLid covered bike parking	Each	$ 2,145.00	6	6	$ 12,870.00	Bike parking demand = 1% of ridership; 25% board w/ bike
Add Bike Parking		*Contingency*				*25%*	$ 3,217.50	
	Subtotal						*$ 16,100.00*	
1A-PR-ST-07	728	REMOVE AND RESET SIGN	Each	$ 223.00	14	14	$ 3,122.00	Remove 19 regular spaces near Loc. 3; Switch places w/ 14 HC spaces; add one ADA ramp for ea. 2 HC spaces
Relocate ADA parking closer to platform	618	BARRIER FREE RAMP	Each	$ 2,182.75	7	7	$ 15,279.25	
	XXX	STRIPE HANDICAP PARKING SPACES	Each	$ 52.50	14	14	$ 735.00	
	XXX	STRIPE REGULAR PARKING SPACES	Each	$ 7.50	14	14	$ 105.00	
	XXX	WHITE PAINT FOR HANDICAP SPACE CROSS HATCHING	LF	$ 0.60	300	300	$ 180.00	
		Contingency				*25%*	$ 4,810.31	
	Subtotal						*$ 24,300.00*	
1A-PR-ST-08-09	723 A	12" THERMOPLASTIC LANE MARKER	Lin. Ft.	$ 9.00	128	128	$ 1,152.00	12" line on either side of 30' and 34' crosswalks
Add bus loop crosswalks		*Contingency*				*25%*	$ 288.00	
	Subtotal						*$ 1,500.00*	
1A-PR-ST-10	723 A	12" THERMOPLASTIC LANE MARKER	Lin. Ft.	$ 9.00	56	56	$ 504.00	2 signs plus 12" line on either side of 28' crosswalk
Add signs and markings for Kiss & Ride crosswalk	729 A	INSTALL GR. MOUNTED REG/GUIDE SIGN	Each	$ 650.00	2	2	$ 1,300.00	
		Contingency				*25%*	$ 451.00	
	Subtotal						*$ 2,300.00*	

DART Last Mile Connections Project - Parker Road Station Preliminary Opinion of Probable Construction Cost

Improvement No./ Description	City of Dallas Bid Item No.	Item Description	Unit	Unit Price	Quantity	Rounded Quantity	Bid Estimate	Assumptions
1A-PR-ST-11	355	4" THICK REINF CONC WALK	Sq. Yd.	$ 63.00	3.56	4	$ 252.00	Replace two 4'x4' sidewalk panels
	203	REMOVE CONCRETE SIDEWALK	SF	$ 4.00	32.00	32	$ 128.00	
Correct trip hazard		*Contingency*				*25%*	$ 95.00	
	Subtotal						*$ 500.00*	
1A-PR-ST-12		Remove Existing Shrub	SF	$ 10.00	200	200	$ 2,000.00	Remove and replace shrub at edge of sidewalk to mitigate the shrub's encroachment into the sidewalk.
	DART ITEM	Plant Material (5 Gal Shrub)	SF	$ 15.00	200	200	$ 3,000.00	
Trim hedges or replace with easier maint. plants		Mulch	SY	$ 5.00	22.2	22	$ 110.00	
		Contingency				*25%*	$ 1,277.50	
	Subtotal						*$ 6,400.00*	
1A-PR-ST-13	203	Remove Concrete Sidewalk	SF	$ 4.00	8	10	$ 40.00	Remove approx. 9 SF of sidewalk concrete and replace it with one - 5 gallon shrub and mulch.
	DART ITEM	Plant Material (5 Gal Shrub)	SF	$ 15.00	10	10	$ 150.00	
Close hedge gap		Mulch	SY	$ 5.00	3	4	$ 20.00	
		Contingency				*25%*	$ 52.50	
	Subtotal						*$ 300.00*	
1A-PR-ST-14	*Not Applicable*							*Part of separate Veloweb project*
Regional Veloweb extension								
1A-PR-ST-15	*Not Applicable*							*Part of separate City project*
Connection to City-owned development site								
1A-PR-ST-16	*Not Applicable*							Assumed negligible
Tree Trimming								
1A-PR-ST-17	666	REFL PAV MRK TY I (W) 36" (YLD TRI) (100 MIL)	each	$ 40.00	12	12	$ 480.00	Assume conduit, poles, power source do not need to be updated; 4 yield triangle pavement markings per 12' width; two 18' lanes on Archerwood
	666	REF PAV MRK TY II (W) 36" (YLD TRI)	each	$ 20.00	12	12	$ 240.00	
	680	INSTALL HWY TRAF SIG (ISOLATED)	each	$ 20,000.00	1	1	$ 20,000.00	
Add pushbuttons, advance yield lines, signing & RRFB for Archerwood crosswalks	8835	ACCESSIBLE PEDESTRIAN SIGNAL UNITS	each	$ 1,200.00	4	4	$ 4,800.00	
	729 A	INSTALL GR. MOUNTED REG/GUIDE SIGN	each	$ 650.00	2	2	$ 1,300.00	
		Contingency				*25%*	$ 6,705.00	
	Subtotal						*$ 33,600.00*	
1A-PR-ST-18	XXXX	Architectural quality 6' metal fence	Lin. Ft.	$ 130.00	1300	1300	$ 169,000.00	1300' of fence length
		Contingency				*25%*	$ 42,250.00	
Add anti-climb fencing	***Subtotal***						*$ 211,250.00*	
Grand Total							***$ 361,650.00***	

Contingency Items:	Contingency	Contingency Items:	Contingency
Design Fee	10%	Erosion & Sediment Control Allowance	2%
Mobilization	4%	Traffic Control Allowance	3%
Landscaping Allowance	4%	Extra Contingency for Federal Aid Project	2%

25%
Total Contingency

Station Improvements Matrix

Downtown Plano Station

Opinion of Probable Constr. Cost = $12,350

Improvement Code Legend

ID: 1A-PR-ST-01

1A ← Station Number ST ← Station Improvement

PR ← Station Abbreviation

01 ← Improvement Number (matches 1 on Map)

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

Location ID	Ownership	Project Type	Description	Opinion of Probable Cost
1B-DP-ST-01	DART	Bicycle Parking & Signing	Increase supply of covered bike parking. Three covered bike spaces at Location 1a north of the platform were observed locked but empty at 7 am, indicating unmet demand. Locate new bike parking near south end of platform (near Location 1b) for improved access for cyclists traveling to and from the south. At both locations, add signing to discourage improper use of covered bike parking.	$ 12,350
1B-DP-ST-02	DART, City of Plano	Regional Veloweb Shared Use Path, Crosswalk Improvement	Build multi-use trail on proposed Regional Veloweb alignment west of DART tracks and on north side of 15th Street west of tracks. Where the future trail alignment crosses 15th Street, existing pedestrian demand already exists, as shown in the photo for Location 2. Crosswalk signs & markings, a median cut-through island, and ADA ramps are needed here. Pedestrians, including one wheelchair user, were observed crossing 15th Street between the tracks and the railroad crossing gates due to the lack of an accessible path. The City of Plano reports construction of this crosswalk improvement as part of CIP project 6993.	Separate Project

Opinion of Probable Cost - DART Subtotal $ 12,350

Opinion of Probable Cost - City of Plano Subtotal $ -

Opinion of Probable Cost - Total for All Recommendations at Station $ 12,350

DART Last Mile Connections Project - Downtown Plano Station Preliminary Opinion of Probable Construction Cost

Improvement No./ Description	City of Dallas Bid Item No.	Item Description	Unit	Unit Price	Quantity	Rounded Quantity	Bid Estimate	Assumptions
1B-DP-ST-01	XXX	BikeLid covered bike parking	Each	$ 2,145.00	4	4	$ 8,580.00	Bike parking demand = 2% of ridership; 25% board w/ bike
Add Bike Parking & Signing	729 A	INSTALL GR. MOUNTED REG/GUIDE SIGN	Each	$ 650.00	2	2	$ 1,300.00	
		Contingency				*25%*	$ 2,470.00	
	Subtotal						*$ 12,350.00*	
1B-DP-ST-02								
Regional Veloweb, Crosswalk Improvement		*Not Applicable*						*Part of separate projects*
Grand Total							***$ 12,350.00***	

Station Improvements Matrix

CityLine/Bush Station

Opinion of Probable Constr. Cost = $152,600

Improvement Code Legend
ID: 1A-PR-ST-01
1A ← Station Number
ST ← Station Improvement
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Location ID	Ownership	Project Type	Description	Opinion of Probable Cost
1C-CB-ST-01	DART	Tourist Sign Relocation	The Dallas tourism "BiG" sign on Routh West Dr just south of the station should be reversed to face the opposite direction or the sign should be relocated to a safer position. The sign faces the street, a poor orientation since those taking photographs of others posing at the sign will be tempted to stand in the travel lanes.	$ 900
1C-CB-ST-02	DART	ADA Ramp Adjustment	Widen the ADA ramp to Routh West Dr from the south end of the platform to allow wheelchair users to bypass the large vine sculpture blocking the top of the ramp.	$ 2,800
1C-CB-ST-04	DART/City of Richardson	Warning Signs & Ramps	Add pedestrian warning signs on the right-hand side of the roadway at the six crosswalks to the station platform across Routh East Dr and Routh West Dr. Existing signs are mounted on the left-hand side only. (The signs on the west side of Routh West Drive would be on City of Richardson property, but the signs on the east side of Routh East Drive would be on DART property). Add missing ADA ramps at two of the same locations. Of the total $10,400 cost listed at right, half is assumed attributable to DART and half to City of Richardson.	$ 10,400
1C-CB-ST-07	DART/ TxDOT/ City of Plano	Sidewalk, Crosswalk Signs & Markings, PHB	Construct a new, short segment of sidewalk on the west side of the Crawford Rd/Topridge Dr crossing under the PGBT, near the north end of the underpass adjacent to the PGBT westbound frontage road (WBFR). Add marked, signed crosswalks across the east and west legs of the WBFR. The existing sidewalk on the west side extends north from the PGBT eastbound frontage road (EBFR), but ends just south of the WBFR. These crosswalks would provide added conspicuity for pedestrians who decide crossing at the signal proposed at Location 8 would be too far out of their desired travel path. Provide pedestrian hybrid beacon with advance "Yield Here to Pedestrians" signing for crossing PGBT westbound frontage road. Cost amount shown at right (1/3 of overall cost) is assumed shared responsibility by DART, with remainder by TxDOT and City of Plano. See half-mile area improvements 1C-CB-CW-042 and 1C-CB-CW-043 for more details and cost information.	$ 63,000
1C-CB-ST-08	DART/ City of Plano/ City of Richardson	Sidewalk	Construct new sidewalk on the east side of the Crawford Rd/Topridge Dr crossing under the PGBT between the PGBT westbound frontage road (WBFR) and eastbound frontage road (EBFR). Cost amount shown (1/3 of overall cost) is assumed shared responsibility by DART, with remainder by the Cities of Plano and Richardson. See half-mile area improvement 1C-CB-CW-056 for more details and cost information.	$ 13,100
1C-CB-ST-09	DART/ TxDOT/ City of Richardson	Crosswalk Signs & Markings, PHB	Add a crosswalk across the east leg of the PGBT Eastbound Frontage Road (EBFR) at Topridge Dr. Provide pedestrian hybrid beacon with advance "Yield Here to Pedestrians" signing. See also half-mile area improvement 1C-CB-CW-059. Cost amount shown (1/3 of overall cost) is assumed shared responsibility by DART, with remainder by TxDOT and/or City of Richardson. See half-mile area improvement 1C-CB-CW-056 for more details and cost information.	$ 59,000
Opinion of Probable Cost - DART/Mixed Ownership Subtotal (DART Portion of Costs Only)				$ 144,000
Opinion of Probable Cost - City of Richardson Subtotal				$ 5,200
1C-CB-ST-03	DART/ Private Property	Sidewalk	Coordinate with the adjacent property owner to add a direct sidewalk connection between train platform & bus loop. A worn path in the grass ("goat trail)" exists between the southwest corner of the Alexan Central Apartments dog park on Pipeline Dr and the DART bus stops along the PGBT eastbound frontage road. This is the most direct route between the train station platform and the bus stops, shorter than walking north along Routh West Dr and the frontage road. See off-site improvement 1C-CB-CW-071. No assumed cost responsibility by DART.	$ -
1C-CB-ST-06	DART/ Private Property	Sidewalk	Coordinate with the adjacent property owner to construct a short segment of sidewalk for more direct travel between the southern crosswalk to the train platform and the south sidewalk along State St. A "goat trail" cuts the corner where the existing sidewalk is offset from the crosswalk, indicating existing pedestrian demand. See off-site improvement 1C-CB-CW-044. No assumed cost responsibility by DART.	$ -
Opinion of Probable Cost - DART/Private Property Subtotal				$ -
1C-CB-ST-05	TxDOT	Sidewalk repair	Repair the sidewalk panel where settlement has created a trip hazard near the pedestrian pushbutton on the north side of the President George Bush Turnpike (PGBT) eastbound frontage road at Routh West Dr.	$ 3,400
1C-CB-ST-10	TxDOT	Add Traffic Signal with Crosswalk Markings	Coordinate with TxDOT to add signalized crosswalk across the PGBT WBFR just east of the track crossing. This crosswalk will provide safer access to the DART station for residents of the apartments on the north side of the westbound frontage road. See off-site half-mile area improvement 1C-CB-CW-045 for more details. This improvement is being constucted as part of the Silver Line Project.	$ -
Opinion of Probable Cost - TxDOT Subtotal				$ 3,400
General	---	Pedestrian Ramps	Many pedestrian ramps in the station area are missing detectable warning surfaces, which should be added.	N/A
Opinion of Probable Cost - Total for All Recommendations at Station				$ 152,600

DART Last Mile Connections Project - CityLine/Bush Station Station Preliminary Opinion of Probable Construction Cost

Improvement No./ Description	City of Dallas Bid Item No.	Item Description	Unit	Unit Price	Quantity	Rounded Quantity	Bid Estimate	Assumptions
1C-CB-ST-01	728	REMOVE AND RESET SIGN	Each	$ 223.00	3	3	$ 669.00	"BIG" was assumed to be 3 signs
Tourist Sign Relocation		*Contingency*				*25%*	$ 167.25	
	Subtotal						*$ 900.00*	
1C-CB-ST-02	618	BARRIER FREE RAMP	Each	$ 2,182.75	1	1	$ 2,182.75	Assumed widening ramp to double its current width would be same cost as standard ramp.
ADA Ramp Adjustment		*Contingency*				*25%*	$ 545.69	
	Subtotal						*$ 2,800.00*	
1C-CB-ST-03	*Project straddling DART & adjacent private property - quantified under half-mile area off-site improvements.*							
Add Sidewalk	*Cost assumed attributable to City of Richardson if coordination with private property owner is successful. See off-site improvement 1C-CB-SW-071.*							
1C-CB-ST-04	729 A	INSTALL GR. MOUNTED REG/GUIDE SIGN	Each	$ 650.00	6	6	$ 3,900.00	6 signs for 6 crosswalks (right-side only) and 2 ramps
Add Warning Signs and ramps	618	BARRIER FREE RAMP	Each	$ 2,182.75	2	2	$ 4,365.50	
		Contingency				*25%*	$ 2,066.38	
	Subtotal						*$ 10,400.00*	
1C-CB-ST-05	203	REMOVE CONCRETE SIDEWALK	SF	$ 4.00	240	240	$ 960.00	Replace 12' x 20' area of sidewalk; may be less if lower panel adjacent to pole is replaced instead.
Sidewalk repair	7580	REINFORCED CONCRETE SIDEWALK	Sq. Yd.	$ 63.00	26.7	27	$ 1,701.00	
		Contingency				*25%*	$ 665.25	
	Subtotal						*$ 3,400.00*	
1C-CB-ST-06	*Project straddling DART & adjacent private property - quantified under half-mile area off-site improvements.*							
Add Sidewalk	*Cost assumed attributable to City of Richardson if coordination with private property owner is successful. See off-site improvement 1C-CB-SW-044.*							
1C-CB-ST-07	*Project straddling DART & adjacent City of Plano & TxDOT ROW - costs quantified under half-mile area off-site improvements. See off-site improvements 1C-CB-SW-042, 1C-CB-CW-042 and 1C-CB-CW-043 for detailed cost information.*							*Of total $188,900 estimated cost for crosswalks and west-side sidewalk, 1/3 is assumed for DART & 2/3 for TxDOT/City of Plano.*
Add Sidewalk, Crosswalk Signs & Markings, PHB	***Subtotal***						*$ 63,000.00*	
1C-CB-ST-08	*Project straddling DART & adjacent City of Plano & City of Richardson ROW - costs quantified under half-mile area off-site improvements. See off-site improvement 1C-CB-SW-056 for detailed cost information.*							*Of total $39,400 estimated cost for east-side sidewalk, 1/3 is assumed for DART & 2/3 for City of Plano/City of Richardson.*
Add Sidewalk	***Subtotal***						*$ 13,100.00*	
1C-CB-ST-09	*Project straddling DART & adjacent City of Plano & City of Richardson ROW - costs quantified under half-mile area off-site improvements. See off-site improvement 1C-CB-CW-059 for detailed cost information.*							*Of total $176,900 estimated cost for the crosswalk & PHB, 1/3 is assumed for DART & 2/3 for TxDOT/City of Richardson.*
Crosswalk Signs & Markings, PHB	***Subtotal***						*$ 59,000.00*	
1C-CB-ST-10	*Separate Project straddling DART & adjacent TxDOT/City of Plano ROW - See off-site improvement 1C-CB-CW-045.*							*Currently under construction as part of Silver Line Project, so no additional funding is required.*
Pedestrian Traffic Signal								
Grand Total							***$ 152,600.00***	

Contingency Items:	Contingency	Contingency Items:	Contingency	
Design Fee	10%	Erosion & Sediment Control Allowance	2%	25%
Mobilization	4%	Traffic Control Allowance	3%	Total Contingency
Landscaping Allowance	4%	Extra Contingency for Federal Aid Projec	2%	

APPENDIX I: Half-Mile Area Recommendation Details & Detailed Improvement Mapping

Figures 1A-3, 1A-4, 1B-3, 1B-4, 1C-3 and 1C-4 on the following pages of this appendix identify existing conditions and recommended improvements for the half-mile areas around each station in Plano. The first figure in each set indicates existing conditions and the second figure indicates the recommended improvements.

In each figure, existing sidewalks are shown in light blue, as well as Regional Veloweb shared use paths (bright green) and local shared use paths (dark green). Existing shared use paths are shown with solid lines, while proposed shared use paths are shown in dashed lines.

The density of individual parcels' population plus employment totals are shown in a multi-color scale on the existing conditions figure. The population and employment density is shown in grayscale on the recommended improvements figure to allow the improvements to stand out more clearly.

Sidewalk and crosswalk gaps are shown in red on the existing conditions figures, and in multiple colors on the recommended improvements figures, according to the priority assigned to the gap: red for high-priority, orange for medium-priority, and light pink for low-priority. Gaps to remain are shown in dark pink. For more details on these gap categories, refer to Appendix F.

Each high- medium- and low-priority improvement, along with all gaps to remain, are indicated by the boxed number labels near each improvement location. The lower right corner of each recommended improvements figure includes a legend that describes the abbreviations in the improvement ID codes, which can be used to cross-reference the improvement matrices that appear in Appendix J.

For solid red, orange, or light pink lines, the recommended improvement for a sidewalk gap is either a new or repaired 5-foot wide sidewalk along the length shown. Repairs are noted in the matrix notes for each improvement in Appendix J, and assume full removal of damaged, existing sidewalk prior to replacement.

Note that in some places dashed green lines for planned shared use paths appear on top of other colored lines. Where dashed green lines appear on top of light blue lines, this indicates that a sidewalk of adequate width exists for basic pedestrian connectivity, and that a wider shared use path is also planned in the future. Such "sidewalk widening" improvements were ***not*** considered essential to provide multi-modal connectivity to transit for the purposes of this project, and as such were not listed as numbered improvements or included in any cost estimation of high-priority improvements. They are shown on the map figures for informational purposes only.

Other dashed green lines in the existing conditions and recommended improvements figures appear on top of red, orange, or light pink lines. On the existing condtions figures, dashed green over red indicates a gap where no current sidewalk or shared use path exists but a future local or regional shared use path is planned. On the recommended improvements figures, dashed green over red, orange, or light pink also indicates a gap (of the priority indicated by the non-green color) where no current sidewalk or shared use path exists but a future local or regional shared use path is planned. In these cases, 10'-wide shared use paths ***were*** considered essential as high-priority improvements (dashed green over red) to provide multi-modal connectivity to transit, and as such were listed as numbered improvements and included in the cost estimates that follow.

Some proposed shared use paths on surrounding streets and connecting to station platform areas are drawn from the City of Plano's 2018 Bicycle Transportation Map, while other proposed facilities are new recommendations made herein based on this study.

For crosswalk gaps, the type of improvement recommended is shown with numbered dark blue circles located near each crosswalk. The numbers in the blue circles correspond to the legend of possible pedestrian safety countermeasures appearing at the upper right of the figure. The first nine items in this legend correspond to the standard nine items in Table 1 of FHWA's publication, "Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations," referenced earlier in Section 2.6, Appendix C, and Appendix D. Treatments recommended somewhere on a particular figure have a red box around them in the legend for easier reference.

The right-hand side of each existing and recommended improvements figure includes a legend for "Primary Routes." These are street segments identified by NCTCOG as candidates for further evaluation during preliminary analyses that preceeded the subject project by the consultant team. Primary Routes are denoted with a darkened black street centerline and a letter designation matching a street name indicated in the legned. Comparing the primary routes with high priority gaps on the recommended improvements figures illustrates differences between the results of this preliminary methodology with the final methodology.

The "Half Mile Area Improvements Matrices" appearing in Appendix J for each station list for each improvement the owner, improvement type, location, length, notes, priority score, and (in the case of high priority improvements not built by others) the opinion of probable construction cost. A matrix for sidewalks and shared use paths appears first, followed by a second matrix for crosswalks sorted separately. Each of the matrices is sorted by ownership and then by ID number.

The notes discuss any observations from the field visits deemed relevant, as well as challenging conditions the City and other agencies may want to consider when advancing recommended projects to design and/or construction. This type of information captured in the notes was a primary component of developing the quantities that form the basis for the opinions of probable construction cost. Also included in the notes (where provided) is feedback received from the City about upcoming projects or development that may construct the improvement. The absence of a note indicates that the sidewalk improvement appears to be relatively straightforward without obvious challenges.

In some cases, ownership of or responsibility for improvements was assumed to be shared among agencies, such as for a sidewalk crossing the Plano/Richardson City boundary or for a crosswalk from DART property across an adjacent City street. Such mixed ownership cases appear at the end of each listing with separate OPCC subtotals. In these cases, the OPCC for individual improvements or groups of improvements was split equally among each agency in the summary tables that follow in the main body of the report.

Parker Road Station

Figure 1A-3 illustrates the existing conditions in the half-mile area around the Parker Road Station. Central Expy (U.S. 75), Parker Rd, Park Blvd, and K Ave are all arterials that provide barriers to multi-modal travel to and from the station. Due to a lack of collector streets east of the station, multi-modal travel to and from that direction is significantly more circuitous, though planned shared use paths will improve the situation.

Figure 1A-4 shows the recommended improvements in the half-mile area around the Parker Road Station. Note that a portion of the half-mile circle for Parker Road Station to the south overlaps with the half-mile circle for the Downtown Plano Station. Improvements for the overlapping area were considered together with the Downtown Plano Station area, as discussed in the following section.

As discussed in Section 3.2.1, a basic challenge for pedestrian and bicycle access to this station is the lack of direct connections to and from property to the east. Pedestrians are routinely observed jumping the low fence to reach the station platform from the bowling alley parking lot to the east.

A new Regional Veloweb shared use path had earlier been anticipated to connect to the east of the station on the north side of the Plano Super Bowl bowling alley, across K Ave at a pedestrian hybrid beacon, and along a creek greenway to the existing Santa Fe Trail, whose western terminus is about 2/3 mile east of the station platform. However, City of Plano staff indicated that the right-of-way easements for this shared use path had proven too difficult to obtain, and so it had been removed from the City's 2018 update to the Bicycle Transportation Plan.

Consequently, the consultant team replaced this earlier alignment with a new local shared use path (1A-PR-VW-V5 in Figure 1A-4) extending east from the south end of the station platform along the north side of property owned by the City of Plano. At its intersection with K Ave, a pedestrian hybrid beacon (1A-PR-CW-26) would facilitate crossing six lanes of high-speed traffic. While a dedicated sidewalk alignment would not continue farther east for direct access to the apartments east of Dobie Dr due to existing businesses between K Ave and Dobie Dr here, many apartment residents would still likely be able to traverse the business parking areas on foot.

Other more direct connections to areas northeast and southeast of the station would also be provided by constructing the north-south Regional Veloweb shared use path on the west side of the station platform, parallel to the tracks, shown as improvements 1A-PR-VW-V2 and 1A-PR-VW-V3 in Figure 1A-4.

A pedestrian hybrid beacon would serve multi-modal users crossing Parker Rd to the north of the station, while a traffic signal would accomplish the same purpose for crossing Park Blvd to the south. The pedestrian hybrid beacon (PHB, also known as a HAWK beacon) has the advantage of stopping traffic only for the duration necessary for pedestrians to clear a driver's travel lane, rather than requiring a stop for the whole duration of the walk and flashing don't walk intervals.

A traditional traffic signal was selected for the shared use path crosswalk across Park Blvd because drivers may confuse the flashing "wig-wag" sequence of the stop indication for the PHB with the stop indication for the light rail gate crossing. In any case, the pedestrian traffic signal or PHB at both crossings will require additional evaluation and coordination by the City of Plano, and should be coordinated with the train control system for the DART crossing to ensure minimized disruption to traffic.

Sidewalk improvements along U.S. 75 will allow more comfortable pedestrian access to and from the station for retail employees and customers who may not have access to a private vehicle.

Additional details about other improvements recommended in Figure 1A-4, as well as challenges associated with the recommended gaps to remain, are included in the matrix notes for Parker Road Station that can be found in Appendix J.

Downtown Plano Station

Figure 1B-3 illustrates the existing conditions in the half-mile area around the Downtown Plano Station. Downtown Plano is pedestrian friendly, with on-street parking and lower speeds along 15th St south of the station promoting easier crossings. Still, some improvements can be made along 15th St, including new or improved crosswalks. The one-way pair of K Ave and Municipal Ave also carries a higher speed and volume of traffic that presents somewhat of a barrier to multi-modal travel, as does 14th St two blocks south of the station, where transit-oriented development is occurring, with more expected in the future.

Figure 1B-4 shows the recommended improvements in the half-mile area around the Downtown Plano Station. Recommended improvements include new or improved crosswalks across 15th St at I Ave, at the proposed Regional Veloweb shared use path parallel to the DART tracks, and mid-block between J Ave and K Ave. Similarly, crossings across K Ave at 16th St, 15th Place and south of 15th St can provide improved safety.

A common need at many of these locations is advance "Yield Here to Pedestrians" signing and yield line striping (Item #3 in the "Possible Pedestrian Safety Countermeasures" legend). Located 20-50 feet in advance of a crosswalk (depending on approach speeds), the yield line and associated signs help mitigate the risk of the dual threat situation for pedestrians on multi-lane crosswalk approaches by providing adequate sight distance between the pedestrian and approaching traffic when a vehicle yielding too close to the crosswalk might otherwise obscure drivers' lines of sight.

City of Plano CIP project 6993 will construct improvement 1B-DP-CW-59 immediately south of the station where pedestrian ramps and a median cut-through are missing for a significant demand of bike and pedestrian travel between the station and apartments immediately to the southwest.

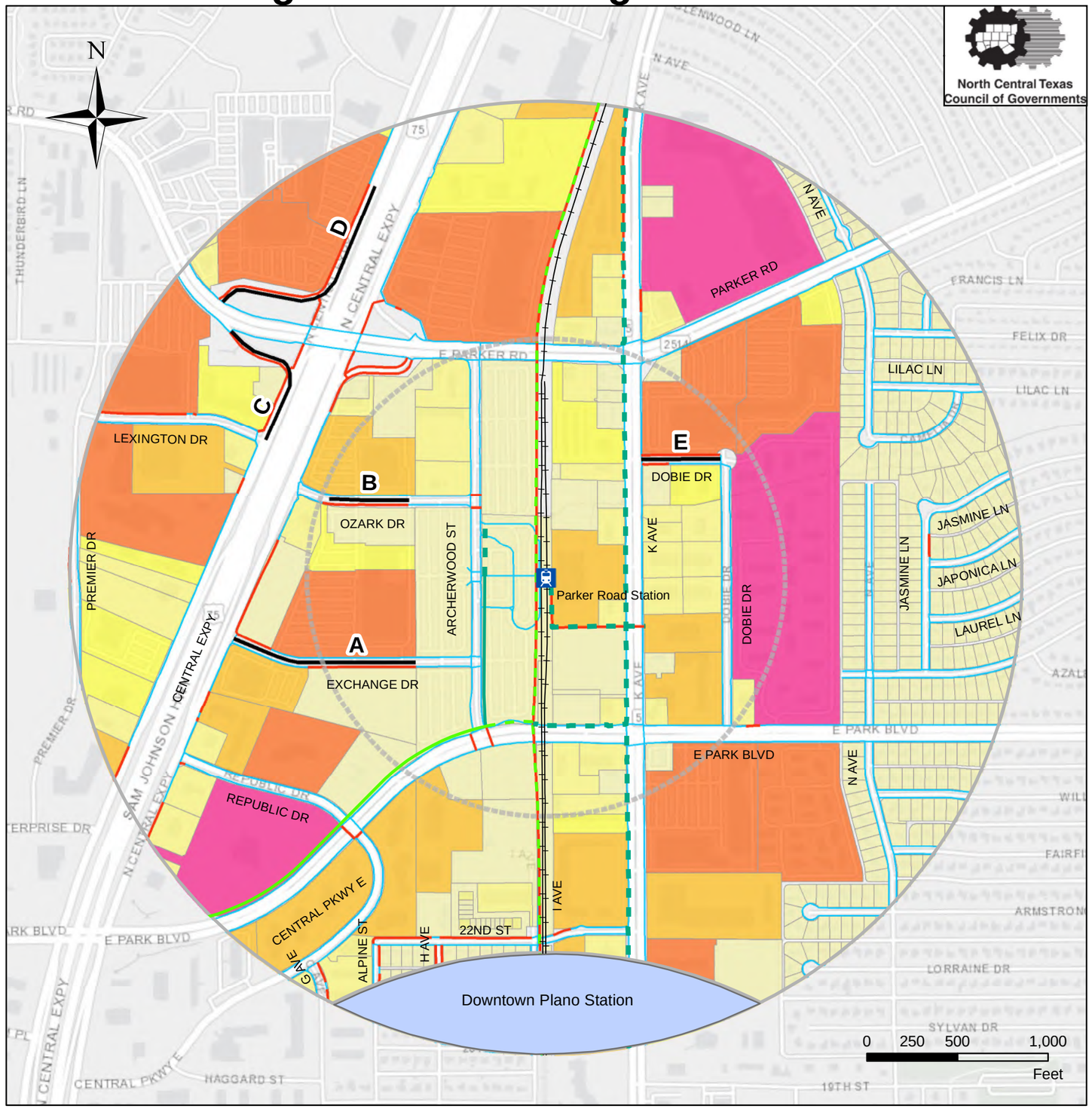
Sidewalk and crosswalk improvements 62 through 64 crossing and adjacent to the Plano Municipal Center would connect apartment complexes and single-family residential neighborhoods to the northeast more visibly and directly to the station.

The City of Plano indicated one location, a planned Regional Veloweb shared use path on the west side of the DART tracks between 15th St and 12th St, where there is not sufficient width for the shared use path shown on the City's Bicycle Master Plan. Rather than showing this link (1B-DP-VW-V02 and V03) as a gap to remain, the City directed it be retained in the project mapping as a placeholder for future planning efforts to find a feasible alignment. While the improvement was rated medium- to high-priority, no opinion of probable construction cost was provided owing to the actual infeasibility of the current alignment.

FTA DART Stations
Last Mile Connections
Parker Rd Station
November 2020

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Figure 1A-3 Existing Conditions



Legend

- DART Rail Station
- Railroad Track

Regional Veloweb (Mobility 2045)

- Regional Existing
- Regional Funded
- Regional Planned

Local Shared Use Paths

- Local Existing
- Local Funded
- Local Planned

Local On-Street Bikeways

- Local Existing Bicycle Facilities
- Local Funded Bicycle Facilities
- Local Planned Bicycle Facilities

DISPLAY

- 0.5 Mile Buffer
- 0.25 Mile Buffer
- Primary Routes

Segment Category

- Existing Sidewalk/Crosswalk
- Sidewalk/Crosswalk Gap

Existing Residential and Employment Population (Number of People)

- 0 - 10
- 11 - 50
- 51 - 100
- 101 - 250
- 251 - 578
- 579 - 1000
- 1001 - 1500
- 1501 - 2500
- 2501 - 5000
- 5001 - 24170

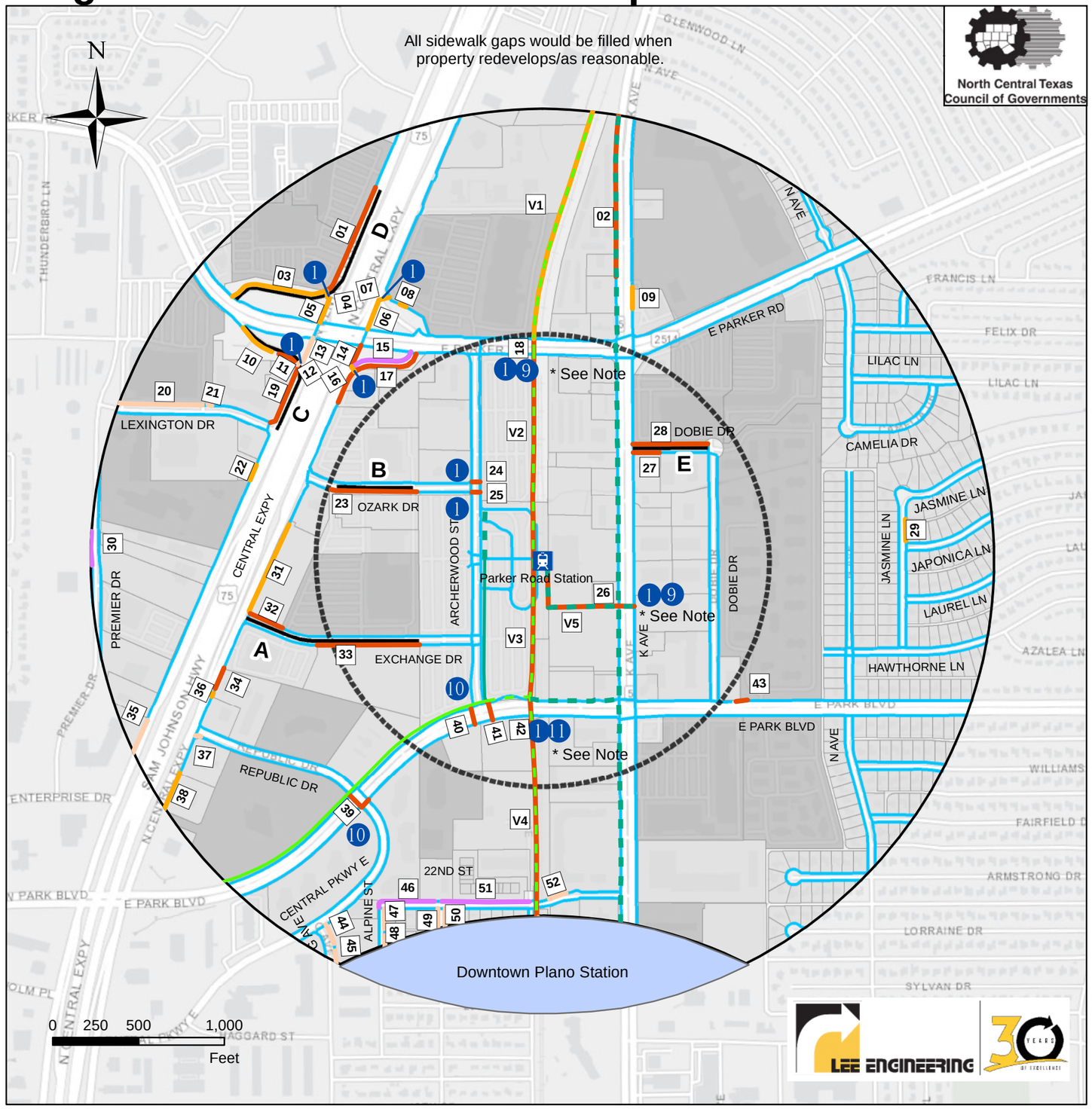
Primary Routes

Route	Street
A	Exchange Dr
B	Ozark Dr
C	Central Expy
D	Central Expy
E	Dobie Drive

FTA DART Stations
Last Mile Connections
Parker Rd Station
November 2020

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Figure 1A-4 Recommended Improvements



Legend

- DART Rail Station
- Railroad Track

Sidewalk

- Existing Sidewalk/Crosswalk

Proposed Sidewalk/ Crosswalk by Priority 1

- High
- Medium
- Low
- Gap to Remain

Regional Veloweb (Mobility 2045)

- Regional Existing
- Regional Funded
- Regional Planned

Local Shared Use Paths

- Local Existing
- Local Funded
- Local Planned

Local On-Street Bikeways

- Local Existing Bicycle Facilities
- Local Funded Bicycle Facilities
- Local Planned Bicycle Facilities

Buffers

- 0.5 Mile Buffer
- 0.25 Mile Buffer
- Primary Routes

Existing Residential and Employment Population (Number of People)

Ppl

- 0 - 234
- 235 - 1049
- 1050 - 2586
- 2587 - 5364
- 5365 - 10339

*Note: Need Contingent on Shared Use Path Construction

Possible Pedestrian Safety Countermeasures

Unsignalized Crosswalk Improvements

1. Crosswalk Signs, Markings & Lighting
2. Raised Crosswalk
3. Advance "Yield Here" Sign
4. In-Street Pedestrian Crossing
5. Curb Extension
6. Pedestrian Refuge Island
7. Rectangular Rapid Flashing Beacon
8. Road Diet
9. Pedestrian Hybrid Beacon

Signalized Crosswalk Improvements

10. Add Marked Crosswalks & Provide Countdown, Accessible Pedestrian Signals
11. Traffic Signal

Primary Routes

Route	Street
A	Exchange Dr
B	Ozark Dr
C	Central Expy
D	Central Expy
E	Dobie Drive

Improvement Code Legend (See Matrix)

1A-PR-SW-01

- 1A ← Station Number
- PR ← Station Abbreviation
- SW ← Sidewalk (or CW for Crosswalk)
- 01 ← Improvement Number (Matches 1 on Map)

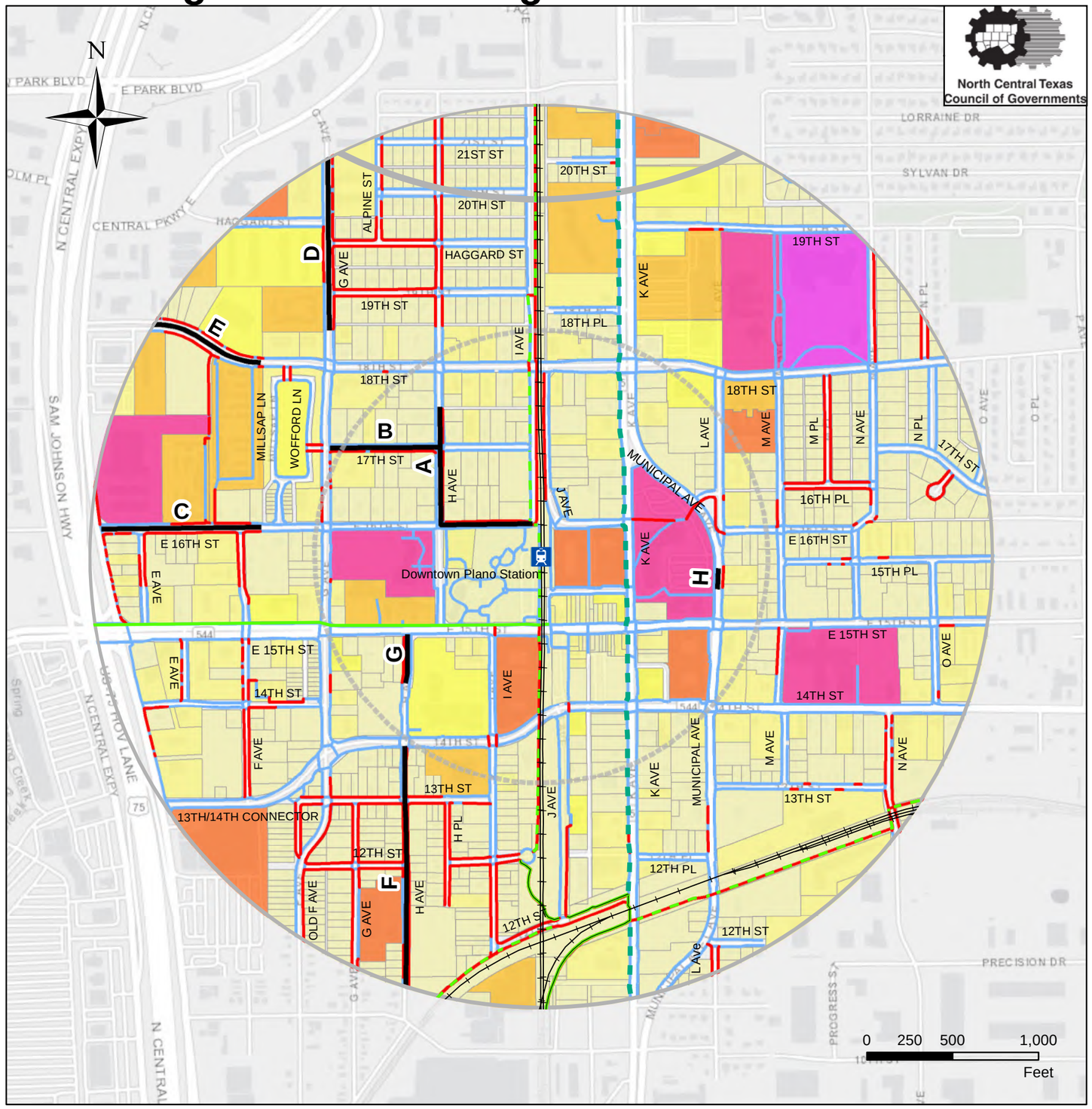
FTA DART Stations
Last Mile Connections

Downtown Plano Station

November 2020

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Figure 1B-3 Existing Conditions



Existing Residential and Employment Population (Number of People)

- 0 - 10
- 11 - 50
- 51 - 100
- 101 - 250
- 251 - 578
- 579 - 1000
- 1001 - 1500
- 1501 - 2500
- 2501 - 5000
- 5001 - 24170

Legend

- DART Rail Station
- Railroad Track

Regional Veloweb (Mobility 2045)

- Regional Existing
- Regional Funded
- Regional Planned

Local Shared Use Paths

- Local Existing
- Local Funded
- Local Planned

Local On-Street Bikeways

- Local Existing Bicycle Facilities
- Local Funded Bicycle Facilities
- Local Planned Bicycle Facilities

DISPLAY

- 0.5 Mile Buffer
- 0.25 Mile Buffer
- Primary Routes

Segment Category

- Existing Sidewalk/Crosswalk
- Sidewalk/Crosswalk Gap

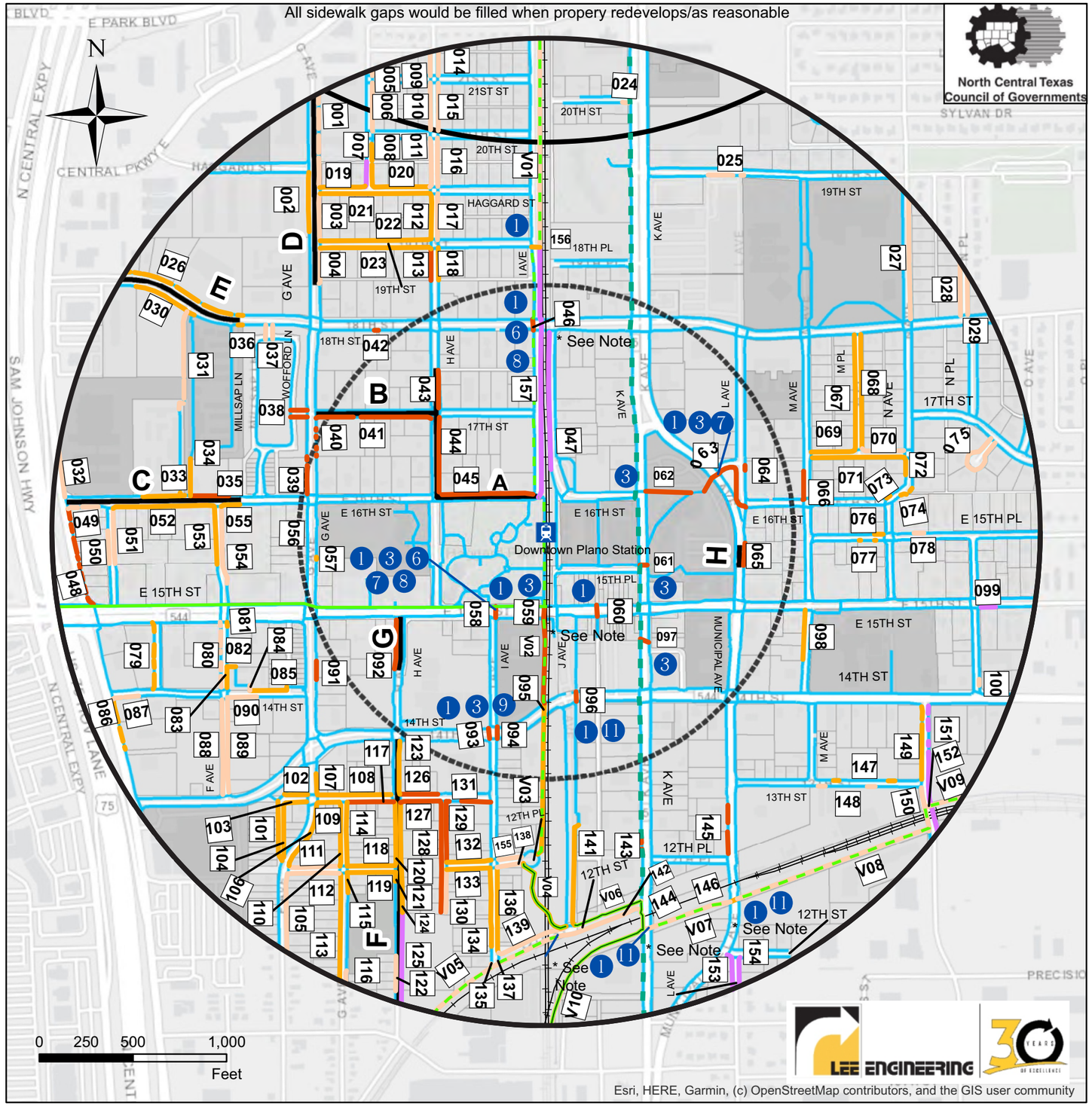
Primary Routes

Route	Street
A	E 16th St & H Ave
B	17th St
C	E 16th St
D	G Ave
E	18th St
F	H Ave
G	H Ave
H	Municipal Ave

FTA DART Stations
Last Mile Connections
Downtown Plano Station
November 2020

Figure 1B-4 Recommended Improvements

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections



Legend

- DART Rail Station
- Railroad Track

Sidewalk

- Existing Sidewalk/Crosswalk
- **Proposed Sidewalk/ Crosswalk by Priority** 1
  - High
  - Medium
  - Low
  - Gap to Remain
- **Regional Veloweb (Mobility 2045)**
  - Regional Existing
  - Regional Funded
  - Regional Planned
- **Local Shared Use Paths**
  - Local Existing
  - Local Funded
  - Local Planned
- **Local On-Street Bikeways**
  - Local Existing Bicycle Facilities
  - Local Funded Bicycle Facilities
  - Local Planned Bicycle Facilities
- Buffers
  - 0.5 Mile Buffer
  - 0.25 Mile Buffer
  - Primary Routes

Existing Residential and Employment Population (Number of People)

Ppl
- 0 - 234
- 235 - 1049
- 1050 - 2586
- 2587 - 5364
- 5365 - 10339

*Note: Need Contingent on Veloweb Construction

Possible Pedestrian Safety Countermeasures

Unsignalized Crosswalk Improvements

1. Crosswalk Signs, Markings & Lighting
2. Raised Crosswalk
3. Advance "Yield Here" Sign
4. In-Street Pedestrian Crossing
5. Curb Extension
6. Pedestrian Refuge Island
7. Rectangular Rapid Flashing Beacon
8. Road Diet
9. Pedestrian Hybrid Beacon

Signalized Crosswalk Improvements

10. Add Marked Crosswalks & Provide Countdown, Accessible Pedestrian Signals
11. Traffic Signal

Primary Routes

Route	Street
A	E 16th St & H Ave
B	17th St
C	E 16th St
D	G Ave
E	18th St
F	H Ave
G	H Ave
H	Municipal Ave

Improvement Code Legend (See Matrix)
1B-DP-SW-01
1B ← Station Number
DP ← Station Abbreviation
SW ← Sidewalk (or CW for Crosswalk)
01 ← Improvement Number (Matches 1 on Map)

Crosswalks across 14th St at I Ave, at the future Regional Veloweb alignment described in the previous paragraph, and/or at J Ave are also recommended for better multi-modal access. A PHB is recommended at I Ave (#93 and #94), while a pedestrian traffic signal is recommended at the Veloweb crossing in close proximity to J Ave (#95 and #96).

In the southern part of the study area, the existing rail tracks parallel to 12th St will be the location of the future 12th Street Station on DART's Silver Line Project. The Silver Line will begin at DFW Airport on the west and stop at 10 stations, including CityLine Bush and 12th St before reaching a terminus at the future Shiloh Road Station one stop east of 12th St. Future service is anticipated to begin in 2022.

Many of the sidewalk and shared use path connections in and around the future 12th Street Station platform will be built or reconstructed in the near future as part of the Silver Line project. The future changes are currently under design, so they may not be reflected completely in Figure 1B-4. Consequently, several of the improvements are noted in the project matrices in Appendix J as being built by others. While these improvements would rightly be considered high-priority improvements in the context of walking and biking trips to the future 12th Street Station, the new station is not part of the funding grant for this project. Therefore, their relatively greater distance from the Downtown Plano Station results in their being scored primarily as low- and medium-priority improvements in Figure 1B-4.

Additional details about other improvements recommended in Figure 1B-4, as well as challenges associated with the recommended gaps to remain, are included in the matrix notes for Downtown Plano Station that can be found in Appendix J.

<u>CityLine Bush Station</u>

Figure 1C-3 illustrates the existing conditions in the half-mile area around the CityLine Bush Station. Central Expy (U.S. 75), the President George Bush Tpk (SH 190) and K Ave/N Plano Rd all pose boundaries to multi-modal access to the station. While the station is located just south of the Richardson City line formed by the PGBT, new transit-oriented residential development has occurred north of the PGBT in Plano, with other undeveloped parcels expected to bring more such development. The current configuration of the Park & Ride lots located below the PGBT bridge structures is oriented primarily to serve DART riders driving to the station, with fewer accomodations for pedestrian and bicycle trips through the large parking lots.

Figure 1C-4 shows the recommended improvements in the half-mile area around the CityLine Bush Station. Several sidewalks and connecting crosswalks should be built through and around the Park & Ride lots below the PGBT bridges. The high posted speed limits along the PGBT frontage roads create the need for high-visibility crosswalks. Therefore, pedestrian hybrid beacons are recommended at the Crawford Rd/Topridge Dr crossings of the PGBT frontage roads (1C-CB-CW-42, 43, and 59). Also, a pedestrian traffic signal is recommended for the crossings of the PGBT westbound frontage road just east and west of the DART tracks (1C-CB-CW-44 and 45). The existing crosswalk across the WBFR west of the tracks will be removed as part of the Silver Line Construction, which is still under design but will reconfigure other existing sidewalks and crosswalks in and around the station.

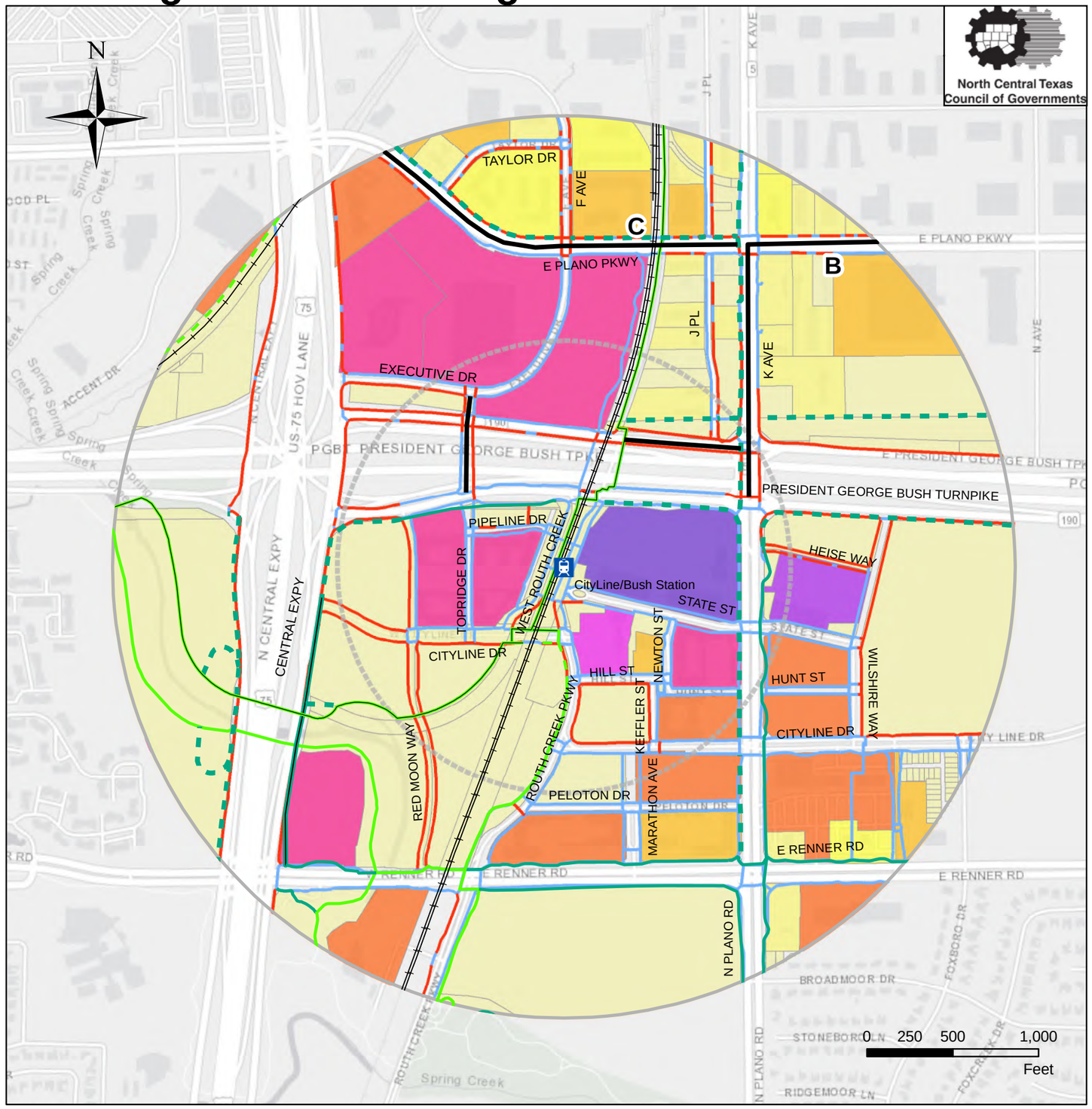
Three existing signalized intersections should receive pedestrian access improvements. Marked crosswalks and countdown, accessible pedestrian signals should be added at the intersections of Plano Pkwy with F Ave/Executive Dr and with K Ave. Though pedestrian indications are already present at the K Ave/N Plano Rd intersection with the PGBT frontage roads, sidewalks need to be added so that pedestrian travel through these intersections can occur during all weather and for DART riders of different abilities.

Additional details about other improvements recommended in Figure 1C-4, as well as challenges associated with the recommended gaps to remain, are included in the matrix notes for CityLine Bush Station that can be found in Appendix J.

FTA DART Stations
Last Mile Connections
Cityline Bush Station
November 2020

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Figure 1C-3 Existing Conditions



Legend

- DART Rail Station
- Railroad Track

Segment Category

- Existing Sidewalk/Crosswalk
- Sidewalk/Crosswalk Gap

Regional Veloweb (Mobility 2045)

- Regional Existing
- Regional Funded
- Regional Planned

Local Shared Use Paths

- Local Existing
- Local Funded
- Local Planned

Local On-Street Bikeways

- Local Existing Bicycle Facilities
- Local Funded Bicycle Facilities
- Local Planned Bicycle Facilities

DISPLAY

- 0.5 Mile Buffer
- 0.25 Mile Buffer
- Primary Routes

Existing Residential and Employment Population (Number of People)

- 0 - 10
- 11 - 50
- 51 - 100
- 101 - 250
- 251 - 578
- 579 - 1000
- 1001 - 1500
- 1501 - 2500
- 2501 - 5000
- 5001 - 24170

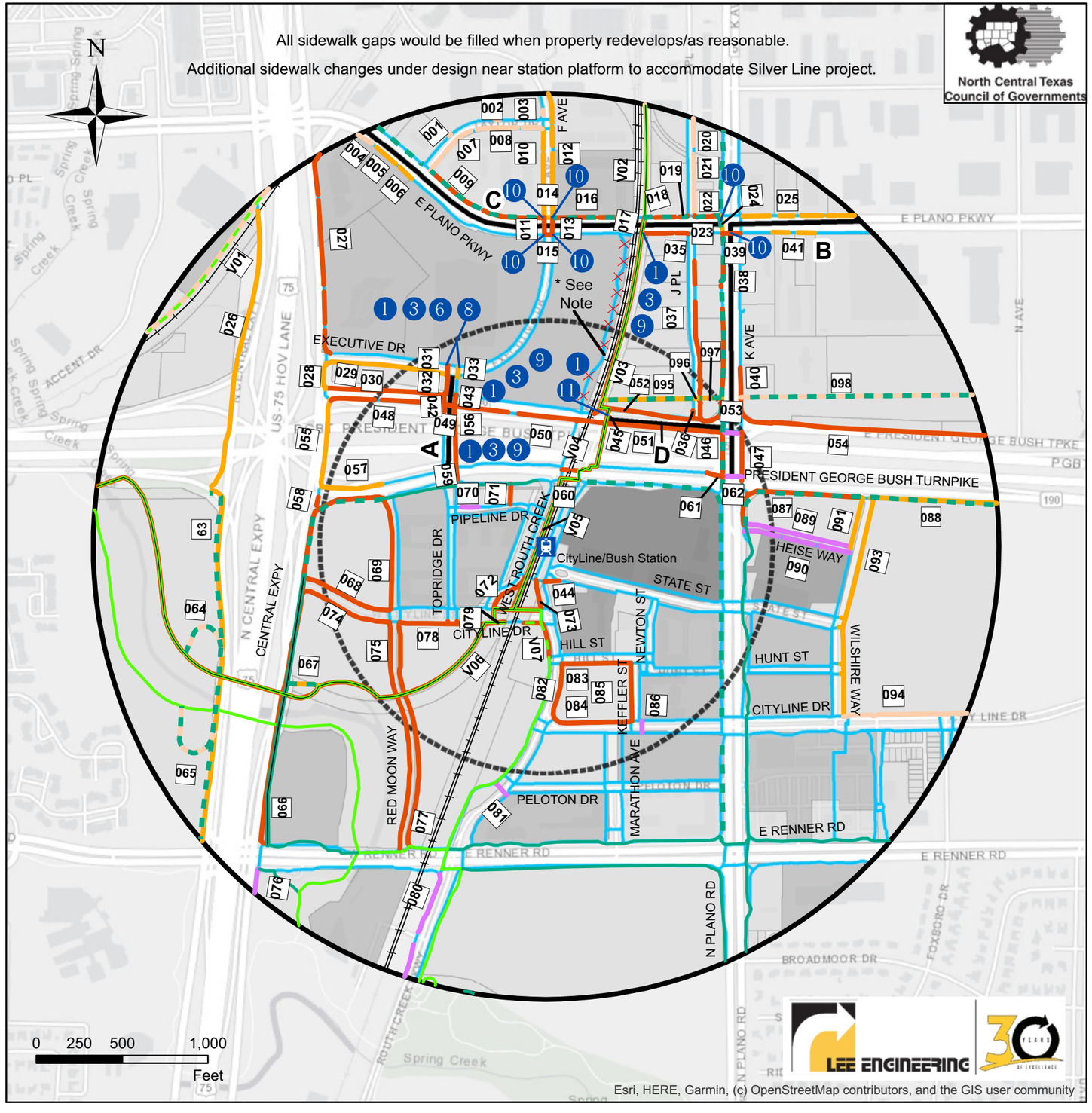
Primary Routes

Route	Street
A	Topridge Drive
B	Plano Pkwy / K Ave
C	Plano Pkwy
D	N President George Bush Turnpike

FTA DART Stations Last Mile Connections
City Line Bush Station
November 2020

Figure 1C-4 Recommended Improvements

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections



Legend

- DART Rail Station
- Railroad Track

Sidewalk

- Existing Sidewalk/Crosswalk
- **Proposed Sidewalk/ Crosswalk by Priority** 1
  - High
  - Medium
  - Low
  - Gap to Remain

Regional Veloweb (Mobility 2045)

- Regional Existing
- Regional Funded
- Regional Planned

Local Shared Use Paths

- Local Existing
- Local Funded
- Local Planned

Local On-Street Bikeways

- Local Existing Bicycle Facilities
- Local Funded Bicycle Facilities
- Local Planned Bicycle Facilities

Buffers

- 0.5 Mile Buffer
- 0.25 Mile Buffer
- Primary Routes

Existing Residential and Employment Population (Number of People)

Ppl

- 0 - 234
- 235 - 1049
- 1050 - 2586
- 2587 - 5364
- 5365 - 10339

*Note: Sidewalk to be removed to make way for DART Silver Line tracks.

Possible Pedestrian Safety Countermeasures

Unsignalized Crosswalk Improvements

1. Crosswalk Signs, Markings & Lighting
2. Raised Crosswalk
3. Advance "Yield Here" Sign
4. In-Street Pedestrian Crossing
5. Curb Extension
6. Pedestrian Refuge Island
7. Rectangular Rapid Flashing Beacon
8. Road Diet
9. Pedestrian Hybrid Beacon

Signalized Crosswalk Improvements

10. Add Marked Crosswalks & Provide Countdown, Accessible Pedestrian Signals
11. Traffic Signal

Primary Routes

Route	Street
A	Topridge Drive
B	Plano Pkwy / K Ave
C	Plano Pkwy
D	N President George Bush Turnpike

Improvement Code Legend (See Matrix)

1C-CB-SW-01

- 1C ← Station Number
- CB ← Station Abbreviation
- SW ← Sidewalk (or CW for Crosswalk)
- 01 ← Improvement Number (Matches 1 on Map)

APPENDIX J: Half-Mile Improvement Matrices

Half Mile Area Improvements Matrix

Parker Road Station

Opinion of Probable Constr. Cost = $1,472,200

Sidewalk & Shared Use Path Segments

Improvement Code Legend: **ID:** 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1A-PR-SP-02	City of Plano	Shared Use Path	K Ave	E Parker Rd & N Ave	West	950	Tight ROW exists at some pinch points. Moving utility poles, signs, underground utilities, etc. would increase cost. This side of the road is adjacent to the DART tracks with no land use to serve for over a mile north of the station, so new sidewalk may be of limited benefit for walking trips to the station. A City of Plano shared use path is planned for this section, which would be of greatest benefit to bicycle commuters arriving to the station.	25	$ 93,400
1A-PR-RP-09	City of Plano	Repair	K Ave	E Parker Rd & N Ave	East	15	Replace 3 sidewalk segments settled around storm drain inlet.	22	N/A
1A-PR-SW-20	City of Plano	New Sidewalk	Lexington Dr	N Central Expy/SB Frontage Rd & Premier Dr	North	495	Utilites present but could be avoided. Concrete steps from rear of Target store would need to be removed.	8	N/A
1A-PR-SW-21	City of Plano	New Sidewalk	Lexington Dr	N Central Expy/SB Frontage Rd & Premier Dr	North	25		7	N/A
1A-PR-SW-23	City of Plano	New Sidewalk	Ozark Dr	N Central Expy/NB Frontage Rd & Archerwood St	South	505		29	$ 35,100
1A-PR-SW-27	City of Plano	New Sidewalk	Dobie Dr	K Ave & Dobie Dr	South	155	Utility pole on southeast corner of K Ave./Dobie Drive intersection may pose challenge to connecting new sidewalk to intersection ramp. City of Plano reports this segment has been constructed as part of CIP project 6893.	29	N/A
1A-PR-SW-28	City of Plano	New Sidewalk	Dobie Dr	K Ave & Dobie Dr	North	440	Sidewalk easement outside ROW may be required to avoid utility poles. City of Plano reports this segment has been constructed as part of CIP project 6893.	24	N/A
1A-PR-SW-29	City of Plano	New Sidewalk	Jasmine Ln	Jasmine Ln & Japonica Ln	East	130		17	N/A
1A-PR-GR-30	City of Plano	Gap to Remain	Premier Dr	West Study Boundary	West	200	Segment not connected to station without exiting 1/2 mile study area coundary, so unable to consider for prioritization analysis.	0	N/A
1A-PR-SW-32	City of Plano	New Sidewalk	Exchange Dr	N Central Expy/NB Frontage Rd & Archerwood St	North	210		23	$ 12,000
1A-PR-SW-33	City of Plano	New Sidewalk	Exchange Dr	N Central Expy/NB Frontage Rd & Archerwood St	South	600		29	$ 26,500
1A-PR-SW-37	City of Plano	New Sidewalk	Republic Dr	N Central Expy/NB Frontage Rd & E Park Blvd	South	35		11	N/A
1A-PR-RP-43	City of Plano	Repair	E Park Blvd	Dobie Dr & N Ave	North	12	Replace asphalt patch with permanent concrete sidewalk (approx. 3 panels).	29	$ 900
1A-PR-SW-44	City of Plano	New Sidewalk	G Ave	Central Pkwy & South Study Boundary	East	120		10	N/A
1A-PR-SW-45	City of Plano	New Sidewalk	G Ave	Central Pkwy & South Study Boundary	East	75		9	N/A
1A-PR-GR-46	City of Plano	Gap to Remain	22nd St	Alpine St & H Ave	North	355	Wall prevents pedestrian access to and from land on north side of 22nd Street, so sidewalk is not needed.	0	N/A
1A-PR-SW-47	City of Plano	New Sidewalk	Alpine St	22nd St & 21st St	East	120		12	N/A

Half Mile Area Improvements Matrix

Parker Road Station

Opinion of Probable Constr. Cost = $1,472,200

Sidewalk & Shared Use Path Segments

Improvement Code Legend: **ID:** 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1A-PR-SW-48	City of Plano	New Sidewalk	Alpine St	North Study Boundary & 21st St	East	65		11	N/A
1A-PR-SW-49	City of Plano	New Sidewalk	H Ave	22nd St & South Study Boundary	West	125		12	N/A
1A-PR-SW-50	City of Plano	New Sidewalk	H Ave	22nd St & South Study Boundary	East	110		12	N/A
1A-PR-GR-51	City of Plano	Gap to Remain	22nd St	H Ave & I Ave	North	515	Wall prevents pedestrian access to and from land on north side of 22nd Street, so sidewalk is not needed.	0	N/A
1A-PR-SW-52	City of Plano	New Sidewalk	22nd St	I Ave & K Ave	North	105		14	N/A
1A-PR-VW-V01	City of Plano	Shared Use Path	Regional Veloweb	North Study Boundary & Parker Rd	N/A	1430	Segment would not serve any populated land use until north of the half mile study area boundary.	20	N/A
1A-PR-VW-V02	City of Plano	Shared Use Path	Regional Veloweb	Parker Rd & Station Platform	N/A	1195	Grading, new fencing, drainage structures, and concrete parking stops will all likely be required to build this Veloweb segment on DART property.	34	$ 433,200
1A-PR-VW-V03	City of Plano	Shared Use Path	Regional Veloweb	Station Platform & Park Blvd	N/A	820	Tree removal and utility adjustments will likely be required to build this Veloweb segment on DART property.	54	$ 147,300
1A-PR-VW-V04	City of Plano	Shared Use Path	Regional Veloweb	Park Blvd & 22nd St	N/A	1180		27	$ 275,600
1A-PR-VW-V05	DART/City of Plano	Shared Use Path	Local Shared Use Path	Station Platform & K Ave	N/A	640	City of Plano owns the parcel immediately south of the Plano Super Bowl bowling alley that would be used for this trail alignment.	45	$ 101,800
Opinion of Probable Cost - City of Plano Subtotal									***$ 1,125,800***
1A-PR-SW-01	TxDOT	New Sidewalk	N Central Expy/SB Frontage Rd	North Study Boundary & Parker Rd	West	675		23	$ 23,000
1A-PR-SW-03	TxDOT	New Sidewalk	N Central Expy/SB Off Ramp	N Central Expy/SB Frontage Rd & W Parker Rd	North	580	Grading needed for new sidewalk on fill slope. Utilities present but could be avoided.	21	N/A
1A-PR-SW-05	TxDOT	New Sidewalk	N Central Expy/SB Frontage Rd	Ramp to Parker Rd & Parker Rd Underpass	West	205	Connect to existing sidewalk under bridge adjacent to U.S. 75 southbound frontage road.	18	N/A
1A-PR-SW-06	TxDOT	New Sidewalk	N Central Expy/NB Frontage Rd	Ramp from Parker Rd & Parker Rd Underpass	East	250	Connect to existing sidewalk under bridge adjacent to U.S. 75 northbound frontage road.	21	N/A
1A-PR-SW-08	TxDOT	New Sidewalk	N Central Expy/NB On Ramp	N Central Expy/NB Frontage Rd & E Parker Rd	North	5	Replace single, missing sidewalk panel where deteriorated near low spot and water utilities.	21	N/A
1A-PR-SW-10	TxDOT	New Sidewalk	N Central Expy/SB On Ramp	W Parker Rd & N Central Expy/SB Frontage Rd	South	225	Grading needed for new sidewalk on fill slope. Utilities present but could be avoided.	22	N/A
1A-PR-SW-11	TxDOT	New Sidewalk	N Central Expy/SB On Ramp	W Parker Rd & N Central Expy/SB Frontage Rd	South	130		24	$ 15,000
1A-PR-SW-13	TxDOT	New Sidewalk	N Central Expy/SB Frontage Rd	Ramp from Parker Rd & Parker Rd Underpass	West	150	Connect to existing sidewalk under bridge adjacent to U.S. 75 southbound frontage road.	16	N/A

Half Mile Area Improvements Matrix

Parker Road Station

Opinion of Probable Constr. Cost = $1,472,200

Sidewalk & Shared Use Path Segments

Improvement Code Legend: **ID:** 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1A-PR-SW-14	TxDOT	New Sidewalk	N Central Expy/NB Frontage Rd	Ramp to Parker Rd & Parker Rd Underpass	East	170	Connect to existing sidewalk under bridge adjacent to U.S. 75 northbound frontage road.	23	$ 18,800
1A-PR-GR-15	TxDOT	Gap to Remain	N Central Expy/NB Off Ramp	West Parker Rd & N Central Expy/SB Frontage Rd	North	385	Coded by NCTCOG as a gap, but sidewalk is not needed on both sides of interchange ramp due to absense of trip generating land use on north side.	0	N/A
1A-PR-SW-17	TxDOT	New Sidewalk	N Central Expy/NB Off Ramp	N Central Expy & Parker Rd	South	610	Slope and utility pole conflicts may make sidewalk challenging.	30	$ 166,400
1A-PR-SW-19	TxDOT	New Sidewalk	N Central Expy/SB Frontage Rd	West Parker Rd & Lexington Dr	West	425		25	$ 70,600
1A-PR-SW-22	TxDOT	New Sidewalk	N Central Expy/SB Frontage Rd	Lexington Dr & Southwest Study Boundary	West	95	New drainage structures will be required to build sidewalk.	21	N/A
1A-PR-SW-31	TxDOT	New Sidewalk	N Central Expy/NB Frontage Rd	Ozark Dr & Exchange Dr	East	575	Existing pedestrian demand evident by worn path in the grass.	21	N/A
1A-PR-SW-34	TxDOT	New Sidewalk	N Central Expy/NB Frontage Rd	Exchange Dr & Republic Dr	East	130	Slopes, mature trees & utility pole conflicts may make sidewalk challenging.	23	$ 52,600
1A-PR-SW-35	TxDOT	New Sidewalk	N Central Expy/SB Frontage Rd	Republic Dr & Southwest Study Boundary	West	215	Existing pedestrian demand evident by worn path in the grass.	7	N/A
1A-PR-SW-36	TxDOT	New Sidewalk	N Central Expy/NB Frontage Rd	Exchange Dr & Republic Dr	East	25		21	N/A
1A-PR-SW-38	TxDOT	New Sidewalk	N Central Expy/NB Frontage Rd	Republic Dr & E Park Blvd	East	230		17	N/A

Opinion of Probable Cost - TxDOT Subtotal ..... ***$ 346,400***

Opinion of Probable Cost - Total for All Sidewalk Recommendations in Half Mile Area ..... ***$ 1,472,200***

Half Mile Area Improvements Matrix

Parker Road Station

Opinion of Probable Constr. Cost = $826,900

Improvement Code Legend: **ID:** 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Crosswalk Segments

ID	Owner	Improvement Type	Street Name	At/Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1A-PR-CW-18	City of Plano	New Crosswalk & Pedestrian Hybrid Beacon	E Parker Rd	Archerwood St & K Ave	N/A	95	Add crosswalk signs, markings, lighting, and pedestrian hybrid beacon for the future Regional Veloweb crossing of Parker Road. The need for this improvement is contingent on construction of the Regional Veloweb crossing at this location. Evaluation and integration with other signals needed.	27	$ 237,700
1A-PR-CW-24	City of Plano	New Crosswalk	Archerwood St	Ozark Dr	North	55	Add crosswalk, signs, and markings for the north leg of the intersection.	27	$ 7,900
1A-PR-CW-25	City of Plano	New Crosswalk	Archerwood St	Ozark Dr	South	55	Add crosswalk, signs, and markings for the south leg of the intersection.	38	$ 7,900
1A-PR-CW-26	City of Plano	New Crosswalk & Pedestrian Hybrid Beacon	K Ave	Dobbie Dr & E Park Blvd	N/A	95	Add crosswalk signs, markings, lighting, and pedestrian hybrid beacon for the future local shared use path crossing of K Ave. The need for this improvement is contingent on construction of the shared use path crossing at this location. Evaluation and integration with other signals needed.	34	$ 243,600
1A-PR-CW-39	City of Plano	New Crosswalk & Pedestrian Signals	E Park Blvd	Republic Dr/E Central Prkwy	Southwest & Southeast	165	Add crosswalk signs and markings and provide countdown, accessible pedestrian signals for the southeast and southwest legs of the intersection at the existing signal of Park Blvd and Republic Drive/Central Parkway.	23	$ 25,500
1A-PR-CW-40	City of Plano	New Crosswalk & Pedestrian Signals	Archerwood St	E Park Blvd	West	95	Add crosswalk signs and markings and provide countdown, accessible pedestrian signals for the west leg of the intersection at the existing signal of Park Blvd and Archerwood Street.	25	$ 23,100
1A-PR-CW-41	City of Plano	New Crosswalk & Pedestrian Signals	Archerwood St	E Park Blvd	East	125	Add crosswalk signs and markings and provide countdown, accessible pedestrian signals for the east leg of the intersection at the existing signal of Park Blvd and Archerwood Street.	26	$ 26,900
1A-PR-CW-42	City of Plano	New Crosswalk & Traffic Signal	E Park Blvd	Archerwood St & K Ave	N/A	100	Install traffic signal for future Regional Veloweb crossing of Park Blvd. Add a traffic signal, signs, markings, and lighting. A pedestrian hybrid beacon (PHB) was considered for this location, but potential exists for confusion between flashing red lights associated with a PHB and the flashing red lights associated with the rail crossing at the DART tracks. The need for this improvement is contingent on construction of the Regional Veloweb crossing at this location. Evaluation and integration with other signals needed.	42	$ 254,300
Opinion of Probable Cost - City of Plano Subtotal									***$ 826,900***

Half Mile Area Improvements Matrix

Parker Road Station

Opinion of Probable Constr. Cost = $826,900

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Crosswalk Segments

ID	Owner	Improvement Type	Street Name	At/Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1A-PR-CW-04	TxDOT	New Crosswalk	N Central Expy/SB Frontage Rd	Ramp to Parker Rd & Parker Rd Underpass	West	205	Connect to existing sidewalk under bridge adjacent to U.S. 75 southbound frontage road.	17	N/A
1A-PR-CW-07	TxDOT	New Crosswalk	N Central Expy/NB Frontage Rd	Ramp from Parker Rd & Parker Rd Underpass	East	250	Connect to existing sidewalk under bridge adjacent to U.S. 75 northbound frontage road.	19	N/A
1A-PR-CW-12	TxDOT	New Crosswalk	N Central Expy/SB Frontage Rd	Ramp from Parker Rd & Parker Rd Underpass	West	425	Connect to existing sidewalk under bridge adjacent to U.S. 75 southbound frontage road.	15	N/A
1A-PR-CW-16	TxDOT	New Crosswalk & RRFB	N Central Expy/NB Frontage Rd	Ramp to Parker Rd & Parker Rd Underpass	East	170	Connect to existing sidewalk under bridge adjacent to U.S. 75 northbound frontage road.	21	N/A

Opinion of Probable Cost - TxDOT Subtotal ..... ***$ -***
Opinion of Probable Cost - Total for All Crosswalk Recommendations in Half Mile Area ..... ***$ 826,900***

Half Mile Area Improvements Matrix

Downtown Plano Station

Opinion of Probable Constr. Cost = $1,388,500

Sidewalk & Shared Use Path Segments

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-SW-01	City of Plano	New Sidewalk	G Ave	North Study Boundary & Haggard St	East	415		12	N/A
1B-DP-SW-02	City of Plano	New Sidewalk	G Ave	Haggard St & 18th St	East	320		19	N/A
1B-DP-SW-03	City of Plano	New Sidewalk	G Ave	Haggard St & 19th St	East	260		13	N/A
1B-DP-SW-04	City of Plano	New Sidewalk	G Ave	19th St & 18th St	East	195		15	N/A
1B-DP-SW-05	City of Plano	New Sidewalk	Alpine St	North Study Boundary & 21st St	East	35		8	N/A
1B-DP-SW-06	City of Plano	New Sidewalk	Alpine St	21st St & 20th St	East	260		10	N/A
1B-DP-GR-07	City of Plano	Gap to Remain	Alpine St	20th St & Haggard St	West	135	No right-of-way availible for sidewalk due to concrete retaining wall and residential property owner fence.	0	N/A
1B-DP-SW-08	City of Plano	New Sidewalk	Alpine St	20th St & Haggard St	East	200		17	N/A
1B-DP-SW-09	City of Plano	New Sidewalk	H Ave	North Study Boundary & 21st St	West	135		13	N/A
1B-DP-SW-10	City of Plano	New Sidewalk	H Ave	21st St & 20th St	West	250		10	N/A
1B-DP-SW-11	City of Plano	New Sidewalk	H Ave	20th St & Haggard St	West	265		13	N/A
1B-DP-SW-12	City of Plano	New Sidewalk	H Ave	Haggard St & 19th St	West	245		20	N/A
1B-DP-SW-13	City of Plano	New Sidewalk	H Ave	19th St & 18th St	West	170		24	$ 11,000
1B-DP-SW-14	City of Plano	New Sidewalk	H Ave	22nd St & 21st St	East	145		8	N/A
1B-DP-SW-15	City of Plano	New Sidewalk	H Ave	21st St & 20th St	East	255		15	N/A
1B-DP-SW-16	City of Plano	New Sidewalk	H Ave	20th St & Haggard St	East	260		13	N/A
1B-DP-SW-17	City of Plano	New Sidewalk	H Ave	Haggard St & 19th St	East	250		15	N/A
1B-DP-SW-18	City of Plano	New Sidewalk	H Ave	19th St & 18th St	East	175		19	N/A
1B-DP-SW-19	City of Plano	New Sidewalk	Haggard St	G Ave & Alpine St	North	245		17	N/A
1B-DP-SW-20	City of Plano	New Sidewalk	Haggard St	Alpine St & H Ave	North	315		18	N/A
1B-DP-SW-21	City of Plano	New Sidewalk	Haggard St	G Ave & H Ave	South	590		18	N/A
1B-DP-SW-22	City of Plano	New Sidewalk	19th St	G Ave & H Ave	North	595		20	N/A
1B-DP-SW-23	City of Plano	New Sidewalk	19th St	G Ave & H Ave	South	595		20	N/A
1B-DP-SW-24	City of Plano	New Sidewalk	20th St	I Ave & K Ave	South	35	Two utility poles and a fire hydrant would make constructing this short sidewalk segment expensive.	12	N/A
1B-DP-SW-25	City of Plano	New Sidewalk	19th St	K Ave & L Ave	South	155		12	N/A
1B-DP-SW-26	City of Plano	New Sidewalk	18th St	West Study Boundary & G Ave	North	550		18	N/A
1B-DP-SW-27	City of Plano	New Sidewalk	N Ave	East Study Boundary & 18th St	West	655		16	N/A
1B-DP-SW-28	City of Plano	New Sidewalk	N Pl	East Study Boundary & 18th St	East	285		15	N/A

Half Mile Area Improvements Matrix

Downtown Plano Station

Opinion of Probable Constr. Cost = $1,388,500

Sidewalk & Shared Use Path Segments

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-SW-29	City of Plano	New Sidewalk	N Pl	East Study Boundary & 18th St	West	220		15	N/A
1B-DP-SW-30	City of Plano	New Sidewalk	18th St	West Study Boundary & Rice Field Dr	South	355		17	N/A
1B-DP-SW-31	City of Plano	New Sidewalk	N/A	18th St &E 16th St	West	510		13	N/A
1B-DP-SW-33	City of Plano	New Sidewalk	E16th St	N Central Expy & Carpenter Dr	North	245		22	N/A
1B-DP-SW-34	City of Plano	New Sidewalk	N/A	18th St & E 16th St	East	200		18	N/A
1B-DP-SW-35	City of Plano	New Sidewalk	E16th St	N Central Expy & Carpenter Dr	North	210		24	$ 22,800
1B-DP-SW-36	City of Plano	New Sidewalk	18th St	N Central Expy & Rice Field Dr	South	25		20	N/A
1B-DP-SW-37	City of Plano	New Sidewalk	Rice Field Dr	18th St & Wooster Ln	East	100		15	N/A
1B-DP-SW-38	City of Plano	New Sidewalk	17th St	Wofford Ln & G Ave	North	115		25	$ 19,700
1B-DP-SW-39	City of Plano	New Sidewalk	G Ave	18th St & E 16th St	West	175		27	$ 14,700
1B-DP-SW-40	City of Plano	New Sidewalk	G Ave	17th St & E 16th St	East	40	Ramps and sidewalk missing at driveways for Plano Vietnamese Baptist Church.	24	$ 16,100
1B-DP-SW-41	City of Plano	New Sidewalk	17th St	G Ave & H Ave	South	585	Some tree removal would be needed to build sidewalk.	30	$ 85,300
1B-DP-SW-42	City of Plano	New Sidewalk	18th St	G Ave & H ave	South	25		29	$ 17,300
1B-DP-SW-43	City of Plano	New Sidewalk	H Ave	18th St & 17th St	East	205		33	$ 111,200
1B-DP-SW-44	City of Plano	New Sidewalk	H Ave	17th St & E 16th St	East	400		35	$ 144,700
1B-DP-SW-45	City of Plano	New Sidewalk	E16th St	H Ave & I Ave	North	490	Three large trees are close to street and would risk root damage with sidewalk construction.	45	$ 107,300
1B-DP-GR-47	City of Plano	Gap to Remain	J Ave	18th St & E 16th St	West	735	Insufficient right-of-way between DART tracks and J Ave for future sidewalk.	0	N/A
1B-DP-SW-49	City of Plano	New Sidewalk	E 16th St	N Central Expy & E Ave	South	145		14	N/A
1B-DP-SW-50	City of Plano	New Sidewalk	E Ave	E 16th St & E 15th St	West	180	Wide driveways, utility poles, businesses with paved parking flush with curb may make sidewalk challenging.	10	N/A
1B-DP-SW-51	City of Plano	New Sidewalk	E Ave	E 16th St & E 15th St	East	300	Wide driveways, businesses with paved parking flush with curb may make sidewalk challenging.	10	N/A
1B-DP-SW-52	City of Plano	New Sidewalk	E 16th St	E Ave & F Ave	South	560	Three businesses with parking areas flush with the street curb would make sidewalk challenging.	20	N/A
1B-DP-SW-53	City of Plano	New Sidewalk	F Ave	E 16th St & E 15th St	West	310		21	N/A
1B-DP-SW-54	City of Plano	New Sidewalk	F Ave	E 16th St & E 15th St	East	415	Trees, utility poles, and fire hydrant in narrow right-of-way may make new sidewalk challenging.	16	N/A
1B-DP-SW-55	City of Plano	New Sidewalk	E 16th St	F Ave & G Ave	South	105		21	N/A
1B-DP-SW-57	City of Plano	New Sidewalk	G Ave	E 16th St & E 15th St	East	15		22	N/A

Half Mile Area Improvements Matrix

Downtown Plano Station

Opinion of Probable Constr. Cost = $1,388,500

Sidewalk & Shared Use Path Segments

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
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SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-SW-62	City of Plano	New Sidewalk	Plano Municipal Center	K Ave & Municipal Ave	N/A	245	Would provide more direct connection to station for apartments on northeast side of Municipal Ave. Advance yield line and "Yield Here to Pedestrians" signing needed for crosswalk across K Ave at 16th Street.	43	$ 13,100
1B-DP-SW-63	City of Plano	New Sidewalk	L Ave	Municipal Ave & E 16th St	South	425	Add sidewalk west of Municipal Ave to connect to other sidewalk on Plano Municipal Center property. Advance and overhead pedestrian flashing lights already in place at Municipal Ave crossing. Add crosswalk markings, signing, and RRFB's at crosswalk location. Add sidewalk on south and west sides of L Ave on east side of Municipal Ave. Would provide more direct connection to station for apartments on northeast side of Municipal Ave.	43	$ 24,600
1B-DP-RP-64	City of Plano	Repair	L Ave	18th St & E 16th St	East	35	Sidewalk between right-angle apartment parking and building includes steps that need to be removed and reconstructed on a slope for accessibility.	25	$ 10,700
1B-DP-SW-65	City of Plano	New Sidewalk	Municipal Ave	E 16th St & E 15th St	East	125	Utility pole, driveway, and on-street angle parking for apartments will make sidewalk connection challenging.	28	$ 70,800
1B-DP-SW-66	City of Plano	New Sidewalk	M Ave	16th Pl & E 16th St	West	160		24	$ 35,100
1B-DP-SW-67	City of Plano	New Sidewalk	M Pl	18th St & 16th Pl	West	620		20	N/A
1B-DP-SW-68	City of Plano	New Sidewalk	M Pl	18th St & 16th Pl	East	615		20	N/A
1B-DP-SW-69	City of Plano	New Sidewalk	16th Pl	M Ave & N Ave	North	235		20	N/A
1B-DP-SW-70	City of Plano	New Sidewalk	16th Pl	M Ave & N Ave	North	225		13	N/A
1B-DP-SW-71	City of Plano	New Sidewalk	16th Pl	M Ave & N Ave	South	490		19	N/A
1B-DP-SW-72	City of Plano	New Sidewalk	N Ave	16th Pl & E 16th St	West	100		17	N/A
1B-DP-SW-73	City of Plano	New Sidewalk	N Ave	16th Pl & E 16th St	West	25		18	N/A
1B-DP-SW-74	City of Plano	New Sidewalk	N Ave	16th Pl & E 16th St	East	55		17	N/A
1B-DP-SW-75	City of Plano	New Sidewalk	Concord Cir	N Ave & East Study Boundary	South	455		14	N/A
1B-DP-RP-76	City of Plano	Repair	15th Pl	M Ave & N Ave	North	45	Several panels that have settled >2" around storm drain inlet need to be replaced.	18	N/A
1B-DP-SW-77	City of Plano	New Sidewalk	15th Pl	M Ave & N Ave	South	35	Sidewalk is in good condition but only 2 feet wide for two short segments on this block. These segments should be rebuilt.	19	N/A
1B-DP-RP-78	City of Plano	Repair	15th Pl	N Ave & O Ave	North	15	Sidewalk adjacent to apartments is in good condition, but is only 3' wide and includes 4" dropoffs at steps, so it should be rebuilt.	16	N/A
1B-DP-SW-79	City of Plano	New Sidewalk	E Ave	E 15th St & 14th St	West	250		18	N/A
1B-DP-SW-80	City of Plano	New Sidewalk	F Ave	E 15th St & 14th St	West	220	Utility pole and parking for Grandy's restaurant blocks sidewalk on north half of block.	16	N/A
1B-DP-SW-81	City of Plano	New Sidewalk	F Ave	E 15th St & 14th St	East	25	Underground utility boxes may require adjustment.	20	N/A
1B-DP-SW-82	City of Plano	New Sidewalk	F Ave	E 15th St & 14th St	East	40		18	N/A
1B-DP-SW-83	City of Plano	New Sidewalk	F Ave	E 15th St & 14th St	East	115	Right-angle parking for apartments would require connections to sidewalk between parking and building.	20	N/A

Half Mile Area Improvements Matrix

Downtown Plano Station

Opinion of Probable Constr. Cost = $1,388,500

Sidewalk & Shared Use Path Segments

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North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-SW-84	City of Plano	New Sidewalk	14th St	F Ave & G Ave	North	30		13	N/A
1B-DP-SW-85	City of Plano	New Sidewalk	14th St	F Ave & G Ave	North	220		21	N/A
1B-DP-SW-87	City of Plano	New Sidewalk	14th St	N Central Expy & F Ave	South	125		15	N/A
1B-DP-SW-88	City of Plano	New Sidewalk	F Ave	14th St & 13th/14th Connector	West	510	Utility poles, underground utilities, and trees present obstacles. Land currently undeveloped.	14	N/A
1B-DP-SW-89	City of Plano	New Sidewalk	F Ave	14th St & 13th/14th Connector	East	510	Utility poles, underground utilities, and trees present obstacles. Land currently undeveloped.	14	N/A
1B-DP-SW-90	City of Plano	New Sidewalk	14th St	F Ave & G Ave	South	160	Existing concrete is too narrow and sloped to be considered sidewalk, so it should be rebuilt.	15	N/A
1B-DP-SW-91	City of Plano	New Sidewalk	G Ave	E 15th St & 14th St	East	100		25	$ 34,900
1B-DP-SW-92	City of Plano	New Sidewalk	H Ave	E 15th St & 14th St	West	265	Chain link fence near south end of gap would need to be removed.	25	$ 14,300
1B-DP-SW-98	City of Plano	New Sidewalk	M Ave	E 15th St & 14th St	West	270		22	N/A
1B-DP-GR-99	City of Plano	Gap to Remain	E 15th St	O Ave & EastStudy Boundary	South	80	Right angle residential on-street parking for apartments does not provide space for future level sidewalk.	0	N/A
1B-DP-RP-100	City of Plano	Repair	O Ave	E 15th St & 14th St	East	10	Vertical elevation difference >2" between sidewalk panels requires short segment to be replaced	7	N/A
1B-DP-SW-101	City of Plano	New Sidewalk	F Ave	13th St & 12th St	West	325		19	N/A
1B-DP-SW-102	City of Plano	New Sidewalk	13th St	F Ave & G Ave	North	125		20	N/A
1B-DP-SW-103	City of Plano	New Sidewalk	13th St	F Ave & G Ave	South	130		20	N/A
1B-DP-SW-104	City of Plano	New Sidewalk	F Ave	13th St & 12th St	East	285		19	N/A
1B-DP-SW-105	City of Plano	New Sidewalk	F Ave	12th St & South Study Boundary	East	425		15	N/A
1B-DP-SW-106	City of Plano	New Sidewalk	F Ave	13th St & 12th St	East	385		20	N/A
1B-DP-SW-107	City of Plano	New Sidewalk	G Ave	13th/14th Connector & 13th St	East	120		21	N/A
1B-DP-SW-108	City of Plano	New Sidewalk	13th St	G Ave & H Ave	North	395		22	N/A
1B-DP-SW-109	City of Plano	New Sidewalk	13th St	F Ave & G Ave	South	115		21	N/A
1B-DP-SW-110	City of Plano	New Sidewalk	G Ave	13th St & 12th ST	West	345		20	N/A
1B-DP-SW-111	City of Plano	New Sidewalk	12th St	F Ave & G Ave	North	280		13	N/A
1B-DP-SW-112	City of Plano	New Sidewalk	12th St	F Ave & G Ave	South	280		12	N/A
1B-DP-SW-113	City of Plano	New Sidewalk	G Ave	12th St & South Study Boundary	West	580		17	N/A
1B-DP-SW-114	City of Plano	New Sidewalk	G Ave	13th St & 12th ST	East	345		22	N/A
1B-DP-SW-115	City of Plano	New Sidewalk	G Ave	12th St & South Study Boundary	East	110		20	N/A

Half Mile Area Improvements Matrix

Downtown Plano Station

Opinion of Probable Constr. Cost = $1,388,500

Sidewalk & Shared Use Path Segments

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
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North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-SW-116	City of Plano	New Sidewalk	G Ave	12th St & South Study Boundary	East	70		14	N/A
1B-DP-SW-117	City of Plano	New Sidewalk	13th St	G Ave & H Ave	South	250	Some short retaining walls will likely be needed to provide a level way for sidewalk along this segment.	24	$ 40,100
1B-DP-SW-118	City of Plano	New Sidewalk	12th St	G Ave & H Ave	North	230		21	N/A
1B-DP-SW-119	City of Plano	New Sidewalk	12th St	G Ave & H Ave	South	260		21	N/A
1B-DP-SW-120	City of Plano	New Sidewalk	H Ave	13th St & 12th St	West	350	Trees and short residential front yard setbacks may make constructing sidewalk challenging.	22	N/A
1B-DP-SW-121	City of Plano	New Sidewalk	H Ave	12th St & South Study Boundary	West	50		20	N/A
1B-DP-SW-122	City of Plano	New Sidewalk	H Ave	12th St & South Study Boundary	West	190		15	N/A
1B-DP-SW-123	City of Plano	New Sidewalk	H Ave	14th St & 13th St	East	285	Verizon pedestal and/or utility pole on southeast corner of H Ave and 12th Street would need to be relocated for sidewalk. Some mild slopes with large trees could require tree root damage.	18	N/A
1B-DP-SW-124	City of Plano	New Sidewalk	H Ave	13th St & South Study Boundary	East	590		21	N/A
1B-DP-GR-125	City of Plano	Gap to Remain	H Ave	13th St & South Study Boundary	East	500	Right-of-way for sidewalk not available due to utility poles and adjacent cemetery.	0	N/A
1B-DP-SW-126	City of Plano	New Sidewalk	13th St	H Ave & I Ave	North	205		27	$ 97,400
1B-DP-SW-127	City of Plano	New Sidewalk	13th St	H Ave & H Pl	South	215		24	$ 44,400
1B-DP-SW-128	City of Plano	New Sidewalk	H Pl	13th St & South Study Boundary	West	595		24	$ 240,300
1B-DP-SW-129	City of Plano	New Sidewalk	H Pl	13th St & 12th Pl	East	330		23	$ 68,700
1B-DP-SW-130	City of Plano	New Sidewalk	H Pl	12th Pl & South Study Boundary	East	230		16	N/A
1B-DP-SW-131	City of Plano	New Sidewalk	13th St	H Pl & I Ave	South	180		24	$ 42,500
1B-DP-SW-132	City of Plano	New Sidewalk	12th Pl	H Pl & I Ave	North	240		21	N/A
1B-DP-SW-133	City of Plano	New Sidewalk	12th Pl	H Pl & I Ave	South	235		22	N/A
1B-DP-SW-134	City of Plano	New Sidewalk	I Ave	12th Pl & 12th St	West	425		20	N/A
1B-DP-SW-135	City of Plano	New Sidewalk	I Ave	12th St & South Study Boundary	West	25		15	N/A
1B-DP-SW-136	City of Plano	New Sidewalk	I Ave	12th Pl & 12th St	East	460		19	N/A
1B-DP-SW-137	City of Plano	New Sidewalk	I Ave	12th St & South Study Boundary	East	15		10	N/A
1B-DP-SW-138	City of Plano	New Sidewalk	12th Pl	I Ave & Regional Veloweb	South	140		16	N/A

Half Mile Area Improvements Matrix

Downtown Plano Station

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Sidewalk & Shared Use Path Segments

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North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-SW-139	City of Plano	New Sidewalk	12th St	I Ave & J Ave	North	385		12	N/A
1B-DP-SW-141	City of Plano	New Sidewalk	J Ave	14th St & 12th St	East	555		21	N/A
1B-DP-SW-142	City of Plano	New Sidewalk	12th St	J Ave & K Ave	South	515	City of Plano reports that shared use path is being constructed as part of the Plano Transit Village Veloweb project.	11	N/A
1B-DP-SW-143	City of Plano	New Sidewalk	K Ave	14th St & 12th St	West	90	A City of Plano shared use path is planned for K Ave, including this section. The improvement cost indicated for this high-priority gap is for a short segment of shared use path to fill only the localized existing sidewalk gap.	23	$ 10,200
1B-DP-SW-145	City of Plano	New Sidewalk	Municipal Ave	14th St & 12th Pl	West	220		23	$ 57,200
1B-DP-RP-147	City of Plano	Repair	13th St	M Ave & N Ave	North	20	Several panels that have settled >2" around storm drain inlet need to be replaced.	18	N/A
1B-DP-RP-148	City of Plano	Repair	13th St	M Ave & N Ave	South	20	Several panels that have settled >2" around storm drain inlet need to be replaced.	13	N/A
1B-DP-SW-149	City of Plano	New Sidewalk	N Ave	14th St & 13th St	West	365	Utility poles, parking lot flush to curb without buffer may make sidewalk construction challenging.	19	N/A
1B-DP-SW-150	City of Plano	New Sidewalk	N Ave	13th St & South Study Boundary	West	240		8	N/A
1B-DP-GR-151	City of Plano	Gap to Remain	N Ave	14th St & South Study Boundary	East	570	Fences, utility poles, and business driveway configurations do not leave sufficient right-of-way for future sidewalk. Current land use does not generate significant pedestrian trips.	0	N/A
1B-DP-GR-153	City of Plano	Gap to Remain	L Ave	12th St & South Study Boundary	West	205	Utility poles, short residential front yard setbacks, and residential landscaping preclude likelihood of sidewalk being feasible on this street.	0	N/A
1B-DP-GR-154	City of Plano	Gap to Remain	L Ave	12th St & South Study Boundary	East	160	Utility poles, short residential front yard setbacks, and residential landscaping preclude likelihood of sidewalk being feasible on this street.	0	N/A
1B-DP-SW-155	City of Plano	New Sidewalk	12th Pl	I Ave & Regional Veloweb	North	225		16	N/A
1B-DP-VW-V02	City of Plano	Shared Use Path	DART Tracks	E 15th St & 14th St	West	455	City of Plano is evaluating options for this shared use path segment based on multiple, competing constraints.	36	N/A
1B-DP-VW-V03	City of Plano	Shared Use Path	DART Tracks	14th St & 12th Pl	West	750	City of Plano is evaluating options for this shared use path segment based on multiple, competing constraints.	22	N/A
1B-DP-VW-V05	City of Plano	Shared Use Path	DART Tracks	South Study Boundary & J Ave	North	790	City of Plano reports that shared use path is being constructed as part of the Plano Transit Village Veloweb project.	11	N/A
1B-DP-VW-V06	City of Plano	Shared Use Path	12th St	J Ave & K Ave	North	360	City of Plano reports that shared use path is being constructed as part of the Plano Transit Village Veloweb project.	13	N/A
Opinion of Probable Cost - City of Plano Subtotal									***$ 1,354,400***
1B-DP-VW-V01	DART	Shared Use Path	I Ave	North Study Boundary & 19th St	N/A	1120	Removal of several trees, along with regrading of some mild slopes next to the DART tracks, would be needed to build shared use path along this Regional Veloweb segment.	16	N/A

Half Mile Area Improvements Matrix

Downtown Plano Station

Opinion of Probable Constr. Cost = $1,388,500

Sidewalk & Shared Use Path Segments

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
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North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-VW-V01	DART	Shared Use Path	I Ave	North Study Boundary & 19th St	N/A	1120	Removal of several trees, along with regrading of some mild slopes next to the DART tracks, would be needed to build shared use path along this Regional Veloweb segment.	16	N/A
1B-DP-VW-V04	DART	Shared Use Path	DART Tracks	12th Pl & 12th St	West/ East	460	Veloweb to be part of Cottonbelt DART Rail extension project. Cottonbelt line ridership and future 12th Street Station not incorporated in analysis.	18	N/A
1B-DP-VW-V07	DART	Shared Use Path	DART Tracks	K Ave & Municipal Ave	South	450	Veloweb to be part of Cottonbelt DART Rail extension project. Cottonbelt line ridership and future 12th Street Station not incorporated in analysis.	11	N/A
1B-DP-VW-V08	DART	Shared Use Path	DART Tracks	Municipal Ave & N Ave	South	1075	Veloweb to be part of Cottonbelt DART Rail extension project. Cottonbelt line ridership and future 12th Street Station not incorporated in analysis.	14	N/A
1B-DP-VW-V09	DART	Shared Use Path	DART Tracks	N Ave & South Study Boundary	North	170	Veloweb to be part of Cottonbelt DART Rail extension project. Cottonbelt line ridership and future 12th Street Station not incorporated in analysis.	6	N/A
1B-DP-VW-V10	DART	Shared Use Path	DART Tracks	South Study Boundary & DART Tracks	Southeast	835	Veloweb to be part of Cottonbelt DART Rail extension project. Cottonbelt line ridership and future 12th Street Station not incorporated in analysis.	11	N/A
Opinion of Probable Cost - DART Subtotal									***$ -***
1B-DP-SW-32	TxDOT	New Sidewalk	N Central Expy	West Study Boundary & E 16th St	East	255	Slope, utility poles, and underground utilities in narrow grass strip between frontage road and Quality Inn parking lot would make sidewalk construction challenging.	12	N/A
1B-DP-SW-48	TxDOT	New Sidewalk	N Central Expy	E 16th St & E 15th St	East	355		23	$ 34,100
1B-DP-SW-86	TxDOT	New Sidewalk	N Central Expy	14th St & 13th/14th Connector	East	220		18	N/A
Opinion of Probable Cost - TxDOT Subtotal									***$ 34,100***
Opinion of Probable Cost - Total for All Sidewalk Recommendations in Half Mile Area									***$ 1,388,500***

Half Mile Area Improvements Matrix

Downtown Plano Station

Opinion of Probable Constr. Cost = $538,600

Improvement Code Legend: **ID:** 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Crosswalk Segments

ID	Owner	Improvement Type	Street Name	At/Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-CW-46	City of Plano	New Crosswalk	18th St	I Ave	West	60	Add crosswalk signing, markings, and lighting. Implement road diet from four lanes to two to construct median refuge island for Veloweb crossing. Road diet recently implemented two blocks to the west to make curb bump-outs and on-street parking.	31	$ 60,300
1B-DP-CW-58	City of Plano	New Crosswalk	15th St	I Ave	East	60	Implement road diet to add median refuge island. Only one lane of westbound traffic with median island is present one block to east, so a similar cross section can be applied here. Add signs, markings, lighting, and pushbutton-activated RRFB's to highlight transition from 4 to 2 lane section. Add advance yield line and "Yield Here to Pedestrians" signs for eastbound direction only (2 lane approach).	28	$ 72,300
1B-DP-CW-59	City of Plano	New Crosswalk	E 15th St	DART Tracks	West	65	Add crosswalk & cut-through ramps at existing median island to provide accessible pedestrian refuge area. Add advance yield line and "Yield Here to Pedestrians" signs for eastbound direction only (2 lane approach). City of Plano reports construction of this segment as part of CIP project 6993.	46	N/A
1B-DP-CW-60	City of Plano	New Crosswalk	E 15th St	J Ave & K Ave	Midblock	60	Add pavement markings and pedestrian ramps to existing signed midblock crosswalk.	32	$ 21,200
1B-DP-CW-61	City of Plano	New Crosswalk	K Ave	15th Place	North	40	Provide advance yield line and "Yield Here to Pedestrians" signing upstream of this existing, unsignalized crosswalk.	35	$ 3,900
1B-DP-CW-63	City of Plano	New Crosswalk	Municipal Ave	L Ave	South	45	Add sidewalk west of Municipal Ave to connect to other sidewalk on Plano Municipal Center property. Advance and overhead pedestrian flashing lights already in place at Municipal Ave crossing. Add crosswalk markings, signing, and RRFB's at crosswalk location. Add sidewalk on south and west sides of L Ave on east side of Municipal Ave. Would provide more direct connection to station for apartments on northeast side of Municipal Ave. City of Plano reports that crosswalk improvements are in progress but that sidewalk improvements east of Municipal Ave are not included in this project.	43	N/A
1B-DP-CW-93	City of Plano	New Crosswalk	14th St	I Ave	West	60	Install crosswalk signing, markings, and lighting with pedestrian hybrid beacon. Evaluation and integration with other signals needed.	23	$ 96,200
1B-DP-CW-94	City of Plano	New Crosswalk	14th St	I Ave	East	65	Install crosswalk signing, markings, and lighting with pedestrian hybrid beacon. Evaluation and integration with other signals needed.	23	$ 95,500

Half Mile Area Improvements Matrix

Downtown Plano Station

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North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

Crosswalk Segments

ID	Owner	Improvement Type	Street Name	At/Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-CW-95	City of Plano	New Crosswalk	14th St	DART Tracks	West	70	Install traffic signal for future Veloweb crossing that has existing pedestrian demand. Add a traffic signal, signs, markings, and lighting. A pedestrian hybrid beacon (PHB) was considered for this location, but potential exists for confusion between flashing red lights associated with a PHB and the flashing red lights associated with the rail crossing at the DART tracks. Evaluation and integration with other signals needed.	32	N/A
1B-DP-CW-96	City of Plano	New Crosswalk	14th St	J Ave	East	50	Install traffic signal for future Veloweb crossing that has existing pedestrian demand. Add a traffic signal, signs, markings, and lighting. A pedestrian hybrid beacon (PHB) was considered for this location, but potential exists for confusion between flashing red lights associated with a PHB and the flashing red lights associated with the rail crossing at the DART tracks. Evaluation and integration with other signals needed.	30	$ 183,500
1B-DP-CW-97	City of Plano	New Crosswalk	K Ave	E 15th St & 14th St	N/A	50	Provide advance yield line and "Yield Here to Pedestrians" signing upstream of this existing, unsignalized crosswalk.	39	$ 5,700
1B-DP-CW-140	City of Plano	New Crosswalk	12th St	I Ave & DART bridge	N/A	40	Add crosswalk markings, signs and lighting for future Veloweb crossing across this low-volume street. City of Plano reports this will be constructed as part of Plano Transit Village Veloweb project.	17	N/A
1B-DP-CW-144	City of Plano	New Crosswalk	K Ave	12th St & DART Tracks	North	50	Install traffic signal for future Veloweb crossing. Add a traffic signal, signs, markings, and lighting. A pedestrian hybrid beacon (PHB) was considered for this location, but potential exists fo rconfusion between flashing red lights associated with a PHB and the floashing red lights accociated with the rail crossing at the railroad (future DART Cottonbelt Line) tracks. City of Plano reports this will be constructed as part of Plano Transit Village Veloweb project.	15	N/A
1B-DP-CW-146	City of Plano	New Crosswalk	Municipal Ave	12th Pl & DART Tracks	North	40	Install traffic signal for future Veloweb crossing. Add a traffic signal, signs, markings, and lighting. A pedestrian hybrid beacon (PHB) was considered for this location, but potential exists for confusion between flashing red lights associated with a PHB and the flashing red lights accociated with the rail crossing at the railroad (future DART Cottonbelt Line) tracks. City of Plano reports this will be constructed as part of Plano Transit Village Veloweb project.	20	N/A
1B-DP-CW-152	City of Plano	New Crosswalk	N Ave	13th St & DART Tracks	N/A	40		8	N/A

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North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

Crosswalk Segments

ID	Owner	Improvement Type	Street Name	At/Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1B-DP-CW-156	City of Plano	New Crosswalk	I Ave	19th St	South	50	Add new signed, marked, and lighted crosswalk across I Ave where future Regional Veloweb shared use path transitions from wider DART right-of-way adjacent to tracks north of 19th St to west side of I Ave, south of 19th St, where DART right-of-way narrows.	18	N/A

Opinion of Probable Cost - City of Plano Subtotal..... $ 538,600

Opinion of Probable Cost - Total for All Crosswalk Recommendations in Half Mile Area..... $ 538,600

Half Mile Area Improvements Matrix

CityLine Bush Station

Opinion of Probable Constr. Cost = $1,495,600

Sidewalk & Shared Use Path Segments

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North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1C-CB-RP-001	City of Plano	Sidewalk Repair	Taylor Dr	E Plano Pkwy & F Ave	North	15	Settlement has created significant trip hazard at driveway ramp.	15	N/A
1C-CB-RP-002	City of Plano	Sidewalk Repair	Taylor Dr	E Plano Pkwy & F Ave	North	20	Damage near water meter creates significant trip hazard.	9	N/A
1C-CB-RP-003	City of Plano	Sidewalk Repair	F Ave	North Study Boundary & Taylor Dr	West	20	Settlement has created trip hazard with >2" drop.	8	N/A
1C-CB-SW-004	City of Plano	New Sidewalk	E Plano Pkwy	North Study Boundary & Taylor Dr	South	100		13	N/A
1C-CB-SW-005	City of Plano	New Sidewalk	E Plano Pkwy	North Study Boundary & Taylor Dr	South	150		20	N/A
1C-CB-SW-006	City of Plano	New Sidewalk	E Plano Pkwy	North Study Boundary & Taylor Dr	South	100		21	N/A
1C-CB-SW-007	City of Plano	New Sidewalk	Taylor Dr	E Plano Pkwy & F Ave	South	315		13	N/A
1C-CB-SW-008	City of Plano	New Sidewalk	Taylor Dr	E Plano Pkwy & F Ave	South	365		9	N/A
1C-CB-SW-009	City of Plano	New Sidewalk	E Plano Pkwy	Taylor Dr & F Ave	North	725	Short retaining walls, tree removal would be needed to construct sidewalk. A City of Plano local shared use path is planned for this segment.	25	$ 107,900
1C-CB-SW-010	City of Plano	New Sidewalk	F Ave	Taylor Dr & E Plano Pkwy	West	480	Tree removal would be needed to construct sidewalk.	21	N/A
1C-CB-SW-012	City of Plano	New Sidewalk	F Ave	North Study Boundary & E Plano Pkwy	East	630	Short retaining walls, tree removal would be needed to construct sidewalk. UPS mailbox may also need to be relocated.	21	N/A
1C-CB-SW-016	City of Plano	New Sidewalk	E Plano Pkwy	F Ave & DART Tracks	North	420	Tree root damage likely if sidewalk installed on this segment. A City of Plano local shared use path is planned for this segment.	25	$ 62,600
1C-CB-SW-018	City of Plano	New Sidewalk	E Plano Pkwy	DART Tracks & J Pl	North	10	Sidewalk would require tree removal, provision of parking stops in adjacent parking lot to prevent parked cars from encroaching in narrow sidewalk space. A City of Plano local shared use path is planned for this segment.	19	N/A
1C-CB-SW-019	City of Plano	New Sidewalk	E Plano Pkwy	DART Tracks & J Pl	North	165	A City of Plano local shared use path is planned for this segment.	24	$ 108,900
1C-CB-SW-020	City of Plano	New Sidewalk	J Pl	North Study Boundary & E Plano Pkwy	East	160		8	N/A
1C-CB-SW-021	City of Plano	New Sidewalk	J Pl	North Study Boundary & E Plano Pkwy	East	165		10	N/A
1C-CB-SW-022	City of Plano	New Sidewalk	J Pl	North Study Boundary & E Plano Pkwy	East	180		14	N/A
1C-CB-SW-023	City of Plano	New Sidewalk	E Plano Pkwy	J Pl & K Ave	North	160	A City of Plano local shared use path is planned for this segment.	23	$ 165,100
1C-CB-SW-025	City of Plano	New Sidewalk	E Plano Pkwy	K Ave & North Study Boundary	North	510	Tree removal and mid-size retaining wall would be needed for sidewalk near K Ave intersection. Tree root damage likely elsewhere along segment.	21	N/A
1C-CB-SW-029	City of Plano	New Sidewalk	Executive Dr	N Central Expy & Crawford Rd	South	720		20	N/A
1C-CB-SW-032	City of Plano	New Sidewalk	Crawford Rd	Executive Dr & N President George Bush Hwy	West	120		25	$ 10,800

Half Mile Area Improvements Matrix

CityLine Bush Station

Opinion of Probable Constr. Cost = $1,495,600

Sidewalk & Shared Use Path Segments

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North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1C-CB-SW-035	City of Plano	New Sidewalk	E Plano Pkwy	Executive Dr & J Pl	South	255	Sidewalk construction would require tree removal, fill material, retaining wall near business parking lot just east of DART bridge.	24	$ 61,100
1C-CB-SW-037	City of Plano	New Sidewalk	J Pl	E Plano Pkwy & N President George Bush Hwy	East	810	City of Plano reports a portion of this is under construction with new development - see SP2018-001	29	$ 5,800
1C-CB-SW-038	City of Plano	New Sidewalk	K Ave	E Plano Pkwy & N President George Bush Hwy	West	815	Worn path in grass on this segment indicates existing pedestrian demand. City of Plano reports a portion of this is under construction with new development - see SP2018-001. Also, a City of Plano local shared use path is planned for this segment.	23	$ 28,300
1C-CB-SW-040	City of Plano	New Sidewalk	K Ave	E Plano Pkwy & N President George Bush Hwy	East	280		28	$ 34,000
1C-CB-SW-041	City of Plano	New Sidewalk	E Plano Pkwy	K Ave & North Study Boundary	South	195		20	N/A
1C-CB-SP-095	City of Plano	New Shared Use Path	N/A	Central Trail & J Pl	N/A	535	A City of Plano local shared use path is planned for this alignment, set back to the north of the President George Bush Turnpike.	22	N/A
1C-CB-SP-097	City of Plano	New Shared Use Path	N/A	J Pl & K Ave	N/A	130	A City of Plano local shared use path is planned for this alignment, set back to the north of the President George Bush Turnpike.	22	N/A
1C-CB-SP-098	City of Plano	New Shared Use Path	N/A	K Ave & East Study Boundary	N/A	1355	A City of Plano local shared use path is planned for this alignment, set back to the north of the President George Bush Turnpike.	15	N/A
Opinion of Probable Cost - City of Plano Subtotal									***$ 584,500***
1C-CB-SP-064	City of Richardson	Shared Use Path	N Central Expy	Connector to Cotton Belt Line Regional Veloweb	West	425	Slopes and tree clearing will increase cost for shared use path for this connection.	9	N/A
1C-CB-SP-065	City of Richardson	Shared Use Path	N Central Expy	Connector to Spring Creek Trail Regional Veloweb	West	505	Slopes and tree clearing will increase cost for shared use path for this connection.	5	N/A
1C-CB-SP-067	City of Richardson	Shared Use Path	N Central Expy	Connector to Cotton Belt Line Regional Veloweb	East	200	Slopes and tree clearing will increase cost for shared use path for this connection.	16	N/A
1C-CB-SW-068	City of Richardson	New Sidewalk	W Cityline Dr	N Central Expy & Routh West Dr	North	540	City of Richardson reports sidewalk construction anticipated as part of upcoming development.	23	N/A
1C-CB-SW-069	City of Richardson	New Sidewalk	Red Moon Way	E President George Bush Hwy & W Cityline Dr	West	660	City of Richardson reports sidewalk construction anticipated as part of upcoming development.	25	N/A
1C-CB-GR-070	City of Richardson	Gap to Remain	Pipeline Dr	Topridge Dr & West Routh Creek Pkwy	North	100	New segment of soft surface trail with benches is an existing break in the new sidewalk south of the apartment complex park. This appears to have been by design, and a parallel hard surface sidewalk is available on the south side of Pipeline Dr.	0	N/A
1C-CB-SW-074	City of Richardson	New Sidewalk	W Cityline Dr	N Central Expy & Routh West Dr	South	545	Sidewalk construction anticipated as part of upcoming development.	23	N/A

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1C-CB-SW-075	City of Richardson	New Sidewalk	Red Moon Way	W Cityline Dr & E Renner Rd	West	1350	Sidewalk construction anticipated as part of upcoming development.	30	N/A
1C-CB-SW-077	City of Richardson	New Sidewalk	Red Moon Way	W Cityline Dr & E Renner Rd	East	1335	Existing soft surface trail already present here. Anticipated sidewalk construction as part of upcoming development.	22	N/A
1C-CB-SW-078	City of Richardson	New Sidewalk	W Cityline Dr	N Central Expy & Routh West Dr	South	530	Sidewalk construction anticipated as part of upcoming development.	26	N/A
1C-CB-SW-079	City of Richardson	New Sidewalk	W Cityline Dr	N Central Expy & Routh West Dr	South	20	Sidewalk construction anticipated as part of upcoming development.	37	N/A
1C-CB-GR-080	City of Richardson	Gap to Remain	Routh West Dr	W Renner Rd & South Study Boundary	West	570	Bridge over Spring Creek does not have sufficient width for sidewalk. West side of Routh Creek Parkway in this area is adjacent to only DART tracks and an office building that has alternative pedestrian access via Renner Road.	0	N/A
1C-CB-GR-081	City of Richardson	Gap to Remain	Routh West Dr	Peloton Dr & W Renner Rd	East	100	A crosswalk across the south leg of the intersection would cause unnecessary disruption to landscaping and the existing boardwalk portion of the sidewalk on the west side of Routh Creek Parkway. The north crosswalk should be sufficient for serving pedestrian demand since land uses on the west side are primarily recreational.	0	N/A
1C-CB-SW-082	City of Richardson	New Sidewalk	Routh West Dr	Hill St & Cityline Dr	East	330	Sidewalk construction adjacent to informal temporary park anticipated as part of master-planned development.	24	N/A
1C-CB-SW-083	City of Richardson	New Sidewalk	Hill St	Routh West Dr & Newton St	South	405	Sidewalk construction adjacent to informal temporary park anticipated as part of master-planned development.	32	N/A
1C-CB-SW-084	City of Richardson	New Sidewalk	Cityline Dr	Routh West Dr & N Plano Rd	North	465	Sidewalk construction adjacent to informal temporary park anticipated as part of master-planned development.	22	N/A
1C-CB-SW-085	City of Richardson	New Sidewalk	Keffler St	Hill St & Cityline Dr	West	340	Sidewalk construction adjacent to informal temporary park anticipated as part of master-planned development.	29	N/A
1C-CB-GR-086	City of Richardson	Gap to Remain	Cityline Dr	Keffler St	West	75	Crosswalk would require elimination of on-street parking spaces on south side of street. Alternative path available via west leg crosswalk.	0	N/A
1C-CB-GR-089	City of Richardson	Gap to Remain	Heise Way	N Plano Rd & Wilshire Way	North	640	Heise Way is a fire lane/service drive/alley for development on both sides of the pavement, so sidewalk is not required or desirable.	0	N/A
1C-CB-GR-090	City of Richardson	Gap to Remain	Heise Way	N Plano Rd & Wilshire Way	South	575	Heise Way is a fire lane/service drive/alley for development on both sides of the pavement, so sidewalk is not required or desirable.	0	N/A
1C-CB-SW-091	City of Richardson	New Sidewalk	Wilshire Way	President George Bush Hwy EB Frontage Rd & Heise Way	West	305	Sidewalk construction anticipated as part of upcoming development.	17	N/A
1C-CB-SW-093	City of Richardson	New Sidewalk	Wilshire Way	President George Bush Hwy EB Frontage Rd & Cityline Dr	East	1380	A portion of this section will be completed as part of multi-family building under construction.	17	N/A
1C-CB-SW-094	City of Richardson	New Sidewalk	Cityline Dr	Wilshilre Way & East Study Boundary	North	725	Existing soft surface trail already present here. Anticipated sidewalk construction as part of upcoming development.	10	N/A

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North Central Texas Council of Governments
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Opinion of Probable Cost - City of Richardson Subtotal									***$ -***
1C-CB-SW-046	Cities of Plano/Richardson	New Sidewalk	K Ave	N President George Bush Hwy	West	290	Lighting under PGBT bridges should be installed along with sidewalk.	32	$ 61,500
1C-CB-SW-047	Cities of Plano/Richardson	New Sidewalk	K Ave	N President George Bush Hwy & E President George Bush Hwy	East	295	Lighting under PGBT bridges should be installed along with sidewalk.	25	$ 49,000
1C-CB-SW-056	DART/Cities of Plano/Richardson	New Sidewalk	Crawford Rd/Topridge Dr	President George Bush Hwy EB & WB Frontage Rds	East	360	Of the total $39,400 cost for this improvement, 2/3 as listed at right is assumed attributable to the Cities of Plano & Richardson, while 1/3 is assumed attributable to DART (see DART cost matrix). See station area improvements 1C-CB-ST-08 for more information.	38	$ 26,300
Opinion of Probable Cost - Cities of Plano/Richardson Subtotal									***$ 136,800***
1C-CB-SW-044	DART/Private Property	New Sidewalk	Station Platform Connector	Routh East Dr & State St	South	100	Coordinate with the adjacent property owner to construct a short segment of sidewalk for more direct travel between the southern crosswalk to the train platform and the south sidewalk along State St. A "goat trail" cuts the corner where the existing sidewalk is offset from the crosswalk, indicating existing pedestrian demand. See DART Station Area improvement 1C-CB-ST-06 for more information. Cost assumed attributable to City of Richardson if negotiation with private property owner is successful since improvement is located just off DART station property.	28	$ 4,500
1C-CB-SW-071	DART/Private Property	New Sidewalk	N/A	E President George Bush Hwy & Pipeline Dr	N/A	120	Worn path in grass indicates existing pedestrian demand for more direct path between DART rail platform and bus loop. Sidewalk would be on private property between volleyball courts and dog run on north side of Pipeline Dr. See DART Station Area improvement 1C-CB-ST-03 for more information. Cost assumed attributable to City of Richardson if negotiation with private property owner is successful since improvement is located just off DART station property.	41	$ 6,200
Opinion of Probable Cost - DART/Private Property Subtotal (assumed City of Richardson Cost)									***$ 10,700***
1C-CB-SW-072	DART	New Sidewalk	West Routh Creek	Pipeline Dr & Cityline Dr	East	270	As Routh West Drive will be replaced by the upcoming Cotton Belt/Silver Line station platform, this segment will be part of that platform design.	38	N/A
1C-CB-SW-073	DART	New Sidewalk	Routh Creek Pkwy	Pipeline Dr & Cityline Dr	West	165	City of Richardson reports connectivity could be considered in conjunction with development of parcel to the south.	39	$ 22,000
1C-CB-VW-V01	DART	Shared Use Path	Regional Veloweb	West Study Boundary	N/A	1105		6	N/A
1C-CB-VW-V02	DART	Shared Use Path	Regional Veloweb	North Study Boundary & E Plano Pkwy	East	655	City of Plano reports this segment is under construction as part of the Plano Transit Village Veloweb project.	11	N/A
1C-CB-VW-V03	DART	Shared Use Path	Regional Veloweb	E Plano Pkwy & N President George Bush Hwy	East	1030	City of Plano reports this segment is under construction as part of the Plano Transit Village Veloweb project.	33	N/A

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1C-CB-VW-V04	DART	Shared Use Path	Regional Veloweb	President George Bush Hwy	N/A	285	City of Plano to coordinate this segment as part of Cotton Belt Trail.	41	N/A
1C-CB-VW-V05	DART	Shared Use Path	Regional Veloweb	E President George Bush Hwy & Cityline Dr	East	675	City of Richardson reports this segment is under design as part of the Plano Transit Village Veloweb project.	20	N/A
1C-CB-VW-V06	DART	Shared Use Path	Regional Veloweb	West Study Boundary & DART Tracks	N/A	3445	Veloweb trail to be built as part of Cotton Belt DART rail expansion.	37	N/A
1C-CB-VW-V07	DART	Shared Use Path	Regional Veloweb	W Cityline Dr & Hill St	West	310	Veloweb trail to be built as part of Cotton Belt DART rail expansion.	25	N/A
Opinion of Probable Cost - DART Subtotal									***$ 22,000***
1C-CB-SW-026	TxDOT	New Sidewalk	N Central Expy	North Study Boundary & WB On Ramp	West	1610	Some tree removal may be needed near north part of segment to provide adequate sidewalk offset from U.S. 75 frontage road. Short retaining walls may be needed to level ground for sidewalk in several places, particularly under flyover ramps to westbound PGBT.	17	N/A
1C-CB-SW-027	TxDOT	New Sidewalk	N Central Expy	North Study Boundary & Executive Dr	East	1095	Utility pole and low wall at north study boundary (right turn to Plano Pkwy) would need to be relocated to make room for sidewalk. Retaining walls and large guide sign relocation likely needed farther south.	27	$ 116,500
1C-CB-SW-028	TxDOT	New Sidewalk	N Central Expy	Executive Dr & N President George Bush Hwy	West	165		20	N/A
1C-CB-SW-030	TxDOT	New Sidewalk	N President George Bush Hwy	N Central Expy & Crawford Rd	North	705		24	$ 38,300
1C-CB-SW-036	TxDOT	New Sidewalk	N President George Bush Hwy	DART Tracks & J Pl	North	50		29	$ 5,000
1C-CB-SW-048	TxDOT	New Sidewalk	N President George Bush Hwy	N Central Expy & Crawford Rd	South	630		27	$ 39,100
1C-CB-SW-050	TxDOT	New Sidewalk	N President George Bush Hwy	Crawford Rd & DART Tracks	South	660		31	$ 40,000
1C-CB-SW-051	TxDOT	New Sidewalk	President George Bush Hwy WB Frontage Rd	DART Tracks & K Ave	South	825	New sidewalk on north side of DART parking lot would include crosswalk across U-turn lane at K Ave/N Plano Rd signal.	35	$ 201,400
1C-CB-SW-052	TxDOT	New Sidewalk	N President George Bush Hwy	DART Tracks & K Ave	North	760	Worn path in grass on this segment indicates existing pedestrian demand. City of Plano reports a portion of this segment is under construction with new development - see SP2018-001.	34	$ 48,100
1C-CB-GR-053	TxDOT	Gap to Remain	N President George Bush Hwy	K Ave	South	110	Crosswalks on inside legs of diamond interchange would not serve any demand between pedestrian generators and would interfere unnecessarily with vehicular traffic.	0	N/A
1C-CB-SW-054	TxDOT	New Sidewalk	N President George Bush Hwy	K Ave & East Study Boundary	North	1440		25	$ 78,600

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CityLine Bush Station

Opinion of Probable Constr. Cost = $1,495,600

Sidewalk & Shared Use Path Segments

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
01 ← Improvement Number (matches 1 on Map)
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair GR=Gap to Remain)

North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1C-CB-SW-055	TxDOT	New Sidewalk	N Central Expy	N President George Bush Hwy & E President George Bush Hwy	East	525		20	N/A
1C-CB-SW-057	TxDOT	New Sidewalk	E President George Bush Hwy	N Central Expy & Topridge Dr	North	360		25	N/A
1C-CB-SW-058	TxDOT	New Sidewalk	N Central Expy	E President George Bush Hwy & W Cityline Dr	East	55	City of Richardson reports sidewalk construction anticipated as part of upcoming development.	23	N/A
1C-CB-SW-060	TxDOT	New Sidewalk	E President George Bush Hwy	Routh East Dr & Routh West Dr	North	70	Track crossing would add expense to this short sidewalk segment and may not be necessary since pedestrian trips between the two parking lots on either side of the DART tracks are unlikely.	34	$ 162,100
1C-CB-SW-061	TxDOT	New Sidewalk	E President George Bush Hwy	Routh East Dr & N Plano Rd	North	65	New sidewalk would connect crosswalk across U-turn lane with existing sidewalk for DART parking lot.	25	$ 9,300
1C-CB-GR-062	TxDOT	Gap to Remain	E President George Bush Hwy	K Ave	South	115	Crosswalks on inside legs of diamond interchange would not serve any demand between pedestrian generators and would interfere unnecessarily with vehicular traffic.	0	N/A
1C-CB-SP-063	TxDOT	Shared Use Path	N Central Expy	SB On Ramp from PGBT & South Study Boundary	West	2095	Sidewalk construction may cause drainage impacts near dog park entrance. Tree and shrub removal will be needed for sidewalk south of dog park. Bridge over Spring Creek would be needed, since no space for sidewalk exists on U.S. 75 southbound frontage road bridge over the creek.	19	N/A
1C-CB-SP-066	TxDOT	Shared Use Path	N Central Expy	E Renner Rd & DART Tacks	East	3310	Bridge over Spring Creek will be built as part of currently funded project, since no space for sidewalk exists on U.S. 75 northbound frontage road bridge over the creek.	22	N/A
1C-CB-GR-076	TxDOT	Gap to Remain	N Central Expy	W Renner Rd & South Study Boundary	East	150	Access provided via the Spring Creek Trail.	0	N/A
1C-CB-SP-087	TxDOT	Shared Use Path	President George Bush Hwy EB Frontage Rd	N Plano Rd & Wilshire Way	South	865	Shared use path construction anticipated as part of upcoming development.	24	N/A
1C-CB-SP-088	TxDOT	Shared Use Path	President George Bush Hwy EB Frontage Rd	Wilshire Way & East Study Boundary	South	740	Shared use path construction anticipated as part of upcoming development.	16	N/A

Opinion of Probable Cost - TxDOT Subtotal..... $ 738,400

Half Mile Area Improvements Matrix

CityLine Bush Station

Opinion of Probable Constr. Cost = $1,495,600

Sidewalk & Shared Use Path Segments

Improvement Code Legend: ID: 1A-PR-SW-01

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North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

ID	Owner	Improvement Type	Street Name	Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1C-CB-SW-042	TxDOT/DART/City of Plano	New Sidewalk	Crawford Rd	President George Bush Hwy & EB & WB Frontage Rds	West	45	New segment of sidewalk would connect from crosswalk to existing sidewalk for DART parking lot under PGBT bridges. Provide pedestrian hybrid beacon with advance "Yield Here to Pedestrians" signing for crossing PGBT westbound frontage road. Evaluation and integration with other signals needed. Of the total $4,800 cost for this improvement, 2/3 as listed at right is assumed attributable to TxDOT and/or City of Plano, with the remaining 1/3 assumed attributable to DART. See station area improvement 1C-CB-ST-07 in the DART cost matrix, and half-mile area improvement 1C-CB-CW-042 in the half-mile area crosswalk matrix for more details.	29	$ 3,200

Opinion of Probable Cost - Mixed Ownership Subtotal..... $ 3,200

Opinion of Probable Cost - Total for All Sidewalk Recommendations in Half Mile Area..... $ 1,495,600

Half Mile Area Improvements Matrix

CityLine Bush Station

Opinion of Probable Constr. Cost = $320,000

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North Central Texas Council of Governments

DART Red & Blue Line Corridors Last Mile Connections

Crosswalk Segments

ID	Owner	Improvement Type	Street Name	At/Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1C-CB-CW-011	City of Plano	New Crosswalk	E Plano Pkwy	Executive Dr	West	105	Provide marked crosswalks, pedestrian ramps, and countdown pedestrian signal heads. City of Plano reports this work is part of CIP project #7063.	26	N/A
1C-CB-CW-013	City of Plano	New Crosswalk	E Plano Pkwy	F Ave	East	105	Provide marked crosswalks, pedestrian ramps, and countdown pedestrian signal heads. City of Plano reports this work is part of CIP project #7063.	25	N/A
1C-CB-CW-014	City of Plano	New Crosswalk	F Ave	E Plano Pkwy	North	55	Provide marked crosswalks, pedestrian ramps, and countdown pedestrian signal heads. City of Plano reports this work is part of CIP project #7063.	19	N/A
1C-CB-CW-015	City of Plano	New Crosswalk	Executive Dr	E Plano Pkwy	South	50	Provide marked crosswalks and countdown pedestrian signal heads. City of Plano reports this work is part of CIP project #7063.	30	N/A
1C-CB-CW-017	City of Plano	New Crosswalk	E Plano Pkwy	DART Tracks	East	95	Need for crosswalk contingent on construction of Regional Veloweb shared use path. City of Plano reports this is being constructed as part of the Plano Transit Village Veloweb project. City is exploring a trail bridge alternative as part of the Cotton Belt project.	26	N/A
1C-CB-CW-024	City of Plano	New Crosswalk	E Plano Pkwy	K Ave	West	105	Provide marked crosswalks, pedestrian ramps, and countdown pedestrian signal heads.	17	N/A
1C-CB-CW-031	City of Plano	New Crosswalk	Executive Dr	Crawford Rd	West	60	Provide signed & marked crosswalk across Executive Dr with advance "Yield Here to Pedestrians" signing. Consider road diet for median refuge island.	30	$ 29,400
1C-CB-CW-033	City of Plano	New Crosswalk	Executive Dr	Crawford Rd	East	60	Provide signed & marked crosswalk across Executive Dr with advance "Yield Here to Pedestrians" signing. Consider road diet for median refuge island.	22	N/A
1C-CB-CW-039	City of Plano	New Crosswalk	K Ave	E Plano Pkwy	South	105	Provide marked crosswalks, pedestrian ramps, and countdown pedestrian signal heads.	23	$ 36,100
Opinion of Probable Cost - City of Plano Subtotal									***$ 65,500***
1C-CB-CW-092	City of Richardson	New Crosswalk	Cityline Dr	Wilshire Way	West	95	Ramps and median cut-through need to be built for crosswalk	18	N/A
Opinion of Probable Cost - City of Richardson Subtotal									***$ -***
1C-CB-CW-045	TxDOT	New Crosswalk	Routh West Dr	N President George Bush Hwy	East	90	Install traffic signal for future Veloweb crossing that has existing pedestrian demand. Add a traffic signal, signs, markings, and lighting. A pedestrian hybrid beacon (PHB) was considered for this location, but potential exists for confusion between flashing red lights associated with a PHB and the flashing red lights associated with the rail crossing at the DART tracks. Evaluation and integration with other signals needed. This improvement is under construction in conjunction with DART's Silver Line project.	35	N/A

Half Mile Area Improvements Matrix

CityLine Bush Station

Opinion of Probable Constr. Cost = $320,000

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North Central Texas Council of Governments
DART Red & Blue Line Corridors Last Mile Connections

Crosswalk Segments

ID	Owner	Improvement Type	Street Name	At/Between	Side of Street	Length (ft)	Notes	Priority Score	Opinion of Probable Cost
1C-CB-CW-049	TxDOT	New Crosswalk	N President George Bush Hwy	Crawford Rd	South	60		29	$ 5,200
1C-CB-CW-051	TxDOT	New Crosswalk	President George Bush Hwy WB Frontage Rd	DART Tracks & K Ave	South	50	New sidewalk on north side of DART parking lot would include crosswalk across U-turn lane at K Ave/N Plano Rd signal.	63	$ 5,100
1C-CB-CW-061	TxDOT	New Crosswalk	E President George Bush Hwy	Routh East Dr & N Plano Rd	North	35	New sidewalk would connect crosswalk across U-turn lane with existing sidewalk for DART parking lot.	40	$ 3,600
Opinion of Probable Cost - TxDOT Subtotal									***$ 13,900***
1C-CB-CW-042	TxDOT/DART/ City of Plano	New Crosswalk	Crawford Rd	President George Bush Hwy & EB & WB Frontage Rds	West	65	New segment of sidewalk would connect from crosswalk to existing sidewalk for DART parking lot under PGBT bridges. Provide pedestrian hybrid beacon with advance "Yield Here to Pedestrians" signing for crossing PGBT westbound frontage road. Of the total $92,400 cost for this improvement, 2/3 as listed at right is assumed attributable to TxDOT and/or City of Plano, with the remaining 1/3 assumed attributable to DART (see DART cost matrix).	44	$ 61,600
1C-CB-CW-043	TxDOT/DART/ City of Plano	New Crosswalk	N President George Bush Hwy	Crawford Rd	East	70	Provide pedestrian hybrid beacon with advance "Yield Here to Pedestrians" signing for crossing PGBT westbound frontage road. Evaluation and integration with other signals needed. Of the total $91,700 cost for this improvement, 2/3 as listed at right is assumed attributable to TxDOT and/or City of Plano, with the remaining 1/3 assumed attributable to DART (see DART cost matrix).	40	$ 61,100
1C-CB-CW-059	DART/TxDOT/ City of Richardson	New Crosswalk	N President George Bush Hwy	Topridge Dr	East	75	Provide pedestrian hybrid beacon with advance "Yield Here to Pedestrians" signing for crossing PGBT eastbound frontage road. Of the total $176,900 cost for this improvement, 2/3 as listed at right is assumed attributable to TxDOT and/or City of Richardson, with the remaining 1/3 assumed attributable to DART (see DART cost matrix). See station area improvement 1C-CB-ST-09 for more information.	40	$ 117,900
Opinion of Probable Cost - Mixed Ownership Subtotal									***$ 240,600***
Opinion of Probable Cost - Total for All Crosswalk Recommendations in Half Mile Area									***$ 320,000***

APPENDIX K: Estimated Quantitiies & Opinions of Probable Construction Cost – Half-Mile Improvements

Opinion of Probable Construction Cost

Parker Road Station

Improvement Code Legend: **ID:** 1A-PR-SW-01
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OPCC 1A				1A-PR-SP-02		1A-PR-SW-23		1A-PR-SW-32		1A-PR-SW-33		1A-PR-RP-43		1A-PR-VW-V02	
ENTITY	**ITEM**	**UNIT**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**
DALLAS	**SIDEWALK (5')**	LF	$35.00	950	$33,250.00	505	$17,675.00	210	$7,350.00	600	$21,000.00	12	$420.00		$0.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00	1195	$83,650.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00		$0.00		$0.00	12	$240.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00	900	$67,500.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72		$0.00		$0.00		$0.00		$0.00		$0.00	40	$1,588.80
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00	5	$17,590.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00	50	$2,900.00
TXDOT	**PED RAMPS**	EA	$2,182.75	8	$17,462.00	4	$8,731.00	1	$2,182.75		$0.00		$0.00	4	$8,731.00
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00	1	$22,000.00		$0.00		$0.00		$0.00		$0.00	2	$44,000.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00		$0.00		$0.00		$0.00		$0.00		$0.00	75	$66,450.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33	2	$1,458.66	2	$1,458.66		$0.00		$0.00		$0.00	1	$729.33
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00	800	$42,400.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00	90	$8,730.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00

CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL	$74,170.66	$27,864.66	$9,532.75	$21,000.00	$660.00	$344,269.13
CONSTRUCTION COST	TOTAL	$74,170.66	$27,864.66	$9,532.75	$21,000.00	$660.00	$344,269.13
ENGINEERING DESIGN	10%	$7,417.07	$2,786.47	$953.28	$2,100.00	$66.00	$34,426.91
GENERAL LANDSCAPING	4%	$2,966.83	$1,114.59	$381.31	$840.00	$26.40	$13,770.77
STORMWATER POLLUTION PREVENTION PLAN	2%	$1,483.41	$557.29	$190.66	$420.00	$13.20	$6,885.38
TRAFFIC CONTROL	3%	$2,225.12	$835.94	$285.98	$630.00	$19.80	$10,328.07
MOBILIZATION	4%	$3,233.84	$1,214.90	$415.63	$915.60	$28.78	$15,010.13
FEDERAL CONTINGENCY	2%	$1,829.94	$687.48	$235.19	$518.11	$16.28	$8,493.81
OPCC	TOTAL	$93,400.00	$35,100.00	$12,000.00	$26,500.00	$900.00	$433,200.00
AVERAGE COST PER LF OF SIDEWALK		$98.32 PER LF	$69.50 PER LF	$57.14 PER LF	$44.17 PER LF	$75.00 PER LF	$362.51 PER LF
GRAND TOTAL FOR GROUP 1A	$2,305,200.00	Min Cost/LF	$44.17 PER LF				
		Max Cost/LF	$404.62 PER LF				

Opinion of Probable Construction Cost

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OPCC 1A				1A-PR-VW-V03		1A-PR-VW-V04		1A-PR-VW-V05		1A-PR-SW-01		1A-PR-SW-11		1A-PR-SW-14	
ENTITY	**ITEM**	**UNIT**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**
DALLAS	**SIDEWALK (5')**	LF	$35.00		$0.00		$0.00		$0.00	675	$23,625.00	130	$4,550.00	170	$5,950.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00	820	$57,400.00	1180	$82,600.00	700	$49,000.00		$0.00		$0.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00	150	$3,000.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72		$0.00	740	$29,392.80		$0.00	0	$0.00	130	$5,163.60	170	$6,752.40
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00	2	$7,036.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00	20	$1,160.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75	6	$13,096.50	3	$6,548.25	2	$4,365.50	2	$4,365.50	1	$2,182.75	1	$2,182.75
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00		$0.00	2	$44,000.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00	1	$572.00	1	$572.00	2	$1,144.00		$0.00		$0.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00		$0.00		$0.00		$0.00	1	$2,768.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00	3	$2,658.00		$0.00	4	$3,544.00		$0.00		$0.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00		$0.00		$0.00	2	$446.00		$0.00		$0.00		$0.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00	1	$8.00		$0.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33	1	$729.33		$0.00		$0.00	2	$1,458.66		$0.00		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00	500	$26,500.00	1000	$53,000.00	250	$13,250.00		$0.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00	50	$4,850.00	30	$2,910.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
	CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL			$117,001.83		$219,023.05		$71,757.50		$32,217.16		$11,896.35		$14,885.15
	CONSTRUCTION COST	TOTAL			$117,001.83		$219,023.05		$71,757.50		$32,217.16		$11,896.35		$14,885.15
	ENGINEERING DESIGN	10%			$11,700.18		$21,902.31		$7,175.75		$3,221.72		$1,189.64		$1,488.52
	GENERAL LANDSCAPING	4%			$4,680.07		$8,760.92		$2,870.30		$1,288.69		$475.85		$595.41
	STORMWATER POLLUTION PREVENTION PLAN	2%			$2,340.04		$4,380.46		$1,435.15		$644.34		$237.93		$297.70
	TRAFFIC CONTROL	3%			$3,510.05		$6,570.69		$2,152.73		$966.51		$356.89		$446.55
	MOBILIZATION	4%			$5,101.28		$9,549.40		$3,128.63		$1,404.67		$518.68		$648.99
	FEDERAL CONTINGENCY	2%			$2,886.67		$5,403.74		$1,770.40		$794.86		$293.51		$367.25
	OPCC	TOTAL			$147,300.00		$275,600.00		$90,300.00		$40,600.00		$15,000.00		$18,800.00
	AVERAGE COST PER LF OF SIDEWALK				$179.63 PER LF		$233.56 PER LF		$129.00 PER LF		$60.15 PER LF		$115.38 PER LF		$110.59 PER LF
	GRAND TOTAL FOR GROUP 1A	$2,305,200.00													

Opinion of Probable Construction Cost

Parker Road Station

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
01 ← Improvement Number (matches 1 on Map)

OPCC 1A				1A-PR-SW-17		1A-PR-SW-19		1A-PR-SW-34		1A-PR-CW-18		1A-PR-CW-24		1A-PR-CW-25	
ENTITY	**ITEM**	**UNIT**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**
DALLAS	**SIDEWALK (5')**	LF	$35.00	610	$21,350.00	425	$14,875.00	130	$4,550.00		$0.00		$0.00		$0.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00	130	$5,200.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00	180	$13,500.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72	610	$24,229.20		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75	5	$10,913.75	4	$8,731.00	4	$8,731.00	2	$4,365.50	1	$2,182.75	1	$2,182.75
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00		$0.00		$0.00	12	$433.80		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00	2	$44,000.00	1	$22,000.00	1	$22,000.00		$0.00		$0.00		$0.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00		$0.00		$0.00	1	$572.00		$0.00		$0.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00	1	$2,768.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00	2	$446.00	1	$223.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00		$0.00		$0.00		$0.00	4	$2,600.00	4	$2,600.00	4	$2,600.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00		$0.00		$0.00		$0.00	190	$1,710.00	110	$990.00	110	$990.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00		$0.00		$0.00		$0.00	24	$1,440.00	8	$480.00	8	$480.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33	1	$729.33	1	$729.33	1	$729.33		$0.00		$0.00		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00	3	$14,274.00	2	$9,516.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00		$0.00	1	$200,000.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
	CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL			$132,210.28		$56,074.33		$41,782.33		$10,549.30		$6,252.75		$6,252.75
	CONSTRUCTION COST	TOTAL			$132,210.28		$56,074.33		$41,782.33		$210,549.30		$6,252.75		$6,252.75
	ENGINEERING DESIGN	10%			$13,221.03		$5,607.43		$4,178.23		$21,054.93		$625.28		$625.28
	GENERAL LANDSCAPING	4%			$5,288.41		$2,242.97		$1,671.29		$421.97		$250.11		$250.11
	STORMWATER POLLUTION PREVENTION PLAN	2%			$2,644.21		$1,121.49		$835.65		$210.99		$125.06		$125.06
	TRAFFIC CONTROL	3%			$3,966.31		$1,682.23		$1,253.47		$316.48		$187.58		$187.58
	MOBILIZATION	4%			$5,764.37		$2,444.84		$1,821.71		$459.95		$272.62		$272.62
	FEDERAL CONTINGENCY	2%			$3,261.89		$1,383.47		$1,030.85		$4,660.27		$154.27		$154.27
	OPCC	TOTAL			$166,400.00		$70,600.00		$52,600.00		$237,700.00		$7,900.00		$7,900.00
	AVERAGE COST PER LF OF SIDEWALK				$272.79 PER LF		$166.12 PER LF		$404.62 PER LF		#DIV/0!		#DIV/0!		#DIV/0!
	GRAND TOTAL FOR GROUP 1A	$2,305,200.00													

Opinion of Probable Construction Cost

Parker Road Station

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
01 ← Improvement Number (matches 1 on Map)

OPCC 1A				1A-PR-CW-26		1A-PR-CW-39		1A-PR-CW-40		1A-PR-CW-41		1A-PR-CW-42	
ENTITY	**ITEM**	**UNIT**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**
DALLAS	**SIDEWALK (5')**	LF	$35.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75	2	$4,365.50		$0.00	3	$6,548.25	4	$8,731.00	4	$8,731.00
TXDOT	**MEDIAN CUT (5')**	LF	$36.15	12	$433.80		$0.00	4	$144.60	12	$433.80	12	$433.80
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00	2	$1,144.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00	4	$3,544.00		$0.00		$0.00		$0.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00		$0.00		$0.00		$0.00		$0.00	2	$446.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00	4	$2,600.00	4	$2,600.00	4	$2,600.00	4	$2,600.00	4	$2,600.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00	190	$1,710.00	330	$2,970.00	190	$1,710.00	250	$2,250.00	200	$1,800.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00	100	$800.00	50	$400.00	50	$400.00	100	$800.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00	24	$1,440.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000	1	$200,000.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00	1	$15,500.00	0.5	$7,750.00	0.5	$7,750.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00	1	$210,000.00
	CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL			$15,237.30		$6,370.00		$11,402.85		$14,414.80		$14,810.80
	CONSTRUCTION COST	TOTAL			$215,237.30		$21,870.00		$19,152.85		$22,164.80		$224,810.80
	ENGINEERING DESIGN	10%			$21,523.73		$2,187.00		$1,915.29		$2,216.48		$22,481.08
	GENERAL LANDSCAPING	4%			$609.49		$254.80		$456.11		$576.59		$592.43
	STORMWATER POLLUTION PREVENTION PLAN	2%			$304.75		$127.40		$228.06		$288.30		$296.22
	TRAFFIC CONTROL	3%			$457.12		$191.10		$342.09		$432.44		$444.32
	MOBILIZATION	4%			$664.35		$277.73		$497.16		$628.49		$645.75
	FEDERAL CONTINGENCY	2%			$4,775.93		$498.16		$451.83		$526.14		$4,985.41
	OPCC	TOTAL			$243,600.00		$25,500.00		$23,100.00		$26,900.00		$254,300.00
	AVERAGE COST PER LF OF SIDEWALK				#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
	GRAND TOTAL FOR GROUP 1A	$2,305,200.00											

Opinion of Probable Construction Cost

Downtown Plano Station

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number — SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
PR ← Station Abbreviation — 01 ← Improvement Number (matches 1 on Map)

OPCC 1B				1B-DP-SW-13		1B-DP-SW-35		1B-DP-SW-38		1B-DP-SW-39		1B-DP-SW-40		1B-DP-SW-41		1B-DP-SW-42	
ENTITY	ITEM	UNIT	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
DALLAS	SIDEWALK (5')	LF	$35.00	170	$5,950.00	210	$7,350.00	115	$4,025.00	175	$6,125.00	40	$1,400.00	585	$20,475.00	25	$875.00
DALLAS	SIDEWALK (10' PATH)	LF	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	REMOVE SIDEWALK	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (1')	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00	200	$4,000.00		$0.00
DALLAS	RETAINING WALL (2')	LF	$40.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (3')	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (4')	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (5')	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	CURB AND GUTTER	LF	$39.72		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	DRAINAGE INLETS (MODIFY)	EA	$3,518.00		$0.00		$0.00	2	$7,036.00		$0.00		$0.00	1	$3,518.00		$0.00
DALLAS	RCP 18"	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	PED RAMPS	EA	$2,182.75	1	$2,182.75	3	$6,548.25	2	$4,365.50	2	$4,365.50	5	$10,913.75	2	$4,365.50	2	$4,365.50
TXDOT	MEDIAN CUT (5')	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	MEDIAN CUT (10' PATH)	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	DRIVEWAY (RESIDENTIAL)	EA	$3,972.22		$0.00	1	$3,972.22		$0.00		$0.00		$0.00	4	$15,888.88		$0.00
DALLAS	DRIVEWAY (COMMERCIAL)	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	1	$8,444.44
N/A	UTILITY POLE RELOCATED	EA	$22,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	MANHOLE ADJUSTMENT	EA	$572.00	1	$572.00		$0.00		$0.00	2	$1,144.00		$0.00		$0.00		$0.00
DALLAS	TREE RELOCATIONS	EA	$2,768.00		$0.00		$0.00		$0.00		$0.00		$0.00	6	$16,608.00		$0.00
DALLAS	TREE REMOVALS	EA	$886.00		$0.00		$0.00		$0.00		$0.00		$0.00	3	$2,658.00		$0.00
N/A	RAILROAD CROSSING	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	TRAFFIC SIGNS RELOCATED	EA	$223.00		$0.00	1	$223.00	1	$223.00		$0.00	2	$446.00	1	$223.00		$0.00
TXDOT	TRAFFIC SIGNS NEW	EA	$650.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	PAVEMENT MARKINGS (CROSSWALK)	LF	$9.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	PAVEMENT MARKINGS (STOP BAR)	LF	$8.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PAVEMENT MARKINGS (TRIANGLES)	EA	$60.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)	EA	SEE OTHER SHEET		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	UTILITY BOX RELOCATION	EA	$729.33		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	LIGHT POLE RELOCATION	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	FENCE (REMOVE AND REPLACE)	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	FIRE HYDRANT RELOCATED	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	PARKING STOP	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED GENERAL LIGHTING (NOT FOR CROSSWALK)	EA	$21,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED	EA	$26,435.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED	EA	$27,182.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED	EA	$40,407.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED	EA	$41,183.75		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED	EA	$41,839.25		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED	EA	$42,615.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RRFB (#7) - 3 LANES W/O MEDIAN	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED HYBRID BEACON (#9) - 4 LANE DIVIDED	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED HYBRID BEACON (#9) - 6 LANE DIVIDED	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 1 CW	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 2 CW	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 3 CW	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 4 CW	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
	CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL			$8,704.75		$18,093.47		$15,649.50		$11,634.50		$12,759.75		$67,736.38		$13,684.94
	CONSTRUCTION COST	TOTAL			$8,704.75		$18,093.47		$15,649.50		$11,634.50		$12,759.75		$67,736.38		$13,684.94
	ENGINEERING DESIGN	10%			$870.48		$1,809.35		$1,564.95		$1,163.45		$1,275.98		$6,773.64		$1,368.49
	GENERAL LANDSCAPING	4%			$348.19		$723.74		$625.98		$465.38		$510.39		$2,709.46		$547.40
	SWPPP	2%			$174.10		$361.87		$312.99		$232.69		$255.20		$1,354.73		$273.70
	TRAFFIC CONTROL	3%			$261.14		$542.80		$469.49		$349.04		$382.79		$2,032.09		$410.55
	MOBILIZATION	4%			$379.53		$788.88		$682.32		$507.26		$556.33		$2,953.31		$596.66
	FEDERAL CONTINGENCY	2%			$214.76		$446.40		$386.10		$287.05		$314.81		$1,671.19		$337.63
	OPCC	TOTAL			$11,000.00		$22,800.00		$19,700.00		$14,700.00		$16,100.00		$85,300.00		$17,300.00
	AVERAGE COST PER LF OF SIDEWALK				$64.71 PER LF		$108.57 PER LF		$171.30 PER LF		$84.00 PER LF		$402.50 PER LF		$145.81 PER LF		$692.00 PER LF
	GRAND TOTAL FOR GROUP 1B	$1,927,100.00		Min Cost/LF	$53.47 PER LF												
				Max Cost/LF	$692.00 PER LF												

Opinion of Probable Construction Cost

Downtown Plano Station

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
01 ← Improvement Number (matches 1 on Map)

OPCC 1B				1B-DP-SW-43		1B-DP-SW-44		1B-DP-SW-45		1B-DP-SW-62		1B-DP-RP-64		1B-DP-SW-65		1B-DP-SW-66	
ENTITY	**ITEM**	**UNIT**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**
DALLAS	**SIDEWALK (5')**	LF	$35.00	205	$7,175.00	400	$14,000.00	490	$17,150.00	245	$8,575.00	35	$1,225.00	125	$4,375.00	160	$5,600.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00		$0.00		$0.00	35	$700.00		$0.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00	200	$8,000.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75	2	$4,365.50	2	$4,365.50		$0.00		$0.00	3	$6,548.25	2	$4,365.50		$0.00
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22	2	$7,944.44	1	$3,972.22	2	$7,944.44		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00	3	$66,000.00	3	$66,000.00	1	$22,000.00		$0.00		$0.00	2	$44,000.00	1	$22,000.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00	3	$1,716.00	4	$2,288.00	3	$1,716.00		$0.00		$0.00	2	$1,144.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00		$0.00	1	$2,768.00	2	$5,536.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00	1	$886.00	1	$886.00	4	$3,544.00		$0.00		$0.00	1	$886.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00	1	$223.00		$0.00	4	$892.00		$0.00		$0.00		$0.00	1	$223.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00		$0.00		$0.00		$0.00	2	$1,300.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00		$0.00		$0.00		$0.00	8	$480.00		$0.00		$0.00		$0.00
N/A	**MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)**	EA	SEE OTHER SHEET		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33		$0.00	5	$3,646.65	2	$1,458.66		$0.00		$0.00	2	$1,458.66		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED GENERAL LIGHTING (NOT FOR CROSSWALK)**	EA	$21,000.00		$0.00	1	$21,000.00	1	$21,000.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED**	EA	$26,435.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED**	EA	$27,182.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED**	EA	$40,407.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED**	EA	$41,183.75		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED**	EA	$41,839.25		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED**	EA	$42,615.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00

CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL	$88,309.94	$97,926.37	$68,241.10	$10,355.00	$8,473.25	$56,229.16	$27,823.00
CONSTRUCTION COST	TOTAL	$88,309.94	$118,926.37	$89,241.10	$10,355.00	$8,473.25	$56,229.16	$27,823.00
ENGINEERING DESIGN	10%	$8,830.99	$9,792.64	$6,824.11	$1,035.50	$847.33	$5,622.92	$2,782.30
GENERAL LANDSCAPING	4%	$3,532.40	$3,917.05	$2,729.64	$414.20	$338.93	$2,249.17	$1,112.92
SWPPP	2%	$1,766.20	$1,958.53	$1,364.82	$207.10	$169.47	$1,124.58	$556.46
TRAFFIC CONTROL	3%	$2,649.30	$2,937.79	$2,047.23	$310.65	$254.20	$1,686.87	$834.69
MOBILIZATION	4%	$3,850.31	$4,269.59	$2,975.31	$451.48	$369.43	$2,451.59	$1,213.08
FEDERAL CONTINGENCY	2%	$2,178.78	$2,836.04	$2,103.64	$255.48	$209.05	$1,387.29	$686.45
OPCC	TOTAL	$111,200.00	$144,700.00	$107,300.00	$13,100.00	$10,700.00	$70,800.00	$35,100.00
AVERAGE COST PER LF OF SIDEWALK		$542.44 PER LF	$361.75 PER LF	$218.98 PER LF	$53.47 PER LF	$305.71 PER LF	$566.40 PER LF	$219.38 PER LF

GRAND TOTAL FOR GROUP 1B **$1,927,100.00**

Opinion of Probable Construction Cost

Downtown Plano Station

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number — SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
PR ← Station Abbreviation — 01 ← Improvement Number (matches 1 on Map)

OPCC 1B				1B-DP-SW-91		1B-DP-SW-92		1B-DP-SW-117		1B-DP-SW-126		1B-DP-SW-127		1B-DP-SW-128		1B-DP-SW-129	
ENTITY	ITEM	UNIT	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
DALLAS	SIDEWALK (5')	LF	$35.00	100	$3,500.00	265	$9,275.00	250	$8,750.00	205	$7,175.00	215	$7,525.00	595	$20,825.00	330	$11,550.00
DALLAS	SIDEWALK (10' PATH)	LF	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	REMOVE SIDEWALK	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (1')	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (2')	LF	$40.00		$0.00		$0.00	220	$8,800.00		$0.00		$0.00		$0.00	150	$6,000.00
DALLAS	RETAINING WALL (3')	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (4')	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (5')	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	CURB AND GUTTER	LF	$39.72		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	DRAINAGE INLETS (MODIFY)	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RCP 18"	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	PED RAMPS	EA	$2,182.75	1	$2,182.75		$0.00	2	$4,365.50	1	$2,182.75	2	$4,365.50	1	$2,182.75	2	$4,365.50
TXDOT	MEDIAN CUT (5')	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	MEDIAN CUT (10' PATH)	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	DRIVEWAY (RESIDENTIAL)	EA	$3,972.22		$0.00		$0.00	2	$7,944.44	4	$15,888.88		$0.00	5	$19,861.10		$0.00
DALLAS	DRIVEWAY (COMMERCIAL)	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	1	$8,444.44
N/A	UTILITY POLE RELOCATED	EA	$22,000.00	1	$22,000.00		$0.00		$0.00	2	$44,000.00	1	$22,000.00	6	$132,000.00	1	$22,000.00
DALLAS	MANHOLE ADJUSTMENT	EA	$572.00		$0.00	1	$572.00	3	$1,716.00	3	$1,716.00	2	$1,144.00		$0.00	3	$1,716.00
DALLAS	TREE RELOCATIONS	EA	$2,768.00		$0.00		$0.00		$0.00	1	$2,768.00		$0.00	3	$8,304.00		$0.00
DALLAS	TREE REMOVALS	EA	$886.00		$0.00		$0.00		$0.00		$0.00		$0.00	5	$4,430.00		$0.00
N/A	RAILROAD CROSSING	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	TRAFFIC SIGNS RELOCATED	EA	$223.00		$0.00		$0.00	1	$223.00		$0.00	1	$223.00	2	$446.00	2	$446.00
TXDOT	TRAFFIC SIGNS NEW	EA	$650.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	PAVEMENT MARKINGS (CROSSWALK)	LF	$9.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	PAVEMENT MARKINGS (STOP BAR)	LF	$8.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PAVEMENT MARKINGS (TRIANGLES)	EA	$60.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)	EA	SEE OTHER SHEET		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	UTILITY BOX RELOCATION	EA	$729.33		$0.00	2	$1,458.66		$0.00	5	$3,646.65		$0.00	4	$2,917.32		$0.00
DALLAS	LIGHT POLE RELOCATION	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	FENCE (REMOVE AND REPLACE)	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	FIRE HYDRANT RELOCATED	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	PARKING STOP	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED GENERAL LIGHTING (NOT FOR CROSSWALK)	EA	$21,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED	EA	$26,435.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED	EA	$27,182.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED	EA	$40,407.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED	EA	$41,183.75		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED	EA	$41,839.25		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED	EA	$42,615.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RRFB (#7) - 3 LANES W/O MEDIAN	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED HYBRID BEACON (#9) - 4 LANE DIVIDED	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED HYBRID BEACON (#9) - 6 LANE DIVIDED	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 1 CW	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 2 CW	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 3 CW	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 4 CW	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
	CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL			$27,682.75		$11,305.66		$31,798.94		$77,377.28		$35,257.50		$190,966.17		$54,521.94
	CONSTRUCTION COST	TOTAL			$27,682.75		$11,305.66		$31,798.94		$77,377.28		$35,257.50		$190,966.17		$54,521.94
	ENGINEERING DESIGN	10%			$2,768.28		$1,130.57		$3,179.89		$7,737.73		$3,525.75		$19,096.62		$5,452.19
	GENERAL LANDSCAPING	4%			$1,107.31		$452.23		$1,271.96		$3,095.09		$1,410.30		$7,638.65		$2,180.88
	SWPPP	2%			$553.66		$226.11		$635.98		$1,547.55		$705.15		$3,819.32		$1,090.44
	TRAFFIC CONTROL	3%			$830.48		$339.17		$953.97		$2,321.32		$1,057.73		$5,728.99		$1,635.66
	MOBILIZATION	4%			$1,206.97		$492.93		$1,386.43		$3,373.65		$1,537.23		$8,326.13		$2,377.16
	FEDERAL CONTINGENCY	2%			$682.99		$278.93		$784.54		$1,909.05		$869.87		$4,711.52		$1,345.17
	OPCC	TOTAL			$34,900.00		$14,300.00		$40,100.00		$97,400.00		$44,400.00		$240,300.00		$68,700.00
	AVERAGE COST PER LF OF SIDEWALK				$349.00 PER LF		$53.96 PER LF		$160.40 PER LF		$475.12 PER LF		$206.51 PER LF		$403.87 PER LF		$208.18 PER LF
	GRAND TOTAL FOR GROUP 1B	$1,927,100.00															

Opinion of Probable Construction Cost

Downtown Plano Station

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number — SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
PR ← Station Abbreviation — 01 ← Improvement Number (matches 1 on Map)

OPCC 1B				1B-DP-SW-131		1B-DP-SW-143		1B-DP-SW-145		1B-DP-SW-48		1B-DP-CW-46		1B-DP-CW-58		1B-DP-CW-60	
ENTITY	ITEM	UNIT	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
DALLAS	SIDEWALK (5')	LF	$35.00	180	$6,300.00	90	$3,150.00	220	$7,700.00	280	$9,800.00		$0.00		$0.00		$0.00
DALLAS	SIDEWALK (10' PATH)	LF	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	REMOVE SIDEWALK	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (1')	LF	$20.00	150	$3,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (2')	LF	$40.00		$0.00		$0.00	90	$3,600.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (3')	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (4')	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	RETAINING WALL (5')	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	CURB AND GUTTER	LF	$39.72		$0.00		$0.00	220	$8,738.40		$0.00		$0.00		$0.00		$0.00
DALLAS	DRAINAGE INLETS (MODIFY)	EA	$3,518.00		$0.00		$0.00	2	$7,036.00	1	$3,518.00		$0.00		$0.00		$0.00
DALLAS	RCP 18"	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	PED RAMPS	EA	$2,182.75	1	$2,182.75	2	$4,365.50		$0.00	5	$10,913.75		$0.00		$0.00	2	$4,365.50
TXDOT	MEDIAN CUT (5')	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	MEDIAN CUT (10' PATH)	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	DRIVEWAY (RESIDENTIAL)	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	DRIVEWAY (COMMERCIAL)	EA	$8,444.44		$0.00		$0.00	2	$16,888.88		$0.00		$0.00		$0.00		$0.00
N/A	UTILITY POLE RELOCATED	EA	$22,000.00	1	$22,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	MANHOLE ADJUSTMENT	EA	$572.00		$0.00	1	$572.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	TREE RELOCATIONS	EA	$2,768.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	2	$5,536.00
DALLAS	TREE REMOVALS	EA	$886.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RAILROAD CROSSING	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	TRAFFIC SIGNS RELOCATED	EA	$223.00	1	$223.00		$0.00		$0.00	3	$669.00		$0.00	2	$446.00	2	$446.00
TXDOT	TRAFFIC SIGNS NEW	EA	$650.00		$0.00		$0.00		$0.00		$0.00	4	$2,600.00	4	$2,600.00	2	$1,300.00
DALLAS	PAVEMENT MARKINGS (CROSSWALK)	LF	$9.00		$0.00		$0.00		$0.00		$0.00	60	$540.00	100	$900.00	170	$1,530.00
DALLAS	PAVEMENT MARKINGS (STOP BAR)	LF	$8.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PAVEMENT MARKINGS (TRIANGLES)	EA	$60.00		$0.00		$0.00		$0.00		$0.00		$0.00	16	$960.00		$0.00
N/A	MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)	EA	SEE OTHER SHEET		$0.00		$0.00		$0.00		$0.00	1	$11,353.40	1	$52,545.56		$0.00
TXDOT	UTILITY BOX RELOCATION	EA	$729.33		$0.00		$0.00	2	$1,458.66	3	$2,187.99		$0.00		$0.00		$0.00
DALLAS	LIGHT POLE RELOCATION	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	FENCE (REMOVE AND REPLACE)	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	FIRE HYDRANT RELOCATED	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	1	$3,640.00
DALLAS	PARKING STOP	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED GENERAL LIGHTING (NOT FOR CROSSWALK)	EA	$21,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED	EA	$26,435.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED	EA	$27,182.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED	EA	$40,407.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED	EA	$41,183.75		$0.00		$0.00		$0.00		$0.00	1	$41,183.75		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED	EA	$41,839.25		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED	EA	$42,615.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RRFB (#7) - 3 LANES W/O MEDIAN	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED HYBRID BEACON (#9) - 4 LANE DIVIDED	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED HYBRID BEACON (#9) - 6 LANE DIVIDED	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 1 CW	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 2 CW	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 3 CW	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	APS & COUNTDOWN PED SIGNAL (#10) - 4 CW	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
	CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL			$33,705.75		$8,087.50		$45,421.94		$27,088.74		$14,493.40		$57,451.56		$16,817.50
	CONSTRUCTION COST	TOTAL			$33,705.75		$8,087.50		$45,421.94		$27,088.74		$55,677.15		$57,451.56		$16,817.50
	ENGINEERING DESIGN	10%			$3,370.58		$808.75		$4,542.19		$2,708.87		$1,449.34		$5,745.16		$1,681.75
	GENERAL LANDSCAPING	4%			$1,348.23		$323.50		$1,816.88		$1,083.55		$579.74		$2,298.06		$672.70
	SWPPP	2%			$674.12		$161.75		$908.44		$541.77		$289.87		$1,149.03		$336.35
	TRAFFIC CONTROL	3%			$1,011.17		$242.63		$1,362.66		$812.66		$434.80		$1,723.55		$504.53
	MOBILIZATION	4%			$1,469.57		$352.62		$1,980.40		$1,181.07		$631.91		$2,504.89		$733.24
	FEDERAL CONTINGENCY	2%			$831.59		$199.53		$1,120.65		$668.33		$1,181.26		$1,417.44		$414.92
	OPCC	TOTAL			$42,500.00		$10,200.00		$57,200.00		$34,100.00		$60,300.00		$72,300.00		$21,200.00
	AVERAGE COST PER LF OF SIDEWALK				$236.11 PER LF		$113.33 PER LF		$260.00 PER LF		$121.79 PER LF		#DIV/0!		#DIV/0!		#DIV/0!
	GRAND TOTAL FOR GROUP 1B	$1,927,100.00															

Opinion of Probable Construction Cost

Downtown Plano Station

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number — SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
PR ← Station Abbreviation — 01 ← Improvement Number (matches 1 on Map)

OPCC 1B				1B-DP-CW-61		1B-DP-CW-93		1B-DP-CW-94		1B-DP-CW-96		1B-DP-CW-97		1B-DP-SW-63	
ENTITY	**ITEM**	**UNIT**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**	**QUANTITY**	**COST**
DALLAS	**SIDEWALK (5')**	LF	$35.00		$0.00		$0.00		$0.00		$0.00		$0.00	320	$11,200.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00	30	$600.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00		$0.00		$0.00		$0.00	120	$4,800.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72		$0.00		$0.00		$0.00		$0.00		$0.00	10	$397.20
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75		$0.00		$0.00		$0.00		$0.00		$0.00	1	$2,182.75
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00	2	$446.00	2	$446.00	2	$446.00		$0.00		$0.00	4	$892.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00	2	$1,300.00	4	$2,600.00	4	$2,600.00	4	$2,600.00	4	$2,600.00		$0.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00	150	$1,350.00	100	$900.00	100	$900.00	100	$900.00	100	$900.00		$0.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00		$0.00	50	$400.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00		$0.00	16	$960.00	16	$960.00		$0.00	16	$960.00		$0.00
N/A	**MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)**	EA	SEE OTHER SHEET		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED GENERAL LIGHTING (NOT FOR CROSSWALK)**	EA	$21,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED**	EA	$26,435.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED**	EA	$27,182.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED**	EA	$40,407.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED**	EA	$41,183.75		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED**	EA	$41,839.25		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED**	EA	$42,615.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00	0.5	$87,500.00	0.5	$87,500.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00	1	$175,000.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
	CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL			$3,096.00		$5,506.00		$4,906.00		$3,900.00		$4,460.00		$19,471.95
	CONSTRUCTION COST	TOTAL			$3,096.00		$93,006.00		$92,406.00		$178,900.00		$4,460.00		$19,471.95
	ENGINEERING DESIGN	10%			$309.60		$550.60		$490.60		$390.00		$446.00		$1,947.20
	GENERAL LANDSCAPING	4%			$123.84		$220.24		$196.24		$156.00		$178.40		$778.88
	SWPPP	2%			$61.92		$110.12		$98.12		$78.00		$89.20		$389.44
	TRAFFIC CONTROL	3%			$92.88		$165.18		$147.18		$117.00		$133.80		$584.16
	MOBILIZATION	4%			$134.99		$240.06		$213.90		$170.04		$194.46		$848.98
	FEDERAL CONTINGENCY	2%			$76.38		$1,885.84		$1,871.04		$3,596.22		$110.04		$480.41
	OPCC	TOTAL			$3,900.00		$96,200.00		$95,500.00		$183,500.00		$5,700.00		$24,600.00
	AVERAGE COST PER LF OF SIDEWALK				#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		$76.88 PER LF
	GRAND TOTAL FOR GROUP 1B	**$1,927,100.00**													

Median Island Detailed Estimate - LOCATION 1B-DP-CW-46

(NOTES FROM WAP 2020-05-06)
This is similar +/- to similar location developed for 5A
copied and pasted from 05A OPCC for reference
will use same methodology and quantities and final cost
did not change anything from 05A

Assumptions
is across 8th Street on west side of Denley
assume 45 foot long
tear drop shape on west side - estimate as 2 triangles
assume max width at Denley is 10 foot

	ITEM NO	ITEM UNIT	QTY	UNIT COST	TOTAL
remove ex conc pavement (will equal new median area plus couple feet for C & G construction	0104 6001	SF	560	$0.49	$274.40
add median refuge island median pavment	356	SF	450	$6.00	$2,700.00
add conc roadway pavement thru refuge island space	454	SF	100	$6.33	$633.00
add conc curb across median refuge island	407	LF	20	$32.00	$640.00
add C & C along 8th street across median refuge length	407	LF	110	$32.00	$3,520.00
add striping east of Denley directing traffic to one lane each direction	0666 6035	LF	200	$0.84	$168.00
add striping west of tear drop to direct traffic around island approach	0666 6035	LF	200	$0.84	$168.00
add signs - west 1 on median, 2 advance signs to merge	0636 & 0646	EACH	3	$650.00	$1,950.00
add signs east of Hanley - heading WB 2 signs lane ends merge right	0636 & 0646	EACH	2	$650.00	$1,300.00
					$11,353.40

area of median - assume 2 triangles
0.5 x 45 x 10 x 2 = 450 sf

area of removal
add 45 lf x 2 sides plus 20 feet for median nose to median area
= 450 + [(45 x 2) + 20] = 560 SF

conc rdway pvmt at median refuge assume 10 ft wide x 10 ft long = 100 SF

Median Island Detailed Estimate - LOCATION 1B-DP-CW-58

Assumptions

	ITEM NO	ITEM UNIT	QTY	UNIT COST	TOTAL
existing median width 10 plus conc curb and gutter					
remove median pvmt	0104 6001	SF	140	$1.38	$193.20
remove conc C & G	0104 6022	LF	28	$7.62	$213.36
need to remove existing brick pavers and also reinstall along revised median configuration					
remove ex pavers	ASSUMED	SF	56	$5.00	$280.00
replace/reinstall brick pavers	ASSUMED	SF	56	$15.00	$840.00
for refuge along tracks remove 14 ft width to allow for construction of 10 wide refuge - 2 wheelchairs to pass					
installl 10 ft conc pavement	454	SF	120	$6.33	$759.60
install curb along road - each side	407	LF	16	$32.00	$512.00
install curb along median refuge	407	LF	20	$32.00	$640.00
remove ex median nose at west end to extend					
remove median pvmt	0104 6001	SF	50	$1.38	$69.00
remove C & G	0104 6022	LF	20	$7.62	$152.40
remove ex pavers	ASSUMED	SF	40	$5.00	$200.00
replace/reinstall brick pavers	ASSUMED	SF	30	$15.00	$450.00
install new conc median (leave opening to park drive on north side)					
measure on street view 135 lf					
assume width 10 ft to match existing width					
remove existing pavers	ASSUMED	SF	1890	$5.00	$9,450.00
replace/reinstall brick pavers	ASSUMED	SF	540	$15.00	$8,100.00
install concrete median pavement	350	SF	1350	$6.00	$8,100.00
install conc C & G	407	LF	600	$32.00	$19,200.00
remove existing signs (between I avenue and DART tracks)	807B	EACH	2	$223.00	$446.00
install new signs west of I Avenue	0636 &0646	EACH	3	$650.00	$1,950.00
add painted arrows on pavement west of I Ave for right turn only	0668 6019	EACH	2	$495.00	$990.00
					$52,545.56

Opinion of Probable Construction Cost

CityLine Bush Station

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01 ← Improvement Number (matches 1 on Map)

OPCC 1C				1C-CB-SW-009		1C-CB-SW-016		1C-CB-SW-019		1C-CB-SW-023		1C-CB-SW-032		1C-CB-SW-035		1C-CB-SW-038		1C-CB-SW-040	
ENTITY	ITEM	UNIT	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
DALLAS	**SIDEWALK (5')**	LF	$35.00		$0.00		$0.00		$0.00		$0.00	120	$4,200.00	255	$8,925.00		$0.00	280	$9,800.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00	725	$50,750.00	450	$31,500.00	300	$21,000.00	160	$11,200.00		$0.00		$0.00	250	$17,500.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	30	$600.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00	350	$7,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00		$0.00		$0.00		$0.00	120	$4,800.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72		$0.00		$0.00	160	$6,355.20		$0.00		$0.00	250	$9,930.00		$0.00		$0.00
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75	4	$8,731.00	4	$8,731.00	4	$8,731.00		$0.00	2	$4,365.50	2	$4,365.50	2	$4,365.50	4	$8,731.00
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00	2	$16,888.88		$0.00		$0.00	1	$8,444.44		$0.00	1	$8,444.44
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00		$0.00		$0.00	1	$22,000.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00		$0.00	1	$572.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00	6	$16,608.00		$0.00	4	$11,072.00		$0.00		$0.00	4	$11,072.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00		$0.00	4	$3,544.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00		$0.00	1	$120,000.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00	2	$446.00	1	$223.00	2	$446.00		$0.00		$0.00	1	$223.00		$0.00		$0.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33	3	$2,187.99	7	$5,105.31		$0.00		$0.00		$0.00	1	$729.33		$0.00		$0.00
DALLAS	**MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)**	EA	SEE OTHER SHEET		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED GENERAL LIGHTING (NOT FOR CROSSWALK)**	EA	$21,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED**	EA	$26,435.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED**	EA	$27,182.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED**	EA	$40,407.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED**	EA	$41,183.75		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED**	EA	$41,839.25		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED**	EA	$42,615.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
	CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL			$85,722.99		$49,675.31		$86,493.08		$131,200.00		$8,565.50		$48,489.27		$22,465.50		$26,975.44
	CONSTRUCTION COST	TOTAL			$85,722.99		$49,675.31		$86,493.08		$131,200.00		$8,565.50		$48,489.27		$22,465.50		$26,975.44
	ENGINEERING DESIGN	10%			$8,572.30		$4,967.53		$8,649.31		$13,120.00		$856.55		$4,848.93		$2,246.55		$2,697.54
	GENERAL LANDSCAPING	4%			$3,428.92		$1,987.01		$3,459.72		$5,248.00		$342.62		$1,939.57		$898.62		$1,079.02
	SWPPP	2%			$1,714.46		$993.51		$1,729.86		$2,624.00		$171.31		$969.79		$449.31		$539.51
	TRAFFIC CONTROL	3%			$2,571.69		$1,490.26		$2,594.79		$3,936.00		$256.97		$1,454.68		$673.97		$809.26
	MOBILIZATION	4%			$3,737.52		$2,165.84		$3,771.10		$5,720.32		$373.46		$2,114.13		$979.50		$1,176.13
	FEDERAL CONTINGENCY	2%			$2,114.96		$1,225.59		$2,133.96		$3,236.97		$211.33		$1,196.33		$554.27		$665.54
	OPCC	TOTAL			$107,900.00		$62,600.00		$108,900.00		$165,100.00		$10,800.00		$61,100.00		$28,300.00		$34,000.00
	AVERAGE COST PER LF OF SIDEWALK				$148.83 PER LF		$139.11 PER LF		$363.00 PER LF		$1031.88 PER LF		$90.00 PER LF		$239.61 PER LF		$113.20 PER LF		$121.43 PER LF
	GRAND TOTAL FOR GROUP 1C	$1,950,700.00		Min Cost/LF	$44.62 PER LF														
				Max Cost/LF	$1246.92 PER LF														

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OPCC 1C				1C-CB-SW-046		1C-CB-SW-047		1C-CB-SW-073		1C-CB-SW-027		1C-CB-SW-030		1C-CB-SW-036		1C-CB-SW-037		1C-CB-SW-048	
ENTITY	ITEM	UNIT	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
DALLAS	**SIDEWALK (5')**	LF	$35.00		$0.00	295	$10,325.00	165	$5,775.00	1095	$38,325.00	705	$24,675.00	50	$1,750.00	130	$4,550.00	630	$22,050.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00	290	$20,300.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00		$0.00	50	$1,000.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00		$0.00	260	$10,400.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00		$0.00	15	$1,875.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72	200	$7,944.00	200	$7,944.00	150	$5,958.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75		$0.00		$0.00		$0.00	6	$13,096.50	2	$4,365.50	1	$2,182.75		$0.00	4	$8,731.00
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00		$0.00		$0.00		$0.00	1	$22,000.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00	2	$446.00	2	$446.00	1	$223.00	5	$1,115.00	6	$1,338.00		$0.00		$0.00	1	$223.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33	2	$1,458.66	2	$1,458.66	1	$729.33		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)**	EA	SEE OTHER SHEET		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00	1	$4,758.00	1	$4,758.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED GENERAL LIGHTING (NOT FOR CROSSWALK)**	EA	$21,000.00	1	$21,000.00	1	$21,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED**	EA	$26,435.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED**	EA	$27,182.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED**	EA	$40,407.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED**	EA	$41,183.75		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED**	EA	$41,839.25		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED**	EA	$42,615.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00

CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL	$30,148.66	$20,173.66	$17,443.33	$92,569.50	$30,378.50	$3,932.75	$4,550.00	$31,004.00
CONSTRUCTION COST	TOTAL	$51,148.66	$41,173.66	$17,443.33	$92,569.50	$30,378.50	$3,932.75	$4,550.00	$31,004.00
ENGINEERING DESIGN	10%	$5,114.87	$4,117.37	$1,744.33	$9,256.95	$3,037.85	$393.28	$455.00	$3,100.40
GENERAL LANDSCAPING	4%	$1,205.95	$806.95	$697.73	$3,702.78	$1,215.14	$157.31	$182.00	$1,240.16
SWPPP	2%	$602.97	$403.47	$348.87	$1,851.39	$607.57	$78.66	$91.00	$620.08
TRAFFIC CONTROL	3%	$904.46	$605.21	$523.30	$2,777.09	$911.36	$117.98	$136.50	$930.12
MOBILIZATION	4%	$1,314.48	$879.57	$760.53	$4,036.03	$1,324.50	$171.47	$198.38	$1,351.77
FEDERAL CONTINGENCY	2%	$1,205.83	$959.72	$430.36	$2,283.87	$749.50	$97.03	$112.26	$764.93
OPCC	TOTAL	$61,500.00	$49,000.00	$22,000.00	$116,500.00	$38,300.00	$5,000.00	$5,800.00	$39,100.00
AVERAGE COST PER LF OF SIDEWALK		$212.07 PER LF	$166.10 PER LF	$133.33 PER LF	$106.39 PER LF	$54.33 PER LF	$100.00 PER LF	$44.62 PER LF	$62.06 PER LF
GRAND TOTAL FOR GROUP 1C	$1,950,700.00								

Opinion of Probable Construction Cost

CityLine Bush Station

Improvement Code Legend: **ID:** 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
01 ← Improvement Number (matches 1 on Map)

OPCC 1C				1C-CB-SW-050		1C-CB-SW-051		1C-CB-SW-052		1C-CB-SW-054		1C-CB-SW-060		1C-CB-SW-061		1C-CB-SW-042		1C-CB-SW-044	
ENTITY	ITEM	UNIT	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
DALLAS	**SIDEWALK (5')**	LF	$35.00	770	$26,950.00	825	$28,875.00	550	$19,250.00	1440	$50,400.00	70	$2,450.00	65	$2,275.00	45	$1,575.00	$100.00	$3,500.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00		$0.00		$0.00		$0.00		$0.00	60	$4,200.00		$0.00		$0.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00	10	$200.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00	150	$18,750.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75	2	$4,365.50	5	$10,913.75		$0.00	5	$10,913.75		$0.00	2	$4,365.50	1	$2,182.75		$0.00
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00	6	$216.90		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00	1	$120,000.00		$0.00		$0.00	1	$120,000.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00	2	$446.00		$0.00		$0.00	3	$669.00	3	$669.00		$0.00		$0.00		$0.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00		$0.00		$0.00		$0.00	50	$450.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33		$0.00		$0.00		$0.00		$0.00	2	$1,458.66	1	$729.33		$0.00		$0.00
DALLAS	**MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)**	EA	SEE OTHER SHEET		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED GENERAL LIGHTING (NOT FOR CROSSWALK)**	EA	$21,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED**	EA	$26,435.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED**	EA	$27,182.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED**	EA	$40,407.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED**	EA	$41,183.75		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED**	EA	$41,839.25		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED**	EA	$42,615.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00

CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL	$31,761.50	$160,005.65	$38,200.00	$62,432.75	$128,777.66	$7,369.83	$3,757.75	$3,500.00
CONSTRUCTION COST	TOTAL	$31,761.50	$160,005.65	$38,200.00	$62,432.75	$128,777.66	$7,369.83	$3,757.75	$3,500.00
ENGINEERING DESIGN	10%	$3,176.15	$16,000.57	$3,820.00	$6,243.28	$12,877.77	$736.98	$375.78	$350.00
GENERAL LANDSCAPING	4%	$1,270.46	$6,400.23	$1,528.00	$2,497.31	$5,151.11	$294.79	$150.31	$140.00
SWPPP	2%	$635.23	$3,200.11	$764.00	$1,248.66	$2,575.55	$147.40	$75.16	$70.00
TRAFFIC CONTROL	3%	$952.85	$4,800.17	$1,146.00	$1,872.98	$3,863.33	$221.09	$112.73	$105.00
MOBILIZATION	4%	$1,384.80	$6,976.25	$1,665.52	$2,722.07	$5,614.71	$321.32	$163.84	$152.60
FEDERAL CONTINGENCY	2%	$783.62	$3,947.66	$942.47	$1,540.34	$3,177.20	$181.83	$92.71	$86.35
OPCC	TOTAL	$40,000.00	$201,400.00	$48,100.00	$78,600.00	$162,100.00	$9,300.00	$4,800.00	$4,500.00
AVERAGE COST PER LF OF SIDEWALK		$51.95 PER LF	$244.12 PER LF	$87.45 PER LF	$54.58 PER LF	$1246.92 PER LF	$143.08 PER LF	$106.67 PER LF	$45.00 PER LF
GRAND TOTAL FOR GROUP 1C	$1,950,700.00								

Opinion of Probable Construction Cost

CityLine Bush Station

Improvement Code Legend: ID: 1A-PR-SW-01
1A ← Station Number
PR ← Station Abbreviation
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
01 ← Improvement Number (matches 1 on Map)

OPCC 1C				1C-CB-SW-056		1C-CB-SW-071		1C-CB-CW-031		1C-CB-CW-039		1C-CB-CW-049		1C-CB-CW-051		1C-CB-CW-059		1C-CB-CW-061	
ENTITY	ITEM	UNIT	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
DALLAS	**SIDEWALK (5')**	LF	$35.00	360	$12,600.00	120	$4,200.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72	200	$7,944.00		$0.00	130	$5,163.60		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75	3	$6,548.25		$0.00	2	$4,365.50	2	$4,365.50		$0.00		$0.00		$0.00		$0.00
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00		$0.00		$0.00		$0.00	3	$1,716.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00	5	$1,115.00	3	$669.00		$0.00		$0.00	1	$223.00	3	$669.00	3	$669.00	1	$223.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00		$0.00		$0.00	4	$2,600.00	4	$2,600.00	4	$2,600.00	4	$2,600.00	4	$2,600.00	2	$1,300.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00	100	$900.00		$0.00	100	$900.00	480	$4,320.00	100	$900.00		$0.00	230	$2,070.00	30	$270.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00		$0.00	48	$384.00	48	$384.00		$0.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00		$0.00		$0.00	16	$960.00		$0.00		$0.00		$0.00	12	$720.00	5	$300.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33	3	$2,187.99		$0.00	1	$729.33	2	$1,458.66		$0.00	1	$729.33	1	$729.33	1	$729.33
DALLAS	**MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)**	EA	SEE OTHER SHEET		$0.00		$0.00	1	$8,602.40		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED GENERAL LIGHTING (NOT FOR CROSSWALK)**	EA	$21,000.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED**	EA	$26,435.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED**	EA	$27,182.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED**	EA	$40,407.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED**	EA	$41,183.75		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED**	EA	$41,839.25		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED**	EA	$42,615.50		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00	1	$150,000.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00		$0.00	1	$15,500.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00		$0.00
	CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL			$31,295.24		$4,869.00		$23,320.83		$14,844.16		$4,107.00		$3,998.33		$6,788.33		$2,822.33
	CONSTRUCTION COST	TOTAL			$31,295.24		$4,869.00		$23,320.83		$30,344.16		$4,107.00		$3,998.33		$156,788.33		$2,822.33
	ENGINEERING DESIGN	10%			$3,129.52		$486.90		$2,332.08		$3,034.42		$410.70		$399.83		$15,678.83		$282.23
	GENERAL LANDSCAPING	4%			$1,251.81		$194.76		$932.83		$593.77		$164.28		$159.93		$271.53		$112.89
	SWPPP	2%			$625.90		$97.38		$466.42		$296.88		$82.14		$79.97		$135.77		$56.45
	TRAFFIC CONTROL	3%			$938.86		$146.07		$699.62		$445.32		$123.21		$119.95		$203.65		$84.67
	MOBILIZATION	4%			$1,364.47		$212.29		$1,016.79		$647.21		$179.07		$174.33		$295.97		$123.05
	FEDERAL CONTINGENCY	2%			$772.12		$120.13		$575.37		$707.24		$101.33		$98.65		$3,467.48		$69.63
	OPCC	TOTAL			$39,400.00		$6,200.00		$29,400.00		$36,100.00		$5,200.00		$5,100.00		$176,900.00		$3,600.00
	AVERAGE COST PER LF OF SIDEWALK				$109.44 PER LF		$51.67 PER LF		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!		#DIV/0!
	GRAND TOTAL FOR GROUP 1C	$1,950,700.00																	

Opinion of Probable Construction Cost

CityLine Bush Station

Improvement Code Legend: **ID:** 1A-PR-SW-01

1A ← Station Number
PR ← Station Abbreviation
SW ← Sidewalk (or CW=Crosswalk, VW=Veloweb, RP=Sidewalk Repair, GR=Gap to Remain)
01 ← Improvement Number (matches 1 on Map)

OPCC 1C				1C-CB-CW-042		1C-CB-CW-043	
ENTITY	ITEM	UNIT	COST	QUANTITY	COST	QUANTITY	COST
DALLAS	**SIDEWALK (5')**	LF	$35.00		$0.00		$0.00
DALLAS	**SIDEWALK (10' PATH)**	LF	$70.00		$0.00		$0.00
DALLAS	**REMOVE SIDEWALK**	LF	$20.00		$0.00		$0.00
DALLAS	**RETAINING WALL (1')**	LF	$20.00		$0.00		$0.00
DALLAS	**RETAINING WALL (2')**	LF	$40.00		$0.00		$0.00
DALLAS	**RETAINING WALL (3')**	LF	$75.00		$0.00		$0.00
DALLAS	**RETAINING WALL (4')**	LF	$100.00		$0.00		$0.00
DALLAS	**RETAINING WALL (5')**	LF	$125.00		$0.00		$0.00
DALLAS	**CURB AND GUTTER**	LF	$39.72		$0.00		$0.00
DALLAS	**DRAINAGE INLETS (MODIFY)**	EA	$3,518.00		$0.00		$0.00
DALLAS	**RCP 18"**	LF	$58.00		$0.00		$0.00
TXDOT	**PED RAMPS**	EA	$2,182.75		$0.00		$0.00
TXDOT	**MEDIAN CUT (5')**	LF	$36.15		$0.00		$0.00
TXDOT	**MEDIAN CUT (10' PATH)**	LF	$72.30		$0.00		$0.00
DALLAS	**DRIVEWAY (RESIDENTIAL)**	EA	$3,972.22		$0.00		$0.00
DALLAS	**DRIVEWAY (COMMERCIAL)**	EA	$8,444.44		$0.00		$0.00
N/A	**UTILITY POLE RELOCATED**	EA	$22,000.00		$0.00		$0.00
DALLAS	**MANHOLE ADJUSTMENT**	EA	$572.00	1	$572.00		$0.00
DALLAS	**TREE RELOCATIONS**	EA	$2,768.00		$0.00		$0.00
DALLAS	**TREE REMOVALS**	EA	$886.00		$0.00		$0.00
N/A	**RAILROAD CROSSING**	EA	$120,000.00		$0.00		$0.00
DALLAS	**TRAFFIC SIGNS RELOCATED**	EA	$223.00	2	$446.00	2	$446.00
TXDOT	**TRAFFIC SIGNS NEW**	EA	$650.00	4	$2,600.00	4	$2,600.00
DALLAS	**PAVEMENT MARKINGS (CROSSWALK)**	LF	$9.00	80	$720.00	80	$720.00
DALLAS	**PAVEMENT MARKINGS (STOP BAR)**	LF	$8.00		$0.00		$0.00
N/A	**PAVEMENT MARKINGS (TRIANGLES)**	EA	$60.00	12	$720.00	12	$720.00
TXDOT	**UTILITY BOX RELOCATION**	EA	$729.33	2	$1,458.66	2	$1,458.66
DALLAS	**MEDIAN ISLAND (SEE SHEET[S] THAT FOLLOW FOR MORE INFO)**	EA	SEE OTHER SHEET		$0.00		$0.00
DALLAS	**LIGHT POLE RELOCATION**	EA	$4,758.00		$0.00		$0.00
DALLAS	**FENCE (REMOVE AND REPLACE)**	LF	$53.00		$0.00		$0.00
DALLAS	**FIRE HYDRANT RELOCATED**	EA	$3,640.00		$0.00		$0.00
DALLAS	**PARKING STOP**	EA	$97.00		$0.00		$0.00
N/A	**PED GENERAL LIGHTING (NOT FOR CROSSWALK)**	EA	$21,000.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 2 LANE UNDIVIDED**	EA	$26,435.00		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 3 LANE UNDIVIDED**	EA	$27,182.50		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE UNDIVIDED**	EA	$40,407.50		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 4 LANE DIVIDED**	EA	$41,183.75		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE UNDIVIDED**	EA	$41,839.25		$0.00		$0.00
N/A	**PED CROSSWALK LIGHTING (#1) - 6 LANE DIVIDED**	EA	$42,615.50		$0.00		$0.00
N/A	**RRFB (#7) - 3 LANES W/O MEDIAN**	EA	$24,000		$0.00		$0.00
N/A	**RRFB (#7) - 1 SOLAR SIGN & PUSH BUTTON IN MEDIAN**	EA	$36,000		$0.00		$0.00
N/A	**RRFB (#7) - 2 SOLAR SIGNS & PUSHBUTTON IN MEDIAN**	EA	$48,000		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 3 LANE UNDIVIDED**	EA	$150,000	0.5	$75,000.00	0.5	$75,000.00
N/A	**PED HYBRID BEACON (#9) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00
N/A	**PED HYBRID BEACON (#9) - 6 LANE DIVIDED**	EA	$200,000		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 1 CW**	EA	$9,500		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 2 CW**	EA	$15,500		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 3 CW**	EA	$21,500		$0.00		$0.00
N/A	**APS & COUNTDOWN PED SIGNAL (#10) - 4 CW**	EA	$27,500		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 3 LANE UNDIVIDED**	EA	$150,000		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 4 LANE DIVIDED**	EA	$175,000		$0.00		$0.00
N/A	**PED TRAFFIC SIGNAL (#11) - 6 LANE DIVIDED**	EA	$210,000		$0.00		$0.00

CONSTRUCTION COST (WITHOUT SIGNALS)	TOTAL	$6,516.66	$5,944.66
CONSTRUCTION COST	TOTAL	$81,516.66	$80,944.66
ENGINEERING DESIGN	10%	$8,151.67	$8,094.47
GENERAL LANDSCAPING	4%	$260.67	$237.79
SWPPP	2%	$130.33	$118.89
TRAFFIC CONTROL	3%	$195.50	$178.34
MOBILIZATION	4%	$284.13	$259.19
FEDERAL CONTINGENCY	2%	$1,810.78	$1,796.67
OPCC	TOTAL	$92,400.00	$91,700.00
AVERAGE COST PER LF OF SIDEWALK		#DIV/0!	#DIV/0!
GRAND TOTAL FOR GROUP 1C	$1,950,700.00		

Median Island Detailed Estimate - LOCATION 1C-CB-CW-31

Assumptions

along Executive Drive, heading west from Crawford
assume 45 foot long
tear drop shape - will estimate as 2 triangles
asume max width at Crawford as 10 foot wide

	ITEM NO	ITEM UNIT	QTY	UNIT COST	TOTAL
remove existing conc pavement (will equal median area plus couple of feet for curb and gutter)	0104 6001	SF	560	$0.49	$274.40
add mediian refuge conc pvmt	356	SF	450	$6.00	$2,700.00
add conc curb across median refuge	407	LF	20	$32.00	$640.00
conc C & G along Executive	407	LF	110	$32.00	$3,520.00
add striping west of tear drop directing traffic around median refuge	0666 6035	LF	200	$0.84	$168.00
add signs for median - assume 2 and then one on median	0636 & 0646	EACH	2	$650.00	$1,300.00
					$8,602.40

area of median - assume 2 triangles
0.5 x 45 x 10 x 2 = 450 sf

area of removal
add 45 lf x 2 sides plus 20 feet for median nose to median area
= 450 + [(45 x 2) + 20] = 560 SF