

7.0 RECOMMENDATIONS AND PROJECT LIST

A series of infrastructure improvements are recommended to enhance the safety and ease of pedestrian access to transit. The recommended improvements are focused in locations previously identified as higher-ridership areas by the existence of bus shelters and benches. Each location contains a group of improvements to better pedestrian access. Improvements include all or a combination of sidewalk enhancements, curb ramps, modifications to existing traffic signals to include pedestrian signal heads and/or the installation of a HAWK Pedestrian Activated Signal.

7.1 MOBBERLY AVENUE CORRIDOR

Seven sets of projects are proposed along the Mobberly Avenue corridor. The project sets are shown in **Figures 7A through 7G**. Overall the corridor includes the following improvements:

- 14,795 LF of Sidewalks + Curb Ramps
- Pedestrian Upgrades at 2 Signalized Intersections
 - Intersection of South High Street and South Street
 - Intersection of Fifth Street and East Whaley Street
- 2 Pedestrian HAWK Signals along
 - Mobberly Avenue at the Main Post Office
 - South High Street at Work Force Solutions
- 1 Traditional Traffic Signal at
 - Intersection of Green Street and Avalon Avenue
- Total Estimated Construction Cost = \$ 1,111,480. Detailed breakdowns of the expected construction costs can be found in **Appendix C**.

7.2 COTTON STREET CORRIDOR

Two sets of projects are proposed along the Cotton Street corridor. These improvements are shown in **Figures 7H and 7I** and include:

- 2,180 LF of Sidewalks + Curb Ramps
- Pedestrian Upgrades at 1 Signalized Intersection
 - Intersection of Spur 63 and West Marshall Avenue
- Total Estimated Construction Cost = \$ 94,630. Detailed breakdowns of the expected construction costs can be found in **Appendix C**.

7.3 FOURTH STREET CORRIDOR

Five sets of projects are proposed along the Fourth Street corridor. The project sets are shown in **Figures 7J through 7N**. Overall the corridor includes the following improvements:

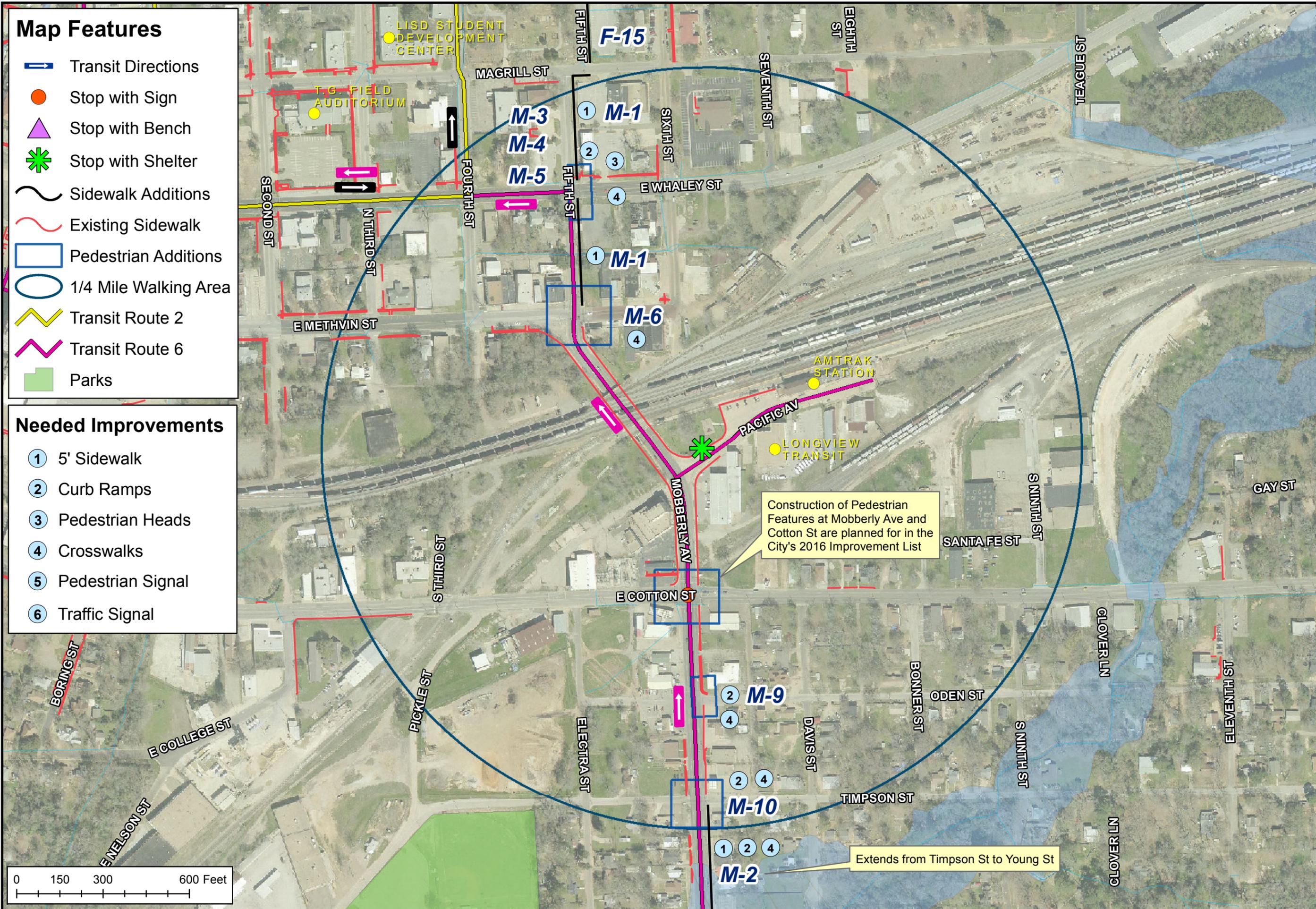
- 20,064 LF of Sidewalks + Curb Ramps
- 1 Traditional Traffic Signal at
 - Intersection of Fourth Street and Clinic Drive
- Total Estimated Construction Cost = \$ 833,090. Detailed breakdowns of the expected construction costs can be found in **Appendix C**.

Map Features

-  Transit Directions
-  Stop with Sign
-  Stop with Bench
-  Stop with Shelter
-  Sidewalk Additions
-  Existing Sidewalk
-  Pedestrian Additions
-  1/4 Mile Walking Area
-  Transit Route 2
-  Transit Route 6
-  Parks

Needed Improvements

-  1 5' Sidewalk
-  2 Curb Ramps
-  3 Pedestrian Heads
-  4 Crosswalks
-  5 Pedestrian Signal
-  6 Traffic Signal



F&N JOB NO. LNG13368	DATE: February, 2014	SCALE: 3,600	DESIGNED: KRS	DRAFTED: BLG
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Longview Pedestrian Access Study

Moberly Ave and Pacific Ave



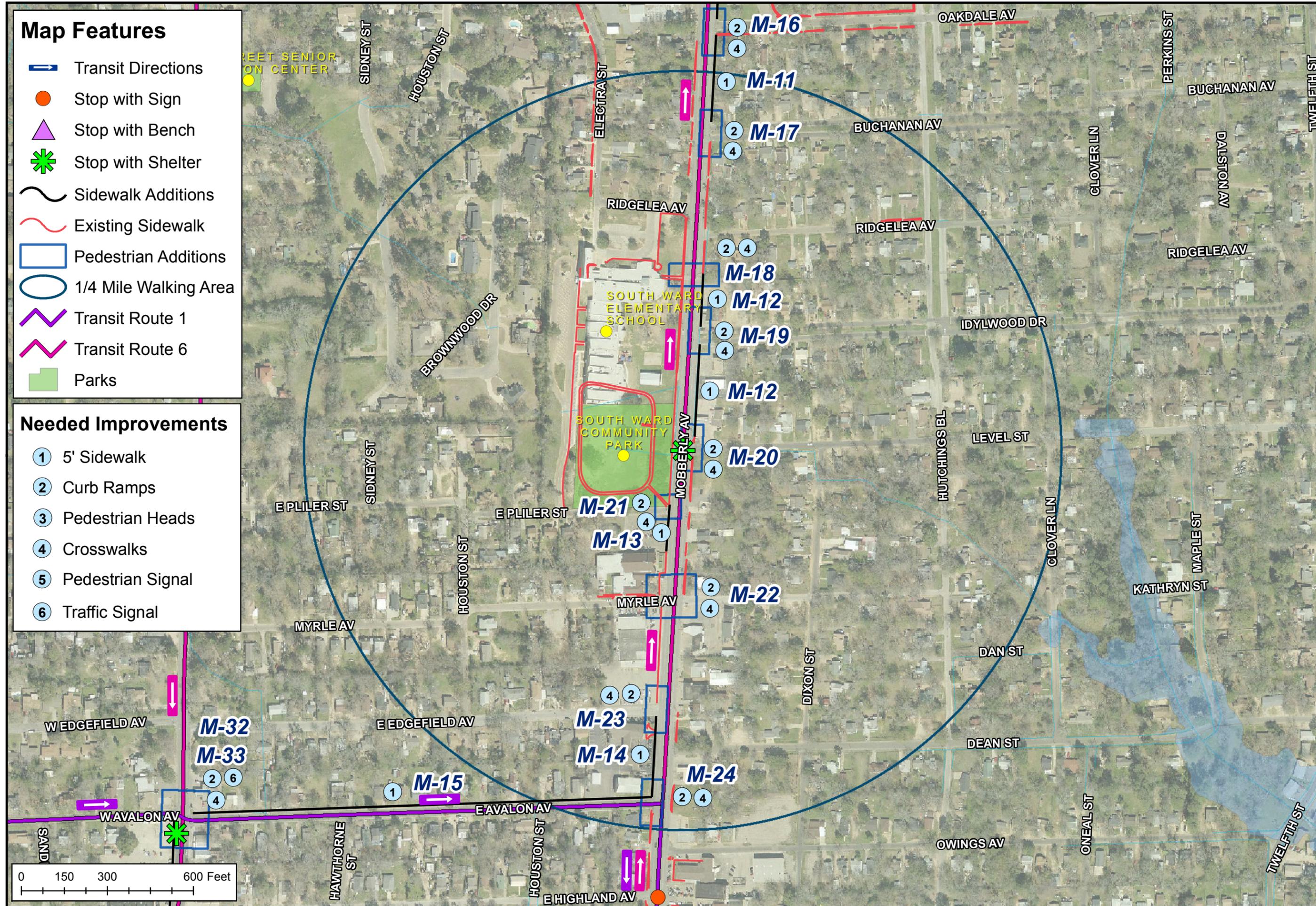
FIGURE
7A

Map Features

- Transit Directions
- Stop with Sign
- Stop with Bench
- Stop with Shelter
- Sidewalk Additions
- Existing Sidewalk
- Pedestrian Additions
- 1/4 Mile Walking Area
- Transit Route 1
- Transit Route 6
- Parks

Needed Improvements

- 5' Sidewalk
- Curb Ramps
- Pedestrian Heads
- Crosswalks
- Pedestrian Signal
- Traffic Signal



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Longview Pedestrian Access Study

Moberly Ave and Level St



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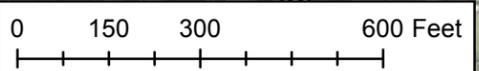
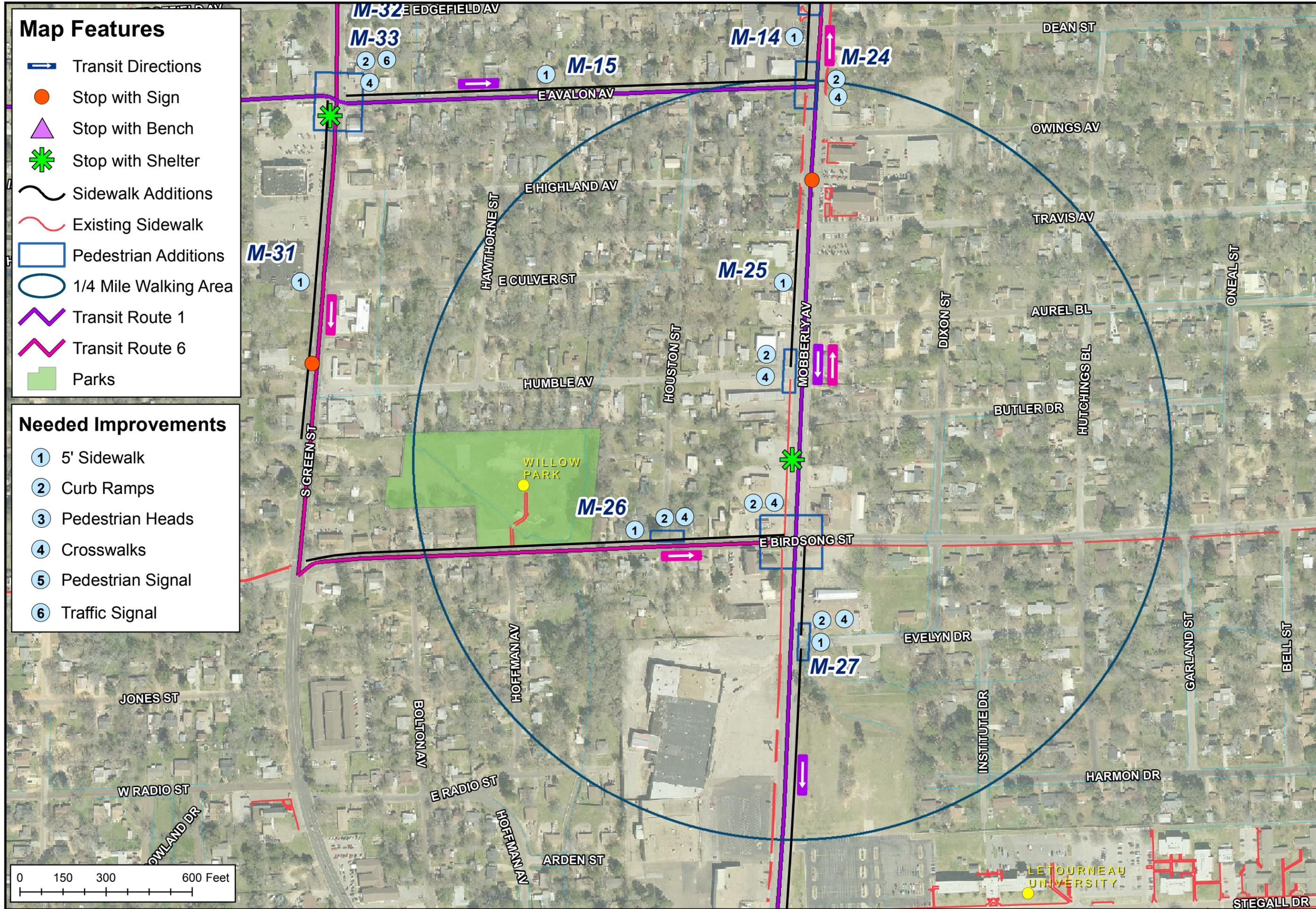
FIGURE
7B

Map Features

- Transit Directions
- Stop with Sign
- Stop with Bench
- Stop with Shelter
- Sidewalk Additions
- Existing Sidewalk
- Pedestrian Additions
- 1/4 Mile Walking Area
- Transit Route 1
- Transit Route 6
- Parks

Needed Improvements

- 5' Sidewalk
- Curb Ramps
- Pedestrian Heads
- Crosswalks
- Pedestrian Signal
- Traffic Signal



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Longview Pedestrian Access Study

Moberly Ave Just North of Birdsong St



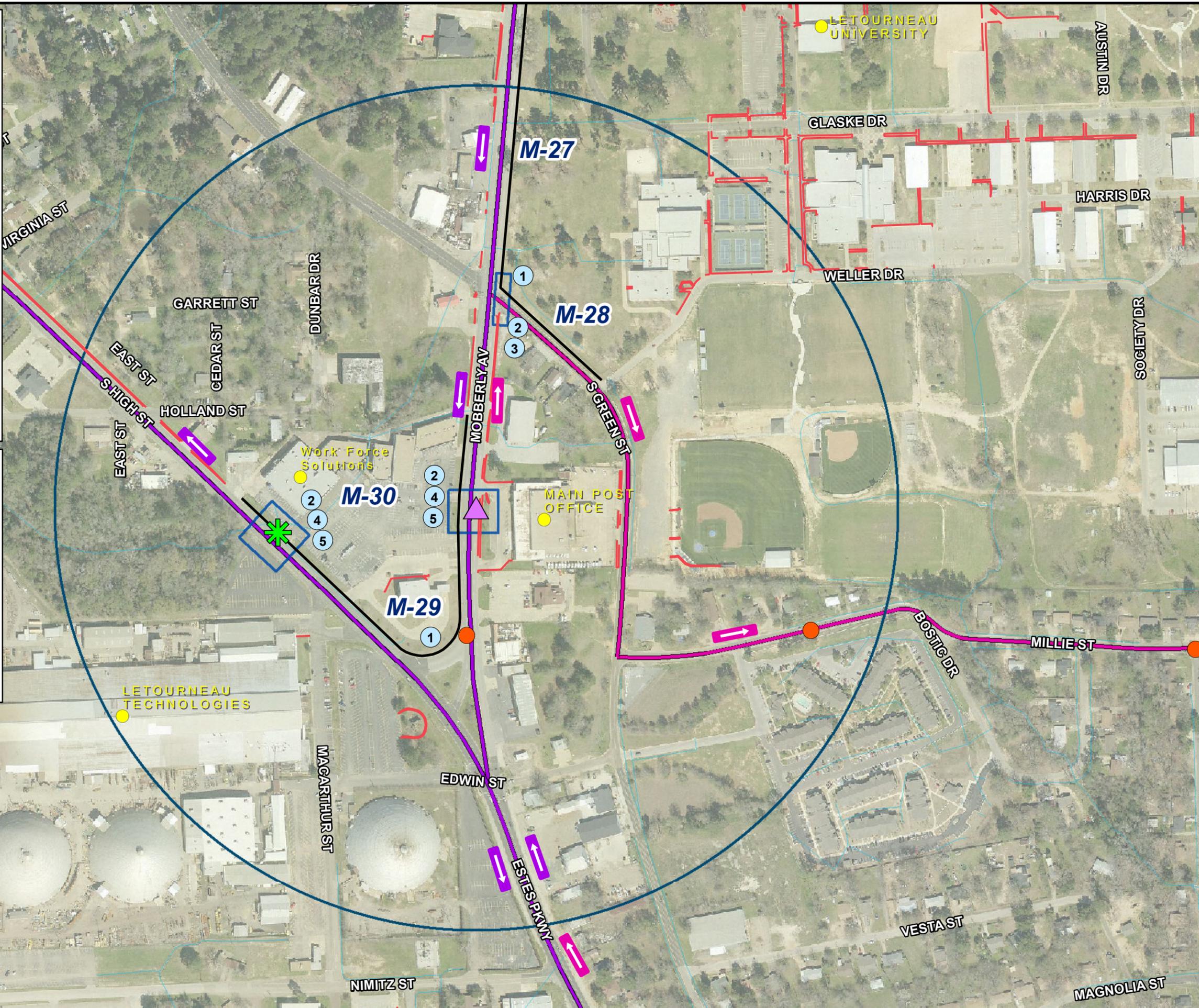
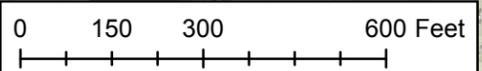
FIGURE
7C

Map Features

-  Transit Directions
-  Stop with Sign
-  Stop with Bench
-  Stop with Shelter
-  Sidewalk Additions
-  Existing Sidewalk
-  Pedestrian Additions
-  1/4 Mile Walking Area
-  Transit Route 1
-  Transit Route 6
-  Parks

Needed Improvements

-  1 5' Sidewalk
-  2 Curb Ramps
-  3 Pedestrian Heads
-  4 Crosswalks
-  5 Pedestrian Signal
-  6 Traffic Signal



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Longview Pedestrian Access Study

Moberly Ave at Main Post Office



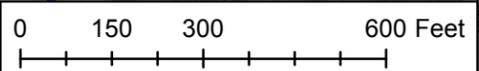
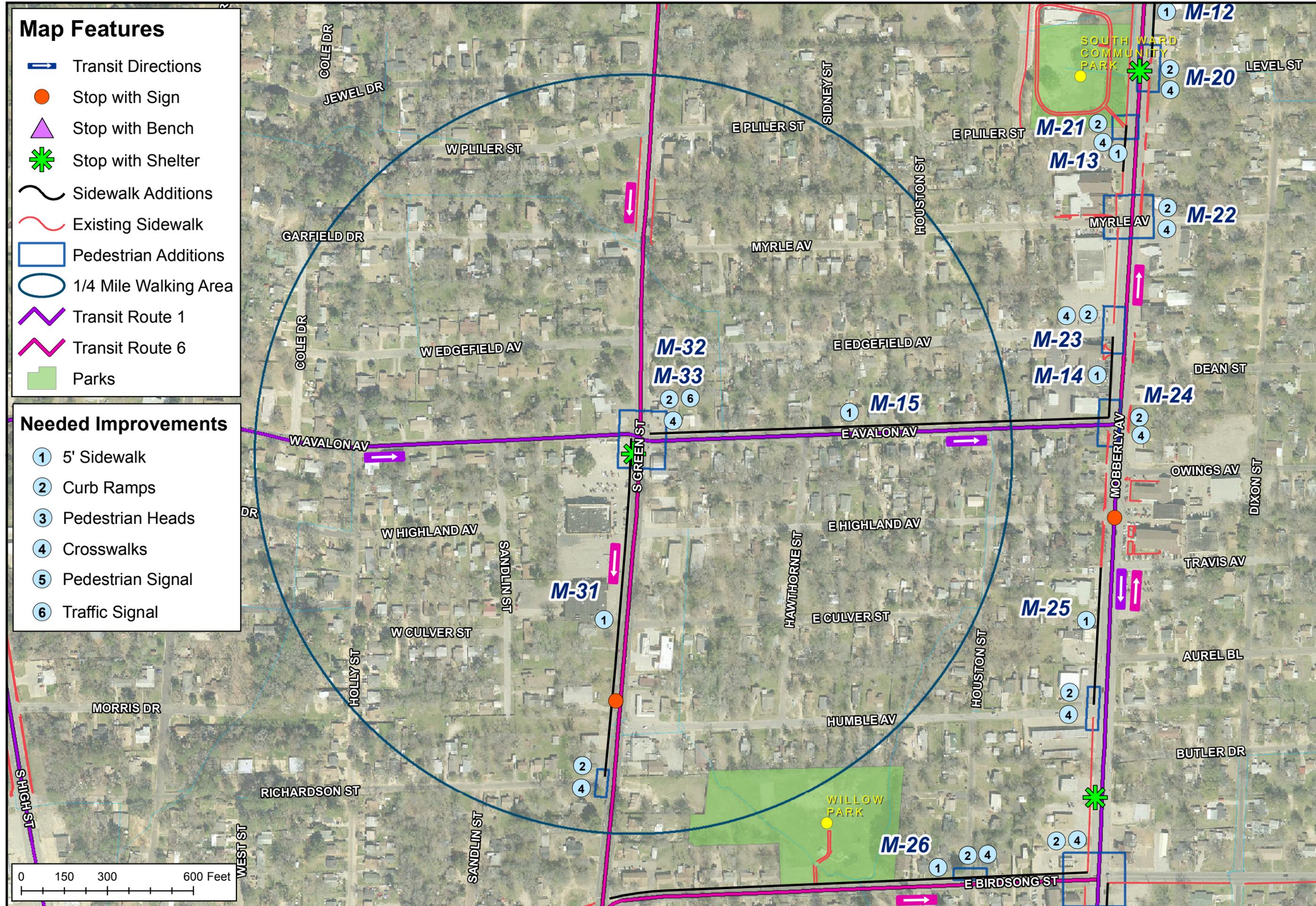
FIGURE
7D

Map Features

- Transit Directions
- Stop with Sign
- Stop with Bench
- Stop with Shelter
- Sidewalk Additions
- Existing Sidewalk
- Pedestrian Additions
- 1/4 Mile Walking Area
- Transit Route 1
- Transit Route 6
- Parks

Needed Improvements

- 5' Sidewalk
- Curb Ramps
- Pedestrian Heads
- Crosswalks
- Pedestrian Signal
- Traffic Signal



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Longview Pedestrian Access Study

Green St and Avalon Ave



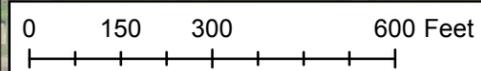
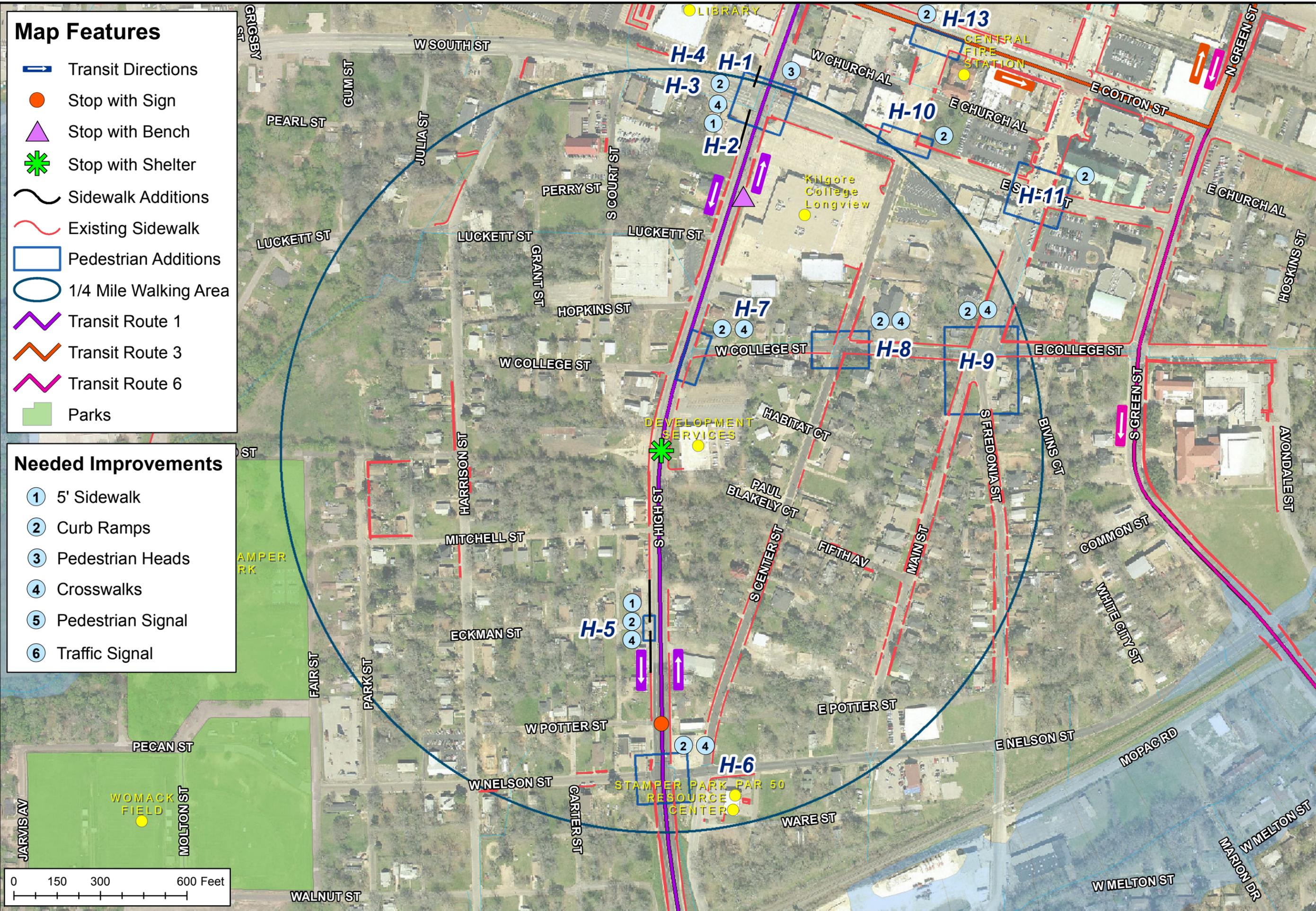
FIGURE
7E

Map Features

-  Transit Directions
-  Stop with Sign
-  Stop with Bench
-  Stop with Shelter
-  Sidewalk Additions
-  Existing Sidewalk
-  Pedestrian Additions
-  1/4 Mile Walking Area
-  Transit Route 1
-  Transit Route 3
-  Transit Route 6
-  Parks

Needed Improvements

-  1 5' Sidewalk
-  2 Curb Ramps
-  3 Pedestrian Heads
-  4 Crosswalks
-  5 Pedestrian Signal
-  6 Traffic Signal



F&N JOB NO. LNG13388	DATE: February, 2014	SCALE: 3,600	DESIGNED: KRS	DRAWN: BLG
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Longview Pedestrian Access Study

High and College St

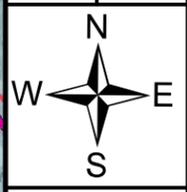


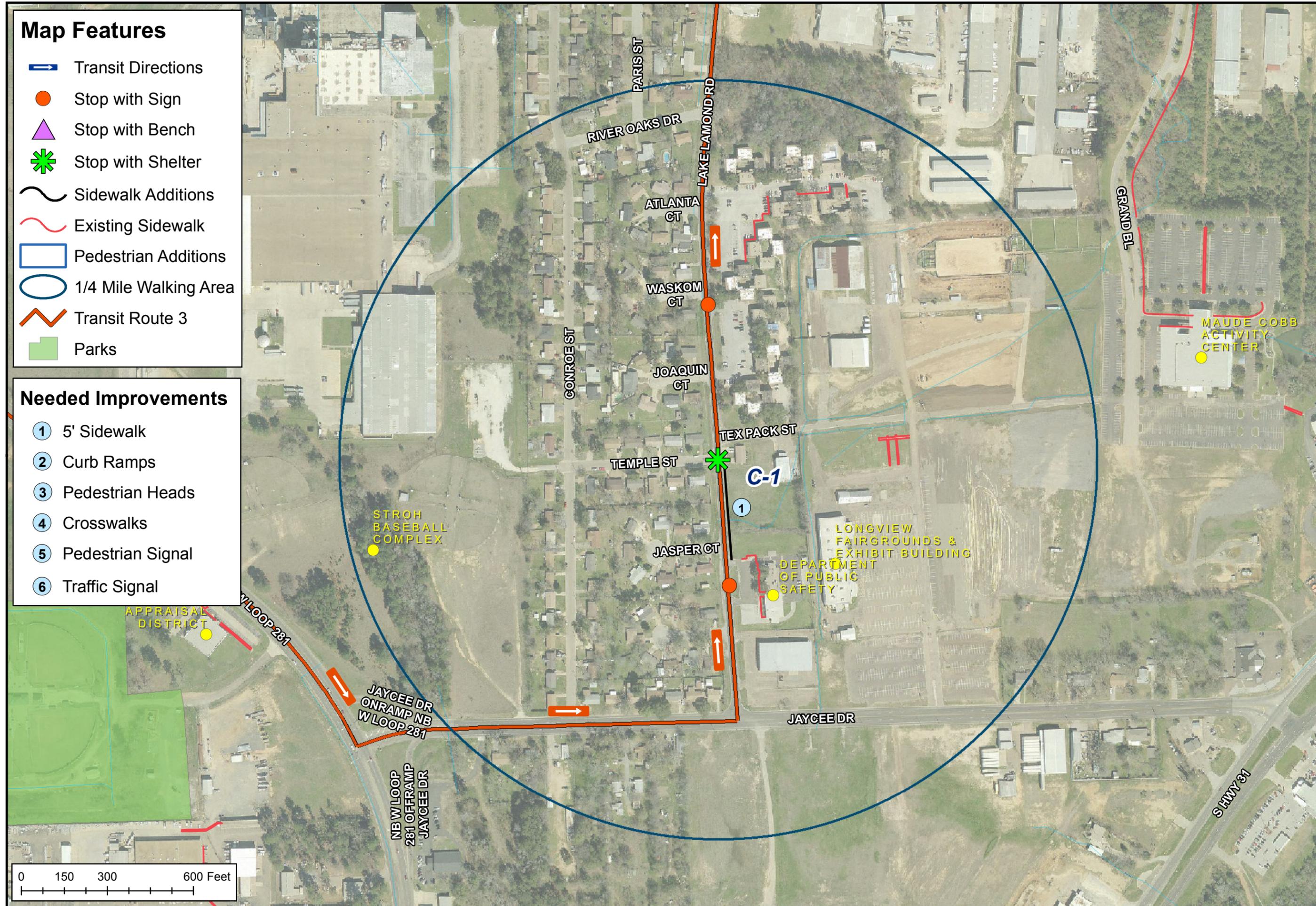
FIGURE
7F

Map Features

-  Transit Directions
-  Stop with Sign
-  Stop with Bench
-  Stop with Shelter
-  Sidewalk Additions
-  Existing Sidewalk
-  Pedestrian Additions
-  1/4 Mile Walking Area
-  Transit Route 3
-  Parks

Needed Improvements

-  1 5' Sidewalk
-  2 Curb Ramps
-  3 Pedestrian Heads
-  4 Crosswalks
-  5 Pedestrian Signal
-  6 Traffic Signal



F&N JOB NO.	LNG13388
DATE	February, 2014
SCALE	3,600
DESIGNED	KRS
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Longview Pedestrian Access Study
Lake Lamond Rd and Temple St



FIGURE
7H

Map Features

-  Transit Directions
-  Stop with Sign
-  Stop with Bench
-  Stop with Shelter
-  Sidewalk Additions
-  Existing Sidewalk
-  Pedestrian Additions
-  1/4 Mile Walking Area
-  Transit Route 3
-  Transit Route 5
-  Parks

Needed Improvements

-  1 5' Sidewalk
-  2 Curb Ramps
-  3 Pedestrian Heads
-  4 Crosswalks
-  5 Pedestrian Signal
-  6 Traffic Signal



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Longview Pedestrian Access Study
Marshall Ave and Fagan St



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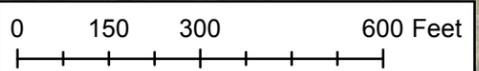
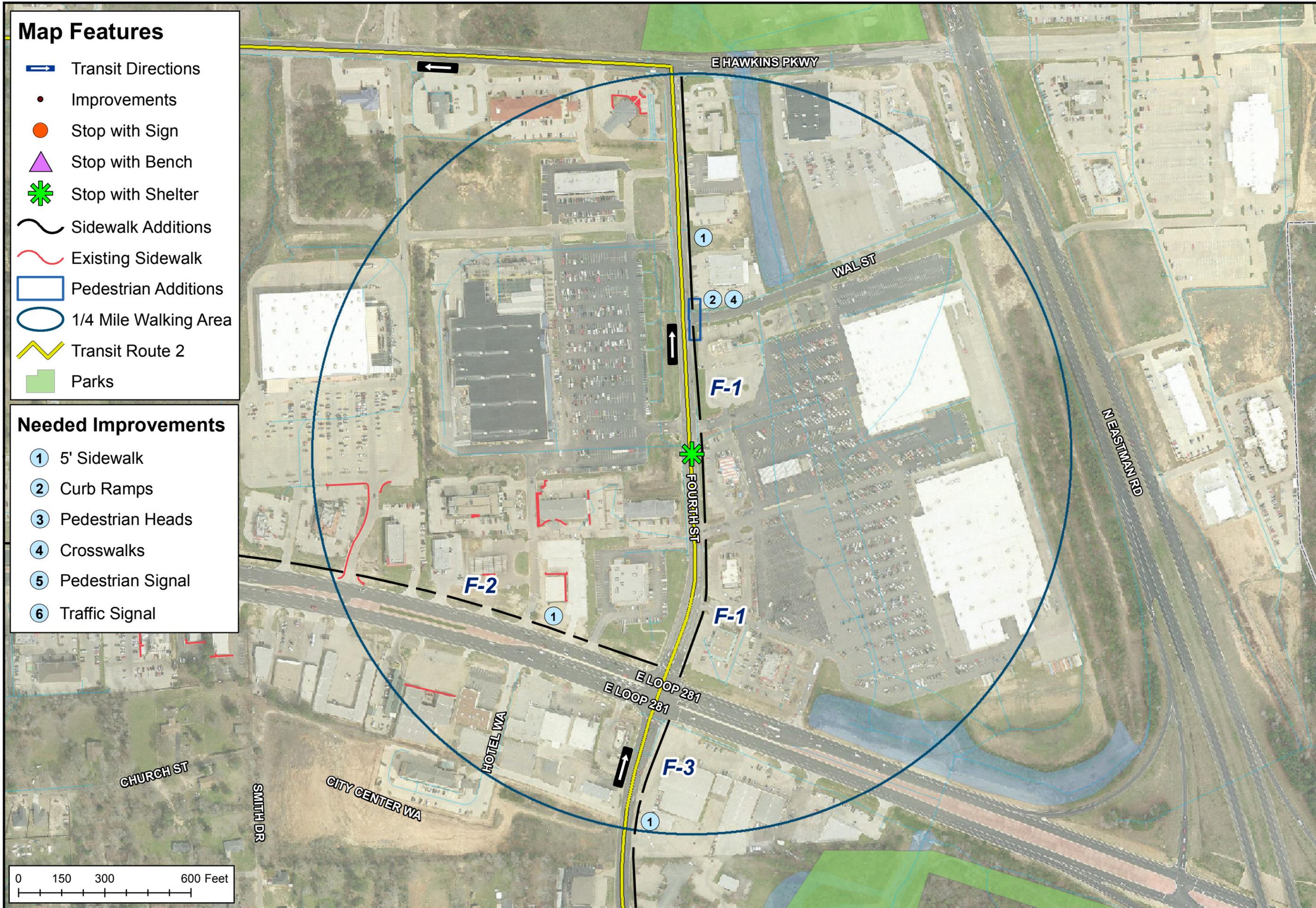
FIGURE
71

Map Features

- Transit Directions
- Improvements
- Stop with Sign
- Stop with Bench
- Stop with Shelter
- Sidewalk Additions
- Existing Sidewalk
- Pedestrian Additions
- 1/4 Mile Walking Area
- Transit Route 2
- Parks

Needed Improvements

- 5' Sidewalk
- Curb Ramps
- Pedestrian Heads
- Crosswalks
- Pedestrian Signal
- Traffic Signal



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Longview Pedestrian Access Study
Fourth St at Whataburger



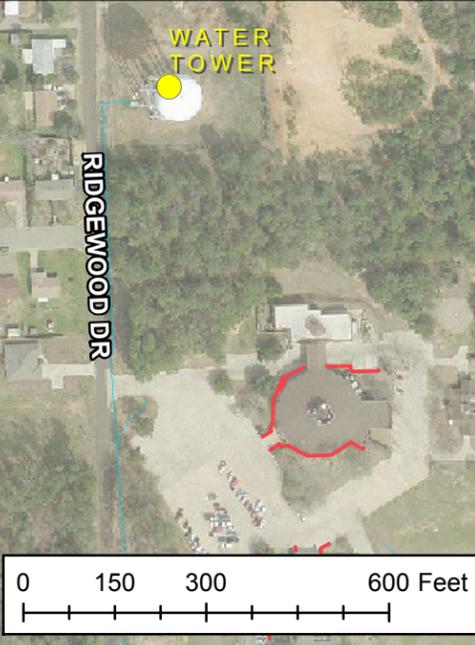
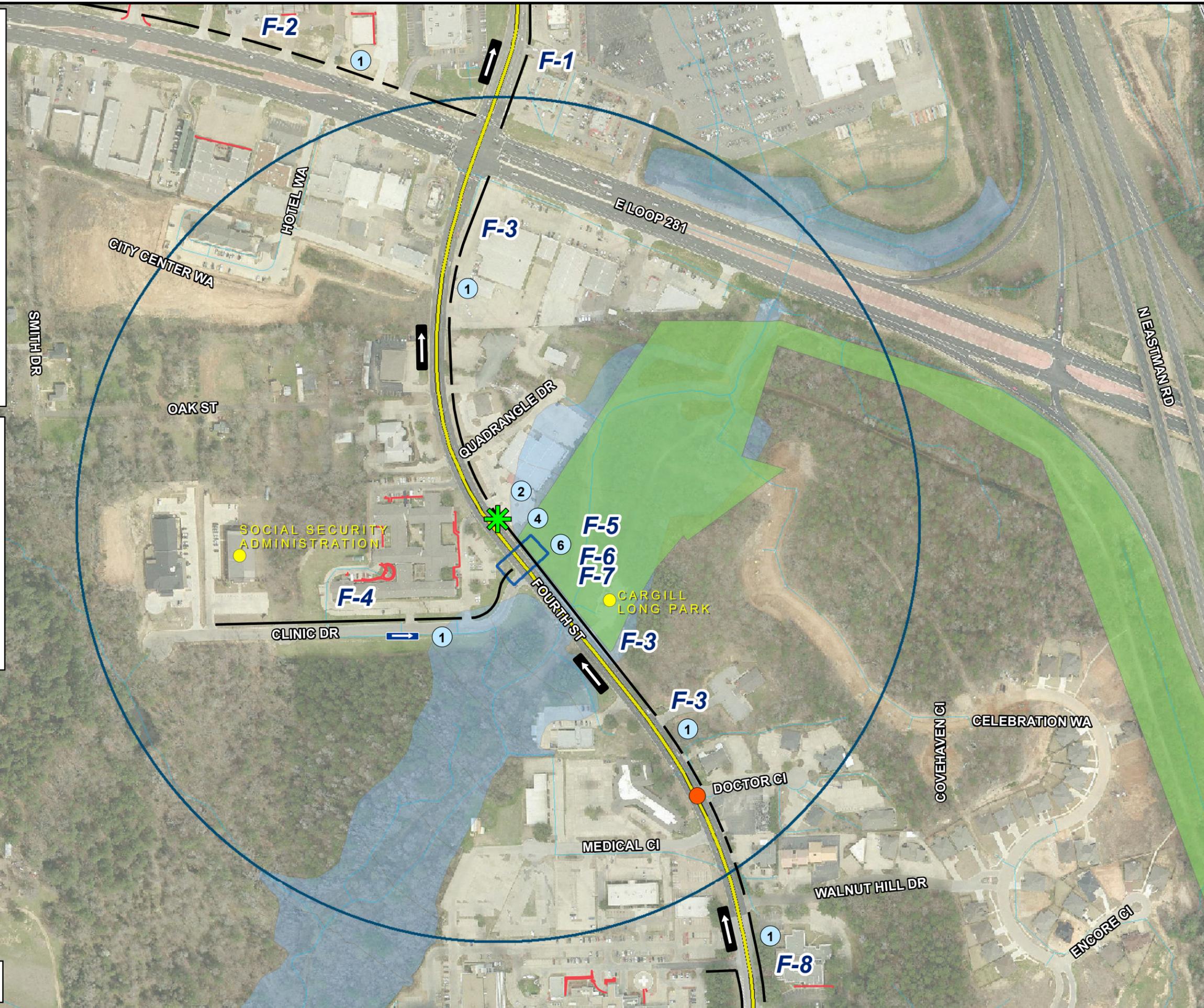
FIGURE
7J

Map Features

-  Transit Directions
-  Stop with Sign
-  Stop with Bench
-  Stop with Shelter
-  Sidewalk Additions
-  Existing Sidewalk
-  Pedestrian Additions
-  1/4 Mile Walking Area
-  Transit Route 2
-  Parks

Needed Improvements

-  1 5' Sidewalk
-  2 Curb Ramps
-  3 Pedestrian Heads
-  4 Crosswalks
-  5 Pedestrian Signal
-  6 Traffic Signal



F&N JOB NO:	LNG13388
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SCALE:	3,600
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Longview Pedestrian Access Study
Fourth St and Clinic Dr



FIGURE
7K

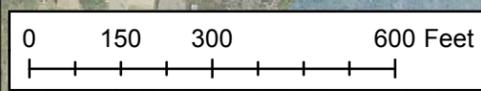
Map Features

- Transit Directions
- Stop with Sign
- Stop with Bench
- Stop with Shelter
- Sidewalk Additions
- Existing Sidewalk
- Pedestrian Additions
- 1/4 Mile Walking Area
- Transit Route 2
- Parks

Needed Improvements

- ① 5' Sidewalk
- ② Curb Ramps
- ③ Pedestrian Heads
- ④ Crosswalks
- ⑤ Pedestrian Signal
- ⑥ Traffic Signal

Extends from Hollybrook Dr to Coleman Dr



F&N JOB NO. LNG13388	DATE: February, 2014	SCALE: 3,600	DESIGNED: KRS	DRAFTED: BLG	FILE: Fourth_Hollybrook.mxd
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Longview Pedestrian Access Study
Fourth St and Hollybrook Dr



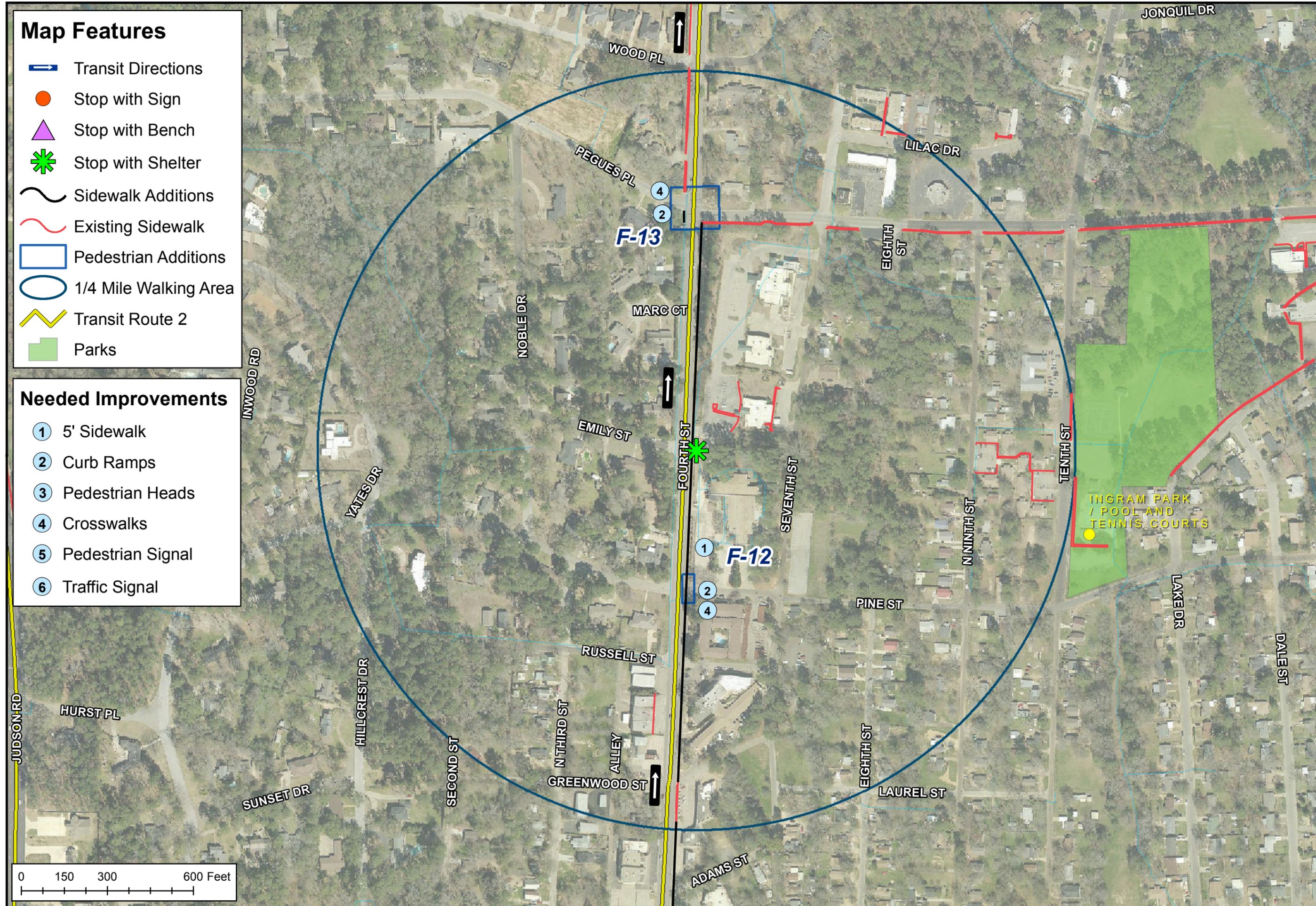
FIGURE
7L

Map Features

-  Transit Directions
-  Stop with Sign
-  Stop with Bench
-  Stop with Shelter
-  Sidewalk Additions
-  Existing Sidewalk
-  Pedestrian Additions
-  1/4 Mile Walking Area
-  Transit Route 2
-  Parks

Needed Improvements

-  1 5' Sidewalk
-  2 Curb Ramps
-  3 Pedestrian Heads
-  4 Crosswalks
-  5 Pedestrian Signal
-  6 Traffic Signal



F&N JOB NO. LNG13388	DATE: February, 2014	SCALE: 3,600	DESIGNED: KRS	DRAFTED: BLG	FILE: Fourth_Emily.mxd
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Longview Pedestrian Access Study

Fourth St and Emily St



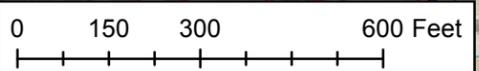
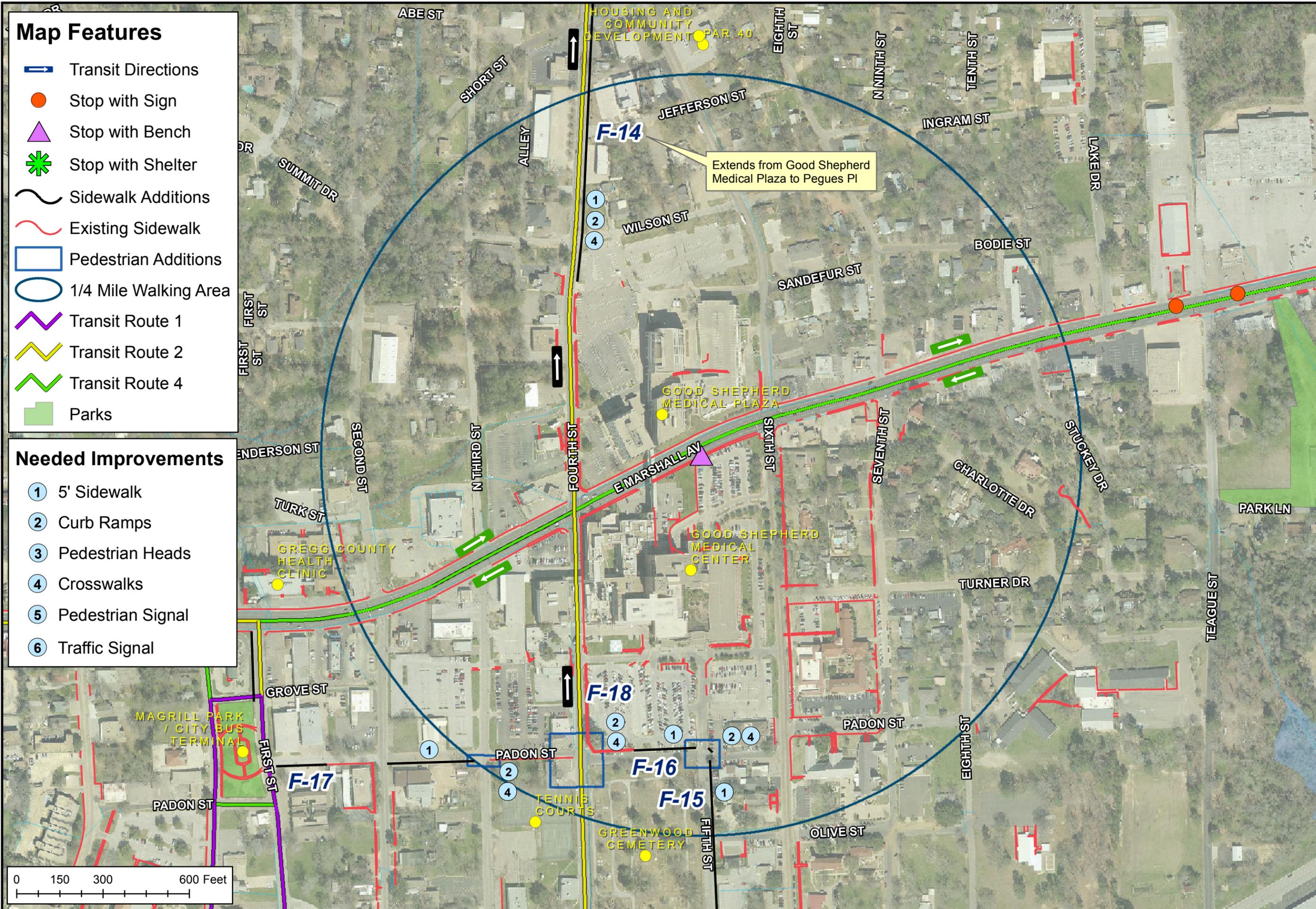
FIGURE
7M

Map Features

- Transit Directions
- Stop with Sign
- Stop with Bench
- Stop with Shelter
- Sidewalk Additions
- Existing Sidewalk
- Pedestrian Additions
- 1/4 Mile Walking Area
- Transit Route 1
- Transit Route 2
- Transit Route 4
- Parks

Needed Improvements

- 5' Sidewalk
- Curb Ramps
- Pedestrian Heads
- Crosswalks
- Pedestrian Signal
- Traffic Signal



F&N JOB NO.:	LNG13388
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SCALE:	3,600
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DRAFTED:	BLG
FILE:	MarshallAtGoodShepherd.mxd

Longview Pedestrian Access Study

Marshall St at Good Shepherd Medical Center



FIGURE
7N

7.4 OTHER IMPROVEMENTS TO EXISTING FACILITIES

During the sidewalk inventory, the existing sidewalks and ramps received a rating based on their current conditions. Sidewalks with little to no cracking were rated ‘Good’ and were not identified for repairs. Sidewalks with minor cracking, but no disconnected surfaces, received a rating of ‘Fair’ and were not identified for repairs. However, sidewalks with major cracking and/or upheaved surfaces were rated ‘Poor’ and identified for replacement. Location maps highlighting the recommended areas for replacement can be found in **Appendix A**. The total estimated cost for these repairs is \$476,640. An itemized summary by corridor is shown in **Table 2** and the detailed breakdown of the expected construction costs can be found in **Appendix C**.

Table 2 - Areas of Existing Sidewalk Replacement by Corridor

Area of Replacement	Length	Estimated Cost
MOBBERLY AVENUE CORRIDOR		
Methvin Street to Cotton Street	2,075 LF	\$ 83,000
Cotton Street to Timpson Street	850 LF	\$ 34,000
Timpson Street to Young Street	1,200 LF	\$ 48,000
Along Young Street (Between Green Street and Mobberly Ave)	480 LF	\$ 19,200
Young Street to E Plilier Street	3,000 LF	\$ 120,000
Green Street to High Street	275 LF	\$ 11,000
	<i>Contingency (20%)</i>	<i>\$ 63,020</i>
Corridor’s Estimated Repair Cost		\$ 378,240
COTTON STREET CORRIDOR		
E College Street to Mobberly Ave	1,350 LF	\$ 54,000
	<i>Contingency (20%)</i>	<i>\$ 10,800</i>
Corridor’s Estimated Repair Cost		\$ 64,800
FOURTH STREET CORRIDOR		
Delwood Drive to Coleman Drive	700 LF	\$ 28,000
	<i>Contingency (20%)</i>	<i>\$ 5,600</i>
Corridor’s Estimated Repair Cost		\$ 33,600
TOTAL REPLACEMENT COST		\$ 476,640

7.5 PRIORITIZATION OF THE PROJECT LIST

The projects described in Sections 6.1, 6.2 and 6.3 were identified as improvements needed to facilitate better pedestrian access to transit. Despite their need, it is necessary to prioritize the projects in order to allocate the funds available for transit. Based on discussions with key stakeholders, the set of criteria listed below was defined for this study. Each evaluation criteria was assigned a value based upon its comparative importance to the other

criteria. The weighted values for each are shown in parentheses. Every proposed project was evaluated and scored based on the following criteria.

7.5.1 Economic Benefit and Feedback from the Public

This criterion captures the project's benefit to the transit rider. Projects that improve connectivity to large scale employers and/or major trip generators (i.e. Social Security Office) receive a higher rank in this criterion. Also, projects that infill missing ADA features and provide access for traditional Paratransit users to the fixed route system receive a higher rank in this criterion. Another measure considered when formulating this weight was the feedback received through this study's public outreach. Current and future transit users provided insight into specific areas and/or projects they would like implemented to improve their use of the system. Their thoughts and opinions were captured through on-board surveys, interviews, and personal interaction at the public forum held in early November. Projects identified through these outreach efforts receive a higher rank in this criterion.

7.5.2 Capital Cost

Construction costs are usually a key factor for ranking projects. Operationally, when limited funding is available, it better to implement several projects versus one improvement with high construction costs. Multiple projects spread the improvements further and therefore positively impacts more transit users. For the purpose of this study, projects with lower costs received a higher cost weight than projects with higher construction cost estimates.

7.5.3 Ease of Implementation

The Ease of Implementation measure includes environmental impacts and right-of-way (ROW) requirements. Projects with environmental abatement needs or concerns will require additional effort and/or costs to construct. Likewise, projects that require additional ROW will add time to an overall implementation plan. The additional time and costs these factors create need to be considered when developing a prioritized project list. Projects with these factors have a lower prioritization (as it related to 'Ease of Implementation') versus ones that provide access where none exist today, have no environmental impacts, and can be constructed without major ROW concerns.

7.5.4 Safety

Safety factor is an important criterion to assess the relative importance of one project over another. The adjacent roadway's traffic volumes, as well as the boarding/aligning data available in the area, were used as our measure. If an improvement is located near or adjacent to a high volume roadway, it received a higher safety weight. Likewise, if the improvement is located in an area of historically higher ridership, it received a higher safety weight. This approach allowed those projects located near high volume roadways, which experience higher ridership

volumes, to receive a higher priority ranking in safety. Since safety is the highest weighted criteria, projects that rank high here will be among the top priorities for the Longview Transit.

7.5.5 Final Ranking of Proposed Improvements

After defining the evaluation criteria, weights were established by the project’s key stakeholders. The weights are based on a scale of 100. Safety received the highest weight with 40 points. Capital Cost ranked second in importance with a weight of 25 points. Economic Benefit and Feedback from the Public received 20 points. And finally, Ease of Implementation was assigned a weighted factor of 15 points. **Table 3** outlines how the maximum points for each criterion are subdivided and assigned.

Table 3 • Itemization of Evaluation Criteria and Contributing Measures

Evaluation Criteria	Max Points	Point Value and Explanation	
Safety	40	25	25 Major Arterial (4-5 lanes)
			18 Minor Arterial (2-4 lanes)
12 Collector (2-3 lanes)			
5 Residential Collector (2 lanes)			
Proximity to High Volume Roadways			
High Propensity for Ridership	15	15 Stop with Shelter	
		10 Stop with Bench	
		5 Stop with Sign	
Capital Cost	25	25 \$0 - \$50k	
		18 \$50k - \$100k	
		12 \$100k - \$200k	
		5 \$200k - \$300k	
		0 Greater than \$300k	
Economic Benefit	20	10 Dependent on # Schools, Parks, Retail	
		8 Dependent on Value Added to ADA	
		2 If Public Input Provided	
Connectivity to Major Generator			
ADA Compliance			
Public Outreach			
Ease of Implementation	15	15 No Potential Conflicts	
		10 One Potential Conflict	
		5 Two Potential Conflicts	
		0 Three or More Potential Conflicts	
Total Points	100		

The proposed projects were evaluated and scored based on the evaluation criteria. Detailed analysis of the prioritization is included in **Appendix C**, which shows the score each project received compared to the maximum

available points. **Table 4** summarizes the overall prioritized ranking, while **Table 5** breaks the ranked projects into their respective corridors.

Table 4 • Final Prioritized Ranking of Proposed Improvements

Rank	Pedestrian Transit Area /Proposed Improvement	Score	Estimated Cost
1	HIGH ST @ KILGORE COLLEGE H-10,H-11,H-12,H-13	81	\$ 14,970
2	HIGH ST @ COLLEGE ST H-1,H-2,H-3,H-4,H-5,H-6,H-7,H-8,H-9	81	\$ 52,010
3	LAKE LAMOND @ TEMPLE ST C-1	79	\$ 10,770
4	MARSHALL ST@ FAGAN ST C-2,C-3,C-4,C-5,C-6	79	\$ 83,860
5	FOURTH ST @ WHATABURGER F-1,F-2	75	\$ 131,420
6	FOURTH ST @ EMILY F-12,F-13	74	\$ 71,880
7	MOBBERLY AVE @ LEVEL ST M-11,M-12,M-13,M-14,M-15,M-16,M-17,M-18,M-19, M-20,M-21,M-22,M-23,M-24	73	\$ 112,950
8	MOBBERLY AVE @ N. OF BIRDSONG M-25,M-26,M-27	73	\$ 150,740
9	MOBBERLY AVE @ PACIFIC AVE M-1,M-2,M-3,M-4,M-5,M-6,M-9,M-10	65	\$ 123,300
10	FOURTH ST @ HOLLYBROOK F-8,F-9,F-10,F-11	65	\$ 198,510
11	GREEN ST @ AVALON AVE M-31,M-32,M-33	63	\$ 248,520
12	MOBBERLY AVE @ MAIN POST OFFICE M-28,M-29,M-30	62	\$ 408,990
13	MARSHALL ST @ GOOD SHEPHERD F-14,F-15,F-16,F-17,F-18	54	\$ 123,220
14	FOURTH ST @ CLINIC F-3,F-4,F-5,F-6,F-7	53	\$ 308,060
Total Estimated Construction Cost			\$ 2,039,200

Table 5 • Prioritized Ranking of Proposed Improvements by Corridor

Rank	Pedestrian Transit Area /Proposed Improvement	Score	Estimated Cost
MOBBERLY AVENUE CORRIDOR			
1	HIGH ST @ KILGORE COLLEGE H-10,H-11,H-12,H-13	81	\$ 14,970
2	HIGH ST @ COLLEGE ST H-1,H-2,H-3,H-4,H-5,H-6,H-7,H-8,H-9	81	\$ 52,010
7	MOBBERLY AVE @ LEVEL ST M-11,M-12,M-13,M-14,M-15,M-16,M-17,M-18,M-19, M-20,M-21,M-22,M-23,M-24	73	\$ 112,950
8	MOBBERLY AVE @ N. OF BIRDSONG M-25,M-26,M-27	73	\$ 150,740
9	MOBBERLY AVE @ PACIFIC AVE M-1,M-2,M-3,M-4,M-5,M-6,M-7,M-8,M-9,M-10	65	\$ 123,300
11	GREEN ST @ AVALON AVE M-31,M-32,M-33	63	\$ 248,520
12	MOBBERLY AVE @ MAIN POST OFFICE M-28,M-29,M-30	62	\$ 408,990
Corridor’s Estimated Construction Cost			\$ 1,111,480
COTTON STREET CORRIDOR			
3	LAKE LAMOND @ TEMPLE ST C-1	79	\$ 10,770
4	MARSHALL ST@ FAGAN ST C-2,C-3,C-4,C-5,C-6	79	\$ 83,860
Corridor’s Estimated Construction Cost			\$ 94,630
FOURTH STREET CORRIDOR			
5	FOURTH ST @ WHATABURGER F-1,F-2	75	\$ 131,420
6	FOURTH ST @ EMILY F-12,F-13	74	\$ 71,880
10	FOURTH ST @ HOLLYBROOK F-8,F-9,F-10,F-11	65	\$ 198,510
13	MARSHALL ST @ GOOD SHEPHERD F-14,F-15,F-16,F-17,F-18	54	\$ 123,220
14	FOURTH ST @ CLINIC F-3,F-4,F-5,F-6,F-7	53	\$ 308,060
Corridor’s Estimated Construction Cost			\$ 833,090

Based upon the scoring results presented in **Table 4**, the projects were separated into short, medium, and long range implementation windows. Short range projects are defined as improvements planned for implementation in the next two years. The medium range improvements are slated for construction within two to five years. And finally projects classified as long range improvements will likely be in place in a five- to ten-year timeframe. Chapter 8 discusses the funding options and timeframes for each project.