Draft Environmental Assessment

US 77: From South of FM 66 to North of McMillan Street
CSJ(s): 0048-03-050 & 0048-03-055
Ellis County, Texas

December 2016

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.

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List of Acronyms

AADT	Average Annual Daily Traffic
APE	Area of Potential Effects
ASTM	American Society for Testing and Materials
BMPs	best management practices
BNSF	Burlington Northern and Santa Fe
CFR	Code of Federal Regulations
CSJ	control-section-job
dB	decibel
dB(A)	a-weighted decibel
EA	Environmental Assessment
e.g.	exempli gratia ("for example")
EIS	Environmental Impact Statement
EMST	Ecological Mapping Systems of Texas
FEMA	Federal Emergency Management Agency
FM	Farm-to-Market Road
FHWA	Federal Highway Administration
FWCA	Fish and Wildlife Coordination Act
FONSI	Finding of No Significant Impact
i.e.	id est ("that is" or "in other words")
IH	Interstate Highway
Leq	average or equivalent sound level
LEP	limited English proficiency
MMPA	Marine Mammal Protection Act (MMPA)
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
mph	miles per hour
MS4	Municipal Separate Storm Sewer System
MSAT	mobile source air toxic
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria

NEPA	National Environmental Policy Act
NOI	Notice of Intent
NRHP	National Register of Historic Places
NWP	Nationwide Permit
OHWM	Ordinary High Water Mark
PA	Programmatic Agreement
PALM	Potential Archeological Liability Map
PCN	Preconstruction Notification
PCR	Project Coordination Request
PWC	Parks and Wildlife Code
R	receiver
ROW	right-of-way
RTHL	Recorded Texas Historic Landmarks
SAL	State Antiquities Landmark
SHPO	State Historic Preservation Officer
SW3P	Stormwater Pollution Prevention Plan
TAC	Texas Administrative Code
TAQA	transportation air quality analysis
TCEQ	Texas Commission on Environmental Quality
THC	Texas Historical Commission
TIP	Transportation Improvement Plan
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TxDOT	Texas Department of Transportation
TXNDD	Texas Natural Diversity Database
U.S.	United States
US	U.S. Highway
USACE	U.S. Army Corps of Engineers
U.S. EPA	U.S. Environmental Protection Agency
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
WOUS	Waters of the United States

1 Introduction

The Texas Department of Transportation's (TxDOT's) Dallas District Office proposes replacement of the existing US 77 viaduct with a new northbound bridge at the Union Pacific Railroad (UPRR) and Waxahachie Creek. This project is represented by control-section-job (CSJ) 0048-03-050. The second proposed project, represented by CSJ 0048-03-055, would also include construction of a new southbound bridge parallel and to the west of the proposed northbound bridge along with the reconstruction of existing US 77 (Elm Street) and Monroe Street in downtown Waxahachie to a couplet system from south of Farm to Market road (FM) 66 to North of McMillan Street. A couplet system is often used through downtown areas of smaller cities when two parallel roadways act together by carrying one-way traffic through town. For this portion of the proposed project, the existing US 77 (Elm Street) would carry all northbound traffic and Monroe Street would carry all southbound traffic through downtown Waxahachie rather than each road carrying two-way traffic as they do currently (**Appendix A – Project Location Map**).

The purpose of the Environmental Assessment (EA) is to study the potential environmental consequences of the proposed projects and determine whether such consequences warrant preparation of an Environmental Impact Statement (EIS).

The EA has been prepared pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC] 4321 et seq.), Federal Highway Administration's (FHWA) NEPA-implementing regulations (23 Code of Federal Regulations [CFR] Part 771), and the environmental requirements of TxDOT 43 Texas Administrative Code (TAC) 2.

The Draft EA will be made available for public review and following the public comment period, TxDOT will consider any comments submitted.

2 Project Description

2.1 Existing Facility

The existing US 77(Elm Street) facility between FM 66 to the south and McMillan Street to the north, is a two-lane roadway with 12-foot wide travel lanes, a 16-foot wide middle turn lane, a 10-foot wide discontinuous parking lane, and a 10-foot wide discontinuous sidewalk within a 60-foot right-of-way (ROW). Currently, the US 77 viaduct consists of two 15-foot wide travel lanes and a 5.25-foot wide sidewalk within a 50-foot ROW. The existing Monroe Street consists of two 12-foot wide travel lanes, two 8-foot wide parking lanes, and two 10-foot wide discontinuous sidewalks within a 60-foot ROW. Project Photos are located in **Appendix B** and Schematics and Typical Sections for the existing roadways and the viaduct can be found in **Appendix C and D**.

2.2 Proposed Project

The TxDOT Dallas District Office proposes to: 1) replace the existing U.S. Highway (US) 77 viaduct; 2) construct a new parallel bridge west of the existing viaduct; and 3) reconstruct the existing US 77 and Monroe Street in downtown Waxahachie to a couplet system that would tie into the existing and proposed bridges. In this case, US 77 (Elm Street) would carry all northbound traffic, and Monroe Street would carry all southbound traffic through downtown Waxahachie instead of each roadway carrying both types of traffic. The existing US 77 facilities do not currently include sidewalks or bicycle lanes within the proposed project limits, and while sections of Monroe Street do include sidewalks, they are not contiguous. The limits of the proposed project would extend along US 77 beginning south of FM 66 for approximately 1.2 miles to north of McMillan Street in Waxahachie, Ellis County, Texas (**Appendix A – Project Location Map**). Refer to **Appendix C – Schematic**, and **Appendix D – Typical Sections** for detailed roadway amenities and dimensions. The southern limits include the northern portion of the intersection of College Street, with incorporation of a right turn lane onto US 77 headed north. The northern termini of the project extends to approximately 150 feet north of McMillan Street to tie in the new pavement. This project length allows a complete incorporation of the proposed couplet system with the existing streets, without extending further into the densely developed downtown Waxahachie area.

Because of the urban nature of the area, these limits would represent all of the environmental factors that are affected by the proposed facility, most notably along the Waxahachie creek. This project is considered an independent utility because the roadway improvements will operate as a single and complete project without phases.

The proposed project is consistent with the 2016 NCTCOG Transportation Improvement Plan (TIP) Plan, with an approximate 2016 construction cost of $19.6 Million (**Appendix E – Plan and Program Excerpts**). Anticipated Federal funding is 80 percent and State funding is 20 percent.

3 Purpose and Need

3.1 Need

The proposed project is needed because the existing viaduct is over 80 years old, has many structural deficiencies and poses a safety hazard. Additionally, US 77 through Waxahachie is inadequate to meet current and future traffic volumes, resulting in congestion, reduced mobility, and a level of service (LOS) 'F' on this stretch of highway (**Appendix F – Exhibit 1**).

3.2 Supporting Facts and/or Data

Viaduct surveys of the US 77 viaduct were conducted in January of 1998, January and July of 2002, July of 2004 and in May of 2012. These surveys identified that chloride contamination from de-icing salts has led to corrosion within the superstructure. Each survey determined that it would be feasible to widen or reconstruct the superstructure of the viaduct; however the substructure was considered at that time to be in good condition and could be rehabilitated for use with a new superstructure that would meet new design standards.

The May 2012 viaduct condition survey showed significant deficiencies in the superstructure and substructure and concluded that the entire viaduct posed a safety hazard and should be replaced. Traffic volumes for existing US 77 (Elm Street) are 10,300 average daily traffic (ADT) for the year 2015 and 14,000 ADT for year 2035. Traffic volumes for Monroe Street are 10,300 ADT in 2015 and 14,200 ADT in 2035.

A Level of Service (LOS) analysis was conducted in September 2015 by TxDOT consultants. Each analysis measured year 2015 and 2035 traffic volumes for US 77 between FM 66 and Monroe Street. The analysis concluded that the existing facility operated at LOS F in both the current year (2015) and design year (2035). However, the proposed couplet facility produced an acceptable LOS C in the current year (2015) and LOS D in the design year (2035).

3.3 Purpose

The purpose of the proposed project is to improve the safety of the US 77 viaduct and to reduce congestion and improve mobility of US 77 through downtown Waxahachie.

4 Alternatives

4.1 Build Alternative

The Build Alternative would include the addition of a new two-lane bridge on new alignment west of the existing viaduct, a new (replacement) two-lane bridge on the existing alignment, and the conversion of Elm Street and Monroe Street to a one-way couplet system.

The Build Alternative would add a new two-lane structure west of the existing viaduct for southbound traffic only. The existing viaduct would be rehabilitated and utilized as a two-lane structure for northbound traffic only. Additionally, Elm Street and Monroe Street would be converted into a one-way couplet system. Each street would carry two lanes of traffic. Northbound traffic in downtown Waxahachie would use the existing Elm Street roadway, while southbound traffic would be diverted onto Monroe Street. Elm Street and Monroe Street would consist of two travel lanes, parking lanes on one side, and adjacent sidewalks.

This alternative is financially viable, is consistent with planned development, has support from residents, historical societies and the City of Waxahachie, and would enhance mobility. The preferred build alternative is expected to meet the purpose and need of the project because the bridge replacement and addition of two additional travel lanes on an additional bridge will increase the current capacity of the main arterial streets in downtown Waxahachie, which will alleviate congestion, improve the LOS inadequacies, and create a safer roadway for the traveling public.

4.2 No-Build Alternative

Under the No-Build Alternative, US 77 and the viaduct would remain as it is with no improvements, the viaduct would continue to deteriorate, which is a safety hazard for motorists. The traffic on the two-lane roadway would continue to increase, leading to long queues and increased congestion within downtown Waxahachie. The No-Build alternative does not meet the purpose and need as it would not address the identified safety and mobility issues. The No-Build Alternative is carried forward as a baseline for comparison throughout the document.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

The preliminary alternatives that were considered during the project planning stage are discussed in additional detail below. The bridge alternatives are identified as Alternative 1, 2, 3, and 4 and Mobility Enhancement Alternatives (Elm Street and Monroe Street improvements) are identified as Alternatives A, B, and C. Alternative 4 and B are discussed previously under the Build Alternative Section 4.1.

Alternative 1: Rehabilitation of Existing Viaduct

Alternative 1 would involve repairing and rehabilitating the existing US 77 viaduct. This could entail as little as repairing the deck and railing to replacement of the entire superstructure. However, it would not improve traffic mobility in downtown Waxahachie. The construction cost ($3.1 million) would be minimal in comparison to the other alternatives, but a two-lane viaduct structure is not consistent with planned development, does not address future traffic, safety and mobility needs, and was therefore eliminated from further consideration.

Alternative 2: Replacement with New Four-Lane Viaduct on Same Alignment

Alternative 2 would remove the existing viaduct and replace it with a new four-lane structure on the same alignment. This alternative would address the condition of the existing viaduct and would improve traffic mobility; however, it would require Elm Street to be widened to four lanes requiring numerous displacements within the historic district of the town and would cause negative traffic control issues. The construction cost of this alternative would be approximately $13.0 million, and would require up to two commercial displacements. This alternative received some opposition by the local Heritage Preservation Committee because of the substantial property impacts, high financial costs, and traffic control issues; therefore, this alternative was eliminated from further consideration.

Alternative 3: Replacement with New Four-Lane Structure on New Alignment

Alternative 3 would consist of constructing a new four-lane structure west of the existing viaduct, extending southward from Monroe Street to the intersection of US 77 and FM 66. After completion of the proposed structure, the historic viaduct would be given to the City of Waxahachie for rehabilitation and use as a pedestrian bridge. This alternative would not adversely affect the historic viaduct and would avoid the need for a Programmatic Section 4(f) Evaluation. However, because the new structure would require land from the historic

Paymaster Oil Mill (now Cabinet Specialists) at 504 Cantrell, a Section 4(f) Evaluation would be required. Additionally, Monroe Street would have to be widened to four lanes. This alternative would address the condition of the existing viaduct and would improve traffic mobility. This alternative would be the most expensive at approximately $15.4 million, would require commercial displacements (Los Tapatios, Mike Moya Tire Shop, Cabinet Specialists, and 2 structures at 2 industrial parcels), and is also opposed by local historic groups. Because of the substantial property impacts, high financial costs, and local opposition, this alternative was eliminated from further consideration.

Alternative A: Widen Elm Street to Four Lanes

Under this alternative, Elm Street would be widened to an 80-foot wide ROW and reconfigured to provide four 12-foot wide travel lanes (two in each direction), 10-foot wide parking lanes, and six-foot wide sidewalks. Depending on whether ROW would be acquired to the east, the west, or on both sides, between nine and 19 commercial properties in downtown Waxahachie could be displaced. Also, Elm Street is the western border of the Ellis County Courthouse Historic District and any widening to the east would displace contributing historic properties at 212 W. Jefferson and 209-215 W. Franklin. The construction cost for this alternative is approximately $5.7 million, and would be the most expensive of the Mobility Enhancement Alternatives. Alternative A would be contingent on the construction of Alternative 2 and was eliminated from further consideration.

Alternative C: Widen Monroe Street to Four Lanes

Under this alternative, Monroe Street would be widened to a four-lane facility within an 80-foot wide ROW and all US 77 traffic would be routed onto this new roadway. Monroe Street would consist of four 12-foot wide travel lanes (two in each direction) and 10-foot wide parking lanes on each side. The roadway would connect with Alternative 3. Depending on whether ROW would be acquired to the east, the west, or on both sides, between 6 and 16 businesses would be displaced, including historic properties at 208-210 N. Monroe and 315-319 W. Main. The construction cost for this alterative would be $4.6 million. Because this alternative would not be consistent with existing and planned development, and it is not supported by the community, it was eliminated from further consideration. Additional details on the Alternatives Analysis are summarized in Table 4-1.

Table 4-1: Alternatives Analysis Matrix

Alternative Alignment	Summary	Lanes	Pros	Cons
1	Rehabilitate existing viaduct	2	Low Impacts	Safety not met, No capacity added
2	Replace viaduct with 4 lane, widen Elm to 4 lanes	4	Retains traffic pattern, Capacity added	High Displacements, Local opposition, Historic property impacts
3	Construct new viaduct and use existing viaduct for pedestrians, widen Monroe	4	Local Support, Capacity added	Safety not met, High Displacements, Historic property impacts
4 (Build)	Construct new bridge for southbound (2 lane), reconstruct existing viaduct for northbound (2 lane)	4	Local Support, Capacity added	Some Displacements, Historic Viaduct removed
Mobility Enhancement Alternatives (Elm Street and Monroe Street improvements)				
A	Widen Elm to 4 lanes	4	Retains traffic pattern, Capacity added	High Displacements, Local opposition, Historic property impacts
B (Build)	Convert Elm and Monroe to one-way couplets	4	No historic property impacts, Capacity added	Some Displacements
C	Widen Monroe to 4 lanes	4	No viaduct impact, Capacity added	High Displacements, Local opposition, Historic property impacts

Source: Jacobs Project Team (August 2015); The City of Waxahachie (2015)

5 Affected Environment and Environmental Consequences

In support of this EA, the following technical reports have been prepared and are available for inspection and to be copied upon request at the TxDOT-Dallas District office and the TxDOT-Environmental Affairs offices:

- Community Impacts Assessment Technical Report Form
- Project Coordination Request for Archaeological Studies and Background Study
- Water Resources Technical Report
- Biological Survey Technical Report and Biological Evaluation Form
- Wetland Delineation Technical Report
- Air Quality Technical Report
- Traffic Noise Analysis Technical Report
- Hazardous Materials Technical Report and Initial Site Assessment
- Cumulative Impacts Technical Report
- Public Meeting Summary Report

5.1 Right-of-Way/Displacements

Build Alternative

The Build Alternative would require the acquisition of approximately 3.8 acres of new ROW and the acquisition of 0.14 acre in driveway easements (**Appendix C – Schematics**).

The ROW acquisition would result in the displacement of 5 businesses (**Appendix F – Exhibit 2**). These potential displacements would affect only commercial properties (Los Tapatios, Mike Moya Tire Shop – two buildings, Cabinet Specialist – two buildings, and two industrial structures). For more detailed information, please see the *Community Impacts Assessment Technical Report Form.* The ROW acquisition and relocation will be conducted in accordance with the Federal Uniform Relocation and Real Property Acquisition Policies Act of 1970 (Uniform Act).

No-Build Alternative

The No-Build Alternative would not require the acquisition of ROW and, therefore, would not result in any displacements or relocations.

5.2 Land Use

Build Alternative

The Build Alternative would impact the land use in the area according to the acreages in Table 5-1.

Table 5-1: Build Alternative Land Use Impacts

Land Use	Acres	Share
Transportation	5.87	43.0%
Commercial	4.10	30.0%
Industrial	1.95	15.0%
Undeveloped	0.77	6.0%
Parkland	0.42	3.0%
Rail	0.21	2.0%
Single-Family Residential	0.13	1.0%
TOTAL	**13.68**	**100%**

Source: Jacobs Project Team (August 2016); The City of Waxahachie (2015)

Approximately 0.42 acres of parkland from the Waxahachie Hike and Bike Trail will be permanently impacted by the proposed new ROW crossing over Waxahachie Creek. This park is located under the current viaduct. Park access would be temporarily interrupted during construction, but continued access under the proposed bridges would be provided after construction interruptions are complete. During construction, the trail path will be re-routed. The 0.42 acres of land would be acquired as ROW because of the bridge overhead; however, the park below would continue to function as a trail once construction is complete. A Section 4(f) *de minimus* is currently being pursued for the park. The coordination package is located in Appendix H – Section 4(f) Documentation.

Indirect effects to land use are not anticipated because of the small project size and built-out nature of the downtown Waxahachie area.

No-Build Alternative

The No-Build Alternative would not require the acquisition of ROW; therefore, no impacts or indirect effects to land use would occur.

5.3 Farmlands

Based on a project scoping analysis, it was determined that neither the build nor the no-Build alternative would have an impact or indirect effect on this resource category or subject matter.

Prime or Unique farmland soils are located within the proposed project area; however, the U.S. Census Bureau shows that the areas within and surrounding the project area are urbanized and therefore coordination with NRCS is not required.

5.4 Utilities/Emergency Services

Build Alternative

The Build Alternative may require relocating and adjusting utilities, such as water lines, sewer lines, gas lines, telephone cables, electrical lines, and other below ground and overhead utilities. All utility relocations and adjustments would be coordinated with the affected utility provider to ensure that no substantial interruptions of service would occur. The location of utilities would be determined during the detailed design phase and coordination with utility owners would take place at that time.

The City of Waxahachie Fire Station is located within the vicinity of the project area; however, it would not be impacted by the proposed project. Access to all of the properties would be maintained and TxDOT will coordinate construction activities with the Waxahachie Fire Department to avoid delays in service and response times.

No-Build Alternative

The No-Build Alternative could negatively affect emergency service as congestion increases over time. Increased congestion and reduced mobility could result in increased response times of emergency responders and delayed evacuation during emergencies.

5.5 Bicycle and Pedestrian Facilities

Build Alternative

The existing US 77 facilities do not currently include sidewalks or bicycle lanes within the proposed project limits, and while sections of Elm and Monroe Street do include sidewalks,

they are not contiguous. Adjacent parcels are accessed predominantly by vehicles, and limited mass transit routes. There is an existing Waxahachie Hike and Bike Trail that bisects the project area. The sidewalk alignment for this trail will be modified slightly. The trail will be detoured during construction. The proposed project includes the construction of sidewalks throughout the project length of existing Monroe Street and US 77, increasing pedestrian mobility within the project area.

No-Build Alternative

The No-Build Alternative would not alter access in and around the study area, none of the proposed at-grade pedestrian and bicycle crossing improvements would be implemented under the No-Build Alternative.

5.6 Community Impacts

Build Alternative

While impacts to project area communities would occur (primarily in the form of business displacements and changes in access and travel patterns), these impacts would not be expected to be substantial. Direct adverse impacts to the character or cohesion of project area communities would not be expected. The proposed project would not result in division or isolation of any businesses, distinct neighborhoods, ethnic groups, nor would access be denied to existing facilities. Direct adverse impacts to the character or cohesion of communities in the project vicinity are not expected. Additionally, the proposed project is intended to improve US 77, by reducing congestion, and improving access to employment centers, shopping, and recreational areas throughout the surrounding area.

The seven building displacements (five businesses) outlined above are not expected to result in major changes to land use patterns, economic conditions, social interaction, or access to public facilities within the communities adjacent to US 77. Based on a search of several real estate websites it was determined that the displaced businesses would be able to find appropriate sites to relocate nearby due to the amount of commercial property available in the project vicinity. It is anticipated that employees of businesses displaced by the proposed project would be able to find alternative employment, if necessary, and that effects to displaced employees would be temporary.

As a result of the couplet configuration, it is expected that traffic would increase on the existing Monroe Street and would potentially change the traffic volume and composition, which may affect adjacent businesses. The couplet configuration would also alter access for businesses adjacent to the project area. However, current access from side-streets would remain, and the project would not isolate any businesses or distinct neighborhoods. Access would be maintained to all of the adjacent properties through the use of side streets that would connect US 77 and Monroe Street. The proposed project includes the construction of sidewalks throughout the project length of existing Monroe Street and US 77, increasing pedestrian mobility within the project area. There is one property between Railroad Street and Monroe Street that could potentially lose access through the construction of the second bridge. It is anticipated that this property would be able to construct a new access point to their property off of the adjacent dirt road. Refer to the *Community Impacts Assessment Technical Report Form* for more details.

No-Build Alternative

The No-Build Alternative would not alleviate the anticipated future congestion, decreasing access throughout the project area.

5.6.1 Environmental Justice

Build Alternative

Impacts related to environmental justice (EJ) consider a proposed project's impact on minority and low-income populations. It is estimated that the project would result in the displacement of five commercial properties, but no residential properties. These displacements would not occur in predominantly EJ neighborhoods, nor are these businesses intended to serve specific populations. Although EJ populations are present in the project area, the proposed improvements to US 77 would not result in disproportionately high or adverse impacts to these populations and are not anticipated to substantially alter the overall character or cohesion of the adjacent communities. Refer to the *Community Impacts Assessment Technical Report Form* for more details.

No-Build Alternative

The No-Build Alternative would not result in disproportionately high and adverse impacts or indirect effects to environmental justice populations.

5.6.2 Limited English Proficiency

Build Alternative

The majority of the people in the proposed project census block groups speak English (96.9 percent) with an average of 3.1 percent being Spanish-speaking with LEP (2010-2014 US Census ACS). In order to comply with Executive Order (EO) 13166, public involvement in both English and Spanish would provide opportunities for citizens to request language interpreters. TxDOT would continue to comply with EO 13166 by offering to meet the needs of persons requiring special communication or accommodations in all public involvement activities and notices. Therefore, the requirements of EO 13166 would be met. Refer to the *Community Impacts Assessment Technical Report Form* for more details.

No-Build Alternative

The No-Build alternative would not result in disproportionately high and adverse impacts or indirect effects to environmental justice populations.

5.7 Visual/Aesthetics Impacts

Build Alternative

Direct impacts to visual/aesthetics are related to the proposed viaduct construction from Monroe Street, west of the existing viaduct. This area is currently undeveloped and contains some trees and vegetation. The view of this open area will now be impacted with a raised viaduct structure, with trees and vegetation remaining in the adjacent areas. To mitigate some of the visual impacts from the new viaduct, TxDOT will construct a bridge that is complementary to the historic architecture of downtown Waxahachie. The new construction will be similar to the historic viaduct and will match the construction of the replacement viaduct. TxDOT will also install lighting on the new viaducts that is complementary to the surrounding architecture, and which minimizes excessive light pollution for the residents.

No-Build Alternative

The No-Build alternative would not result in impacts or indirect effects to visual/aesthetic resources.

5.8 Cultural Resources

5.8.1 Archeology

Section 106 review and consultation should proceed in accordance with the First Amended Programmatic Agreement (PA) among TxDOT, the Texas Historical Commission (THC), the Federal Highway Administration, and the Advisory Council on Historic Preservation, as well as the Memorandum of Understanding between the THC and TxDOT.

Build Alternative

The majority of the proposed Area of Potential Effect (APE) was previously surveyed under Texas Antiquities Permit Nos. 4392 and 4690. Investigators determined that no archeological work was necessary for the portions of the proposed APE located outside of the Waxahachie Creek floodplain (Pemberton and Cliff 2007). In 2008, additional surveys were done within the proposed APE; these surveys included the excavation of five backhoe trenches along the southern banks of Waxahachie Creek. As a result, investigators documented one newly recorded archeological site, 41EL246, within the direct path of the viaduct's proposed new ROW (Pemberton and Cliff 2008) (**Appendix F – Exhibit 3**). A *Project Coordination Request for the Archaeological Studies (PCR) and Archaeological Background Study* were completed in November 2015.

A letter was sent from TxDOT to the Texas Historical Commission (THC), Division of Archeology, and concurrence by signature was received on August 31, 2016. The purpose of the letter was to obtain concurrence on Site 41EL246 for eligibility for listing in the National Register of Historic Places, acknowledgement of adverse effects on the site by the proposed project, acceptance of the proposed mitigation of data recovery excavations by TxDOT, and a request for comments from the SHPO of an exception under Section 4(f) regulations (**Appendix H – Section 4(f) Documentation**). The mitigation for this site would be data recovery excavations at the site as defined within the proposed Area of Potential Effects.

No-Build Alternative

The No-Build alternative would not affect or result in indirect effects of any archeological resources.

5.8.2 Historic Properties

Build Alternative

The proposed project will directly impact eight historic-age resources within the 150-foot APE where new ROW is proposed – Resource ID Nos. 4, 22, 25, 26b, 27, 28b, 30, and 38 will be removed by the proposed project. None of these resources are recommended eligible for or are listed in the National Register of Historic Places (NRHP), except for Resource ID No. 22, the US 77 viaduct, a contributing resource to the Ellis County Courthouse Historic District. A programmatic 4(f) is being prepared by the TxDOT ENV Historian for the viaduct. Consulting parties identified through the Section 106 process state that Resource ID No. 4, a ca. 1955 International Style commercial building, potentially possesses significance at the local level because it was designed by the prominent local architect Forrest Upshaw. A survey of this property concluded that this resource was recommended not eligible for inclusion in the NRHP (**Appendix F – Exhibit 4**).

Proposed new ROW, ADA-compliant sidewalks, and curb ramps are located within the boundaries of the NRHP-listed Ellis County Courthouse Historic District. The NRHP listed West End Historic District has proposed ADA-sidewalks and curb ramps, but no proposed new ROW. These proposed improvements abut five contributing resources in the Ellis County Courthouse District (Resource ID Nos. 11, 13, 22, 23, and 24) and only one contributing resource in the West End Historic District (Resource ID No. 14). Proposed ADA curb ramps and sidewalks abut one individual NRHP-listed resource – Resource ID No. 10. The only other individual NRHP-listed resource documented in the survey, Resource ID No. 37, lies within the 150-foot APE for proposed new ROW, but will not be directly affected by this project. The historic resources survey identified three historic-age properties eligible for listing in the NRHP that abut proposed ADA ramps and sidewalks: Resource ID Nos. 8a, 9, and 15. Resource ID No. 9 also lies within the 150-foot APE for proposed new ROW. The two contributing resources to the NRHP-listed historic districts directly abutting proposed ADA improvements (Resource ID Nos. 11 and 13) will require protection notes and/or additional coordination with SHPO. Refer to the *Report for Historical Studies Survey* by HHM for ENV for additional historic resource details.

The Vacuum Shop located at 400 Jefferson Street will require 0.012-acre of new ROW for driveway reconstruction following the installation of new ADA sidewalks along the east side

of the property parcel. In addition, these activities will require a temporary construction easement. The temporary construction easement activity triggers FHWA's Section 4(f) 'use' because the property is located in the West End Historic District; however, the temporary and minor nature of the project work establish this use eligible as a Section 4(f) Exception and requires concurrence from the THC.

The mitigation plan, based on the public meeting outcome, is that TxDOT committed to designing an Interpretive Plaza south of and across the street (South College Street) from the old Missouri-Kansas-Texas railroad depot to serve as an exhibit area with interpretive materials that present the history of the original US 77 viaduct. TxDOT will disassemble, salvage, and integrate 3 to 5 historic viaduct elements, including railing, into the plaza site as exhibit objects. TxDOT will produce interpretive panels detailing the history of the US 77 viaduct which will line the western edge of the plaza and face west, so that visitors to the site can simultaneously view the panels and the original bridge location. TxDOT will collaborate with the project consulting parties to develop the content for the interpretive panels, including maps, photographs, and drawings, along with the material and color selection of plaza components during the design phase. The design will feature a paved area with benches, shaded by a large central tree. Accent elements to the interpretive plaza will include four lights and brick pavers incorporated into concrete sidewalks. These brick pavers will tie into existing historic brick pavers within the NRHP-listed district. The consulting parties will be included in future design input for the new bridges.

The TxDOT findings of the historic properties associated with the US 77 APE were reviewed by the THC and concurrence was provided in writing on December 19, 2016. The concurrence letter is provided in **Appendix G – Resource Agency Coordination**.

Indirect Effects to Non-Archeological Historic Resources

Potential encroachment alteration effects (indirect) could include visual and audible impacts to the West End, Ellis County Courthouse, and Main Street historic districts. Although the new bridges will affect the viewshed of these areas, this will not adversely affect the character-defining features that make the downtown historic district significant as the traditional center of local government and commerce. The noise models concluded that the project does not generate additional noise levels, which will continue to be below the

FHWA's Noise Abatement Criterion for the area. Additional analysis of the individual historic properties found no indirect effects (**Appendix G – Resource Agency Coordination**).

No-Build Alternative

The No-Build alternative would not affect or cause indirect effects to any historical resources.

5.9 DOT Act Section 4(f) and Parks and Wildlife Code (PWC) Chapter 26

Build Alternative

Direct effects of non-archeological historic resources include the displacement of three buildings (Los Tapatios and two Cabinet Specialist buildings) and two industrial gas station structures, which are contributing features to the West End Historic District and the replacement of the US 77 viaduct which is listed on the NRHP.

Mitigation of effects and/or minimization of harm to historic resources are ongoing and Section 4(f) documentation has been produced by TxDOT ENV. A Section 4(f) *de minimis* is being pursued for the Waxahachie Hike and Bike Trail area that will be modified slightly with a new trail alignment.

Compliance with Chapter 26 of the Texas Parks and Wildlife Code is required because the Waxahachie Hike and Bike Trail is land designated and used as a public recreation area. Approximately 0.42 acres of the park will be taken as US 77 ROW. The project is not expected to induce growth, and therefore would have no indirect effects on parkland.

TXDOT determined that there is no feasible and prudent alternative to the use or taking of Chapter 26 protected land, and the US 77 project includes all reasonable planning to minimize harm to the land as a park, resulting from the use or taking.

The take from the park is the result of the parallel bridge being constructed overhead, which will contain one-way traffic across the Waxahachie Creek. The Waxahachie Hike and Bike Trail will be re-routed during construction and some mature trees will be removed for the bridge construction. After construction, the park will be restored to equal or better condition and will still be available for use as a park by the residents, even though the land will be acquired by TXDOT for ROW for the US77 bridge overhead (**Appendix H – Section 4(f) Documentation**).

No-Build Alternative

The No-Build alternative would not affect or cause indirect effects to any non-archeological historical resources.

5.10 Water Resources

There is one jurisdictional water of the U.S. present within the existing and proposed ROW, the Waxahachie Creek perennial stream (**Appendix F – Exhibit 5**).

5.10.1 Clean Water Act Section 404

Build Alternative

Pursuant to Executive Order 11990 (Protection of Wetlands) and Section 404 of the CWA, a field investigation was performed on August 31, 2015 to identify potential waters of the U.S. (including wetlands) within the proposed project area. There is one jurisdictional water of the U.S. present within the existing and proposed ROW, the Waxahachie Creek perennial stream. The analysis indicated that the stream is subject to USACE jurisdiction under Section 404 of the CWA. In addition, representative photographs of the project area, including the potential jurisdictional feature, are also attached to this document in **Appendix B – Project Photos**. At this time, no permanent impacts to Waters of the U.S. or indirect effects as a result of the proposed project activities are anticipated, as shown in **Table 5-2**.

Table 5-2: Summary of Potential Jurisdictional Water Features and Impacts

Name of Waterbody	Approximate OHWM (ft)	Flow Regime	Flow Direction	Area in Existing & Proposed ROW (lf/acre)	Area of Impact (lf/acre)	Section 404 Permitting
Waxahachie Creek *Natural (west ROW)*	16	Perennial	Southeast	Natural-43/0.016	0	NWP 14 without PCN and/or NWP 25
Waxahachie Creek *Under viaduct (east ROW)*	24	Perennial	Southeast	Under viaduct-35/0.019	0	NWP 14 without PCN and/or NWP 25

Source: Jacobs Project Team (August 2016)

Activities within the Waxahachie Creek from the proposed project would be authorized under Nationwide Permit (NWP) 14, with no Preconstruction Notification (PCN) and/or NWP 25. NWP 14 authorizes the construction, expansion, modification or improvements of linear transportation projects. NWP 25 authorizes structural discharges into Waters of the U.S. such as sand, rock, etc. into tightly sealed forms or cells where the material will be used as a structural member for standard pile supported structures, such as viaducts, transmission line footings, and walkways. Refer to the *Wetlands Technical Report* for additional details.

No-Build Alternative

The No-Build Alternative would not affect or cause indirect effects to any waters of the U.S.

5.10.2 Clean Water Act Section 401

The proposed project must comply with the TCEQ Water Quality Certification Program, established under Section 401 of the federal Clean Water Act (CWA). The project and associated activities would be implemented, operated, and maintained using the Best Management Practices (BMPs) described below. These BMPs would address each of the following categories: 1) erosion control, 2) post construction total suspended solids (TSS)

control, and 3) sedimentation control. Water quality BMPs that would be implemented include but are not limited to the following:

- Approved temporary vegetation
- Blankets/matting or mulch filter berms
- Vegetated filter strips
- Silt fence, sand bag and/or compost filter berms

No-Build Alternative

The No-Build Alternative would not affect or cause indirect effects any waters of the U.S.

5.10.3 Executive Order 11990 Wetlands

There are no wetlands within the project area; therefore, it was determined that neither the build nor the no-build alternative would have an impact or cause indirect effects on this resource category or subject matter.

5.10.4 Rivers and Harbors Act

There are no navigable waters within or adjacent to the project area; therefore, it was determined that neither the build nor the no-build alternative would have an impact or cause indirect effects on this resource category or subject matter.

5.10.5 Clean Water Act Section 303(d)

Build Alternative

Pursuant to Section 303(d) of the CWA, the *2014 Texas Integrated Report Index of Water Quality Impairments* does not contain an impaired water body within 5 stream miles or within the watershed of any impaired assessment unit near the proposed project. The Build Alternative would not impact or cause indirect effects to any impaired Section 303(d) water bodies.

No-Build Alternative

The No-Build Alternative would not affect impaired Section 303(d) waters.

5.10.6 Clean Water Act Section 402

Build Alternative

As the Build Alternative would disturb more than 5 acres and is considered a "large construction activity" under the TPDES Construction General Permits, a Stormwater Pollution Prevention Plan (SW3P) will be prepared and implemented, a construction site notice will be posted, a Notice of Intent (NOI) will be submitted with the associated fee to TCEQ, and notification will be provided to Ellis County due to discharge to the Ellis County Municipal Separate Storm Sewer System (MS4). The SW3P will utilize the temporary control measures as outlined in TxDOT's manual "Standard Specifications for the Construction of Highways, Streets, and Viaducts." Additionally, a copy of the NOI (where applicable) would be sent to the appropriate cities, including the city of Waxahachie, Texas. TPDES requirements will be met by implementing approved erosion controls, sediment controls, and post-construction total suspended solids controls. All temporary erosion controls, such as silt fences and rock berms, will comply with TxDOT standard specifications and will be in place, according to the construction plans, prior to commencement of construction activities and will be inspected on a regular basis.

No-Build Alternative

The No-Build Alternative would not require the TPDES Construction General Permit.

5.10.7 Floodplains

The protection of floodplains and floodways is required by Executive Order 11988 *Floodplain Management* and is implemented by FHWA through 23 CFR 650 Subpart A, "Location and Hydraulic Design of Encroachments on Floodplains."

Build Alternative

The proposed project will be constructed in approximately 3.5 acres of 100-year floodplains associated with the Waxahachie Creek in the southern portion of the project, which would not result in significant encroachment because this area includes raised viaducts and existing roadway ROW. The proposed project would permit the conveyance of the 100-year flood, inundation of the roadway being acceptable, without causing significant damage to the highway, stream, or other property. The Build Alternative would not increase the base flood elevation to a level that would violate applicable floodplain regulations/ordinances, nor

pose a substantial risk to, or adversely impact, natural and beneficial floodplain values. Floodplain impacts resulting from the Build Alternative would be considered minimal. Refer to the *Water Resources Technical Report* for additional details. The hydraulic design of the Build Alternative would be prepared in accordance with current TxDOT and FHWA design policies and procedures. In cooperation with FEMA, TxDOT would conform to the standard for temporary and permanent fill set by the applicable Flood Insurance Rate Map. The Build Alternative would provide, at a minimum, the same flow capacity as existing conditions and would likely not adversely increase surface water elevations above allowable limits (**Appendix F – Exhibit 5 – Water Resources Map**). The proposed project could result in minimal indirect effects to floodplain drainage patterns during constructions, which would be restored to previous flow patterns following construction and removal of equipment and water protection measures.

No-Build Alternative

The No-Build Alternative would have no impacts or indirect effects to floodplains.

5.10.8 Wild and Scenic Rivers

Based on a project scoping analysis, it was determined that neither the build nor the no-Build alternative would have an impact on this resource category or subject matter.

5.10.9 Trinity River Corridor Development Certification

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact on this resource category or subject matter.

5.10.10 Coastal Barrier Resources

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact or cause an indirect effect on this resource category or subject matter.

5.10.11 Coastal Zone Management

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact or cause indirect effects on this resource category or subject matter.

5.10.12 Edwards Aquifer

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact or cause indirect effects on this resource category or subject matter.

5.10.13 International Boundary and Water Commission

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact or cause indirect effects on this resource category or subject matter.

5.11 Biological Resources

5.11.1 Vegetation

Build Alternative

The Build Alternative would impact 1.15 acres of floodplain vegetation and 0.251 acre of riparian vegetation. Refer to Table 5-3 and the *Biological Survey Report* and Appendix F – Exhibits 6 and 7 for additional details.

Table 5-3: EMST Vegetation Impacts

EMST Vegetation Type (Common)	TPWD Ecological System Type	MOU Habitat Type	Permanent Impact Acreage
Urban Low Intensity	Urban	Urban	5.879
Urban High Intensity	Urban	Urban	6.401
		Total Impacts to Urban MOU Type	**12.280**
Central Texas: Floodplain Hardwood Forest	Southeastern Great Plains Floodplain Forest	Floodplain	1.151
		Total Impacts to Floodplain MOU Type	**1.151**
Central Texas: Riparian Hardwood Forest	Southeastern Great Plains Riparian Forest	Riparian	0.174
Open Water	Open Water	Riparian	0.077
		Total Impacts to Riparian MOU Type	**0.251**

Source: Jacobs Project Team (August 2016); TPWD EMST (2016); TXDOT Dallas District Version of EMST (2016).

The proposed project would exceed MOU threshold impacts for Floodplain and Riparian habitat types and coordination between TxDOT and TPWD would be required per Section 2.206 (6 and 7) of the September 2013 MOU. The TPWD MOU and the written coordination exchange is included in **Appendix G – Resource Agency Coordination**. The TPWD Representative concluded that based on a review of the project description and the avoidance and minimization efforts described, and provided that the project plans do not change, TPWD considers coordination to be complete, effective August 26, 2016.

In accordance with Executive Order 13112 on Invasive Species, seeding and replanting with TxDOT approved seeding specifications that is in compliance with Executive Order 13112 would be done where possible. Soil disturbance would be minimized in the ROW in order to minimize invasive species establishment.

The project does not include landscaping beyond the application of seeding/sodding as appropriate for erosion control purposes where needed. Seeding and replanting with TxDOT-approved seeding specifications that are in compliance with the Executive Memorandum on Beneficial Landscaping would be done where possible.

No-Build Alternative

The No-Build Alternative would not impact vegetation or cause indirect effects on this resource category.

5.11.2 Wildlife

The proposed project area and adjacent areas are located in a commercial, industrial, and transportation setting with a small floodplain / riparian area in the southern portion along Waxahachie Creek. The predominant wildlife species in the area include, but are not limited to the field mouse (*Mus musculus*) roof rat (*Rattus rattus*), wood rat (*Neotoma floridana*), eastern cottontail (*Sylvilagus floridanus*), eastern fox squirrel (*Sciurus niger*), eastern gray squirrel (*Sciurus carolinensis*), red-eared slider (*Trachemys scripta elegans*), common snapping turtle (*Chelydra serpentina*), western box turtle (*Terrapene oranata*), Asian clam (*Corbicula fluminea*), southern maple leaf (*Quadrula apiculata),* giant floater (*Pyganodon grandis*)), fragile papershell (*Leptodea fragilis*), Woodhouse's toad (*Anaxyrus woodhousii*), spotted chorus frog (*Pseudacris clarkia streckeri*), bullfrog (*Lithobates catesbeianus)*, leopard frog (*Lithobates sphenocephalus*), cricket frog (*Acris crepitans)*, copperhead (*Agkistrodon contortrix*), Texas rat snake (*Elaphe obsoleta lindheimeri*), diamond-backed water snake (*Nerodia rhombifer*), yellow-bellied water snake (*Nerodia erythrogaster flavigaster*), common garter snake (*Thamnophis sirtalis*), eastern yellow-bellied racer (*Coluber constrictor flaviventris*) bull snake (*Pituophis catenifer sayi*),), earth snake (*Virginia striatula*), channel catfish (*Ictalurus punctatus*), largemouth bass (*Micropterus salmoides*), bluegill (*Lepomis macrochirus*), fathead minnow (*Pimephales promelas*), common carp (*Cyprinus carpio*), spotted gar (*Lepisosteus oculatus*), crayfish *(Superfamily Astacoidea*), wild turkey (*Meleagris gallopavo*), mourning dove (*Zenaida macroura*), mockingbird (*Mimus polyglottos*), blue jay (*Cyanocitta cristata*), house sparrow (*Passer domesticus*), common grackle (*Quiscalus quiscula*), European starling (*Sturnus vulgaris*), cardinal (*Cardinalis cardinalis*), house finch (*Haemorhous mexicanus*), tufted titmouse (*Baeolophus bicolor*), Carolina chickadee (*Poecile carolinensis*) eastern phoebe (*Sayornis phoebe*), red-headed downy woodpecker (*Dryobates pubescens*), barred owl (*Dryobates pubescens*), barn owl (*Tyto alba*), red-tailed hawk (*Buteo jamaicensis*), cooper's hawk (*Accipiter cooperii*), American kestrel (*Falco sparverius*), great blue heron (*Ardea*

herodias), green heron (*Butorides virescens*), and the belted kingfisher (*Megaceryle alcyon*). The majority of the wildlife habitat within the proposed project area is concentrated in the riparian areas associated with Waxahachie Creek. However, several species (rabbits, mice, snakes, etc.) utilize the maintained roadside vegetation as a food source or as habitat/cover, while other species (raptors, snakes, etc.) prey upon those species.

During the site visits on August 31, 2015 and May 5, 2016, the species that were observed included eastern fox squirrels, bluejays, cardinals, sparrows, mourning dove, barred owl, yellow-bellied water snakes, red-eared sliders, crawfish, and common carp. For detailed information on wildlife resource impacts, please see the *Biological Evaluation Form* and the *Biological Survey Technical Report* located at the TxDOT-Dallas District office and the TxDOT-Environmental Affairs offices.

Migratory Bird Treaty Act

Build Alternative

The Migratory Bird Treaty Act (MBTA) states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole, without a Federal permit issued in accordance with the act's policies and regulations (16 USC 703-704).

There are many migratory bird species that could utilize the proposed project as verified by a qualified biologist. The migration patterns of MBTA listed bird species would not be affected by the proposed project. As listed in the TxDOT/TPWD BMP PA, the following Bird BMPs would be implemented during construction of the proposed project:

- Not disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season (February 15 to October 1);
- Avoiding the removal of unoccupied, inactive nests, as practicable;
- Preventing the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair; and,
- Not collecting, capturing, relocating, or transporting birds, eggs, young, or active nests without a permit.

In the event that migratory birds are encountered on-site during project construction, efforts to avoid adverse impacts to protected birds, active nests, eggs and/or young would be observed.

No-Build Alternative

The No-Build Alternative would not affect birds protected under the Migratory Bird Treaty Act.

The Fish and Wildlife Coordination Act

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact or cause indirect effects on this resource category or subject matter.

Bald and Golden Eagle Protection Act

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact or cause indirect effects on this resource category or subject matter.

The Magnuson-Stevens Fishery Conservation Management Act

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact or cause indirect effects on this resource category or subject matter.

The Marine Mammal Protection Act

Based on a project scoping analysis, it was determined that neither the build nor the no-build alternative would have an impact or cause indirect effects on this resource category or subject matter.

5.11.3 Threatened and Endangered Species

Build Alternative

A review of the US Fish and Wildlife Service (USFWS) threatened and endangered species lists for Ellis County, Texas, and the USFWS Information for Planning and Conservation (IPaC) Official Species List generated by the Environmental Conservation Online System (ECOS) specifically for the proposed project were reviewed.

In addition, the TPWD Annotated County List of Rare Species for Ellis County identified Federal and state-listed threatened, endangered, and candidate species, species of greatest conservation need (SGCN) by the state (USFWS 2016; TPWD 2016), and the Texas Natural Diversity Database (TXNDD). The *Biological Survey Technical Report* includes all of the species identified, descriptions of habitat requirements, a determination of habitat presence, and the potential impacts/effects from the Build Alternative. Refer to the *Biological Survey Technical Report* for additional details on the results of the TXNDD report.

Federally Listed Threatened, Endangered, and Candidate Species

Field investigations performed on August 31, 2015 and May 5, 2016 by qualified biologists indicated no suitable habitat for federally listed threatened, endangered, or candidate species within or adjacent to the proposed project. Further details concerning federally listed species can be found in the *Biological Survey Technical Report*, which is available at the TxDOT Dallas District office and the TxDOT Environmental Affairs offices.

State-listed Threatened, Endangered, Rare, and SGCN Species

Based upon a field investigation performed on August 31, 2015 and May 5, 2016 by qualified biologists, three state-listed threatened species, the Louisiana pigtoe (*Pleurobema riddellii*), Texas heelsplitter (*Potamilus amphichaenus*), and timber rattlesnake (*Crotalus horridus*), were determined to have suitable habitat within the proposed project. BMPs, as outlined in the BMP PA between TPWD and TxDOT, would be in place to minimize the potential impact to the species. According to the BMP PA, surveys for state-listed mussels, including the Texas heelsplitter and Louisiana pigtoe would be conducted in Waxahachie Creek prior to construction. Per the Freshwater Mussel BMPs and with the appropriate TPWD permit, state-listed and SGCN mussels would be relocated to suitable habitat.

In addition, suitable habitat was also discovered within the proposed project for the SGCN southern crawfish frog (*Lithobates areolatus areolatus*), plains spotted skunk (*Spilogale putorius interrupta*), and Texas garter snake (*Thamnophis sirtalis annectens*). No long-term or population-level impacts are expected to occur for these SGCN species in the proposed project. Specifically with regard to the southern crawfish frog, the project is not expected to induce growth, and therefore would have no indirect effects on the southern crawfish frog.

The implementation of BMPs listed in the BMP PA would eliminate the need for coordination between TxDOT and TPWD for the Louisiana pigtoe, Texas heelsplitter, timber rattlesnake, plains spotted skunk, and Texas garter snake per section 2.206(1) of the 2013 TxDOT/TPWD MOU. There BMPs include advising contractors of the potential occurrence of the species in the proposed project, and to avoid harm if encountered. Additionally, for the plains spotted skunk, BMPs include avoiding unnecessary impacts to dens.

Coordination with TPWD would be required per section 2.206(1) of the 2013 TxDOT/TPWD MOU for the southern crawfish frog since no BMPs exist under the current BMP PA between TxDOT and TPWD for this species. A voluntary conservation measure (VCM) will be implemented: Contractors will be advised of the potential occurrence in the project area, and be advised to avoid harming the southern crawfish frog. Contractors will be advised to avoid small burrows that could contain habitat for the southern crawfish frog. Refer to the *Biological Survey Technical Report* for additional details (**Appendix F – Exhibit 8 – Southern Crawfish Frog RSA**).

No-Build Alternative

The No-Build Alternative would not affect any Federal or state-listed threatened, endangered, or candidate species and would not impact or cause indirect effects to any state-listed threatened, endangered or species of greatest conservation need in the proposed project.

5.12 Air Quality

Transportation Conformity

This project is located within Ellis County, an area that has been designated by EPA as a moderate nonattainment area for the 2008 ozone NAAQS; therefore, transportation conformity rules apply.

The proposed action is consistent with NCTCOG's financially constrained Mobility 2040 and the 2017-2020 TIP, as amended, which were initially found to conform to the TCEQ SIP by FHWA on September 7, 2016 and December 19, 2016, respectively. Copies of the MTP and TIP pages for CSJ 0048-03-055 are included in **Appendix E.** All projects in the NCTCOG TIP that are proposed for federal or state funds were initiated in a manner consistent with

federal guidelines in Section 450, of Title 23 CFR and Section 613.200, Subpart B, of Title 49 CFR.

Hot Spot Analysis

This project is not located within a Carbon Monoxide or particulate matter (PM) nonattainment or maintenance area; therefore, a project level hot-spot analysis is not required.

Traffic Air Quality Analysis

Traffic data for the estimated time of completion (ETC) year 2015 and design year 2035 are 10,300 vehicles per day and 14,000 vehicles per day, respectively. The AADT projections for this project do not exceed 140,000 vehicles per day; therefore, a Traffic Air Quality Analysis was not required.

Mobile Source Air Toxics

For each alternative in this document, the amount of MSAT emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for each of the Build Alternatives is slightly higher than that for the No Build Alternative, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the preferred action alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along the parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to EPA's MOVES2010b model, emissions of all of the priority MSAT decrease as speed increases. Because the estimated VMT under each of the alternatives are nearly the same, varying by less than one percent, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The additional travel lanes contemplated as part of the project alternatives will have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, under each alternative there may be localized areas where ambient concentrations of MSAT could be higher under certain Build Alternatives than the No Build Alternative. The localized increases in MSAT concentrations would likely be most pronounced along the expanded roadway sections that would be built throughout the project length. However, the magnitude and the duration of these potential increases compared to the No Build alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project specific MSAT health impacts. In sum, when a highway is widened, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT will be lower in other locations when traffic shifts away from them. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives.

The full qualitative MSAT analysis is included in the *Air Quality Technical Report*.

Congestion Management Process

The congestion management process (CMP) is a systematic process for managing congestion that provides information on transportation system performance and on alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet state and local needs. The project was developed from the NCTCOG's CMP, which meets all requirements of 23 CFR 450.320 and 500.109, as applicable. The CMP was adopted by NCTCOG in July 2013. Committed congestion reduction strategies and operational improvements within the study boundary will consist of the addition of new lanes, bottleneck removal, intersection improvements, and pedestrian facility improvements. These projects are listed in **Table 5-4.**

Table 5-4: Congestion Management Process Strategies

Operational Improvements in the Travel Corridor		
Location	Type	Implementation Date
US 77 from SH 342 to US 287	Addition of Lanes	2004
IH 35E from 0.18 mile South of US 77 to 0.29 mile North of US 77	Addition of Lanes	2004
IH 35E from US 77 South of Waxahachie to US 77 North of Waxahachie	Addition of Lanes	2015
IH 35E from 0.29 mile North of US 77 to Dallas/Ellis County Line	Addition of Lanes	2004
IH 35E from US 77 South to US 77 North	Intersection Improvement	2035

Source: NCTCOG (2013)

In an effort to reduce congestion and the need for SOV lanes in the region, TxDOT and NCTCOG will continue to promote appropriate congestion reduction strategies through the Congestion Mitigation and Air Quality Improvement (CMAQ) program, the CMP, and the MTP. The congestion reduction strategies considered for this project would help alleviate congestion in the SOV study boundary, but would not eliminate it.

Therefore, the proposed project is justified. The CMP analysis for added SOV capacity projects in the TMA is on file and available for review at NCTCOG.

The CMP analysis requires completion of the Project Implementation Form, and, if warranted, the Roadway Corridor Deficiency Form and Corridor Analysis Fact Sheet.

Construction Air Emissions

During the construction phase of this project, temporary increases in PM and MSAT emissions may occur from construction activities. The primary construction-related emissions of PM are fugitive dust from site preparation, and the primary construction-related emissions of MSAT are diesel particulate matter from diesel powered construction equipment and vehicles.

The potential impacts of particulate matter emissions will be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. The Texas Emissions Reduction Plan (TERP) provides financial incentives to reduce emissions from vehicles and equipment. TxDOT encourages construction contractors to use this and other local and federal incentive programs to the fullest extent possible to minimize diesel emissions. Information about the TERP program can be found at: http://www.tceq.state.tx.us/implementation/air/terp/.

However, considering the temporary and transient nature of construction-related emissions, the use of fugitive dust control measures, the encouragement of the use of TERP, and compliance with applicable regulatory requirements; it is not anticipated that emissions from construction of this project will have any significant impact on air quality in the area. The results of this analysis can be found in the *Air Quality Technical Report*.

5.13 Hazardous Materials

Build Alternative

The Build Alternative would pose a risk of hazardous waste impacts to the environment. The proposed project could potentially expose existing hazardous waste during construction (**Appendix F – Exhibit 9 & 10 – Hazmat Database and Field Visited Sites**).

Visual Observations

In August 2015, qualified personnel conducted a visual survey of both the proposed project and properties located immediately outside the proposed project to identify released or threatened release or the presence of petroleum products or hazardous substances. There were no exposed hazardous wastes observed during the site visit.

Ten non-regulatory sites were identified within and immediately adjacent to the existing and proposed ROW for the proposed project. Field observations identified evidence of the presence of petroleum products or hazardous substances, or the potential to have petroleum products or hazardous substances onsite based upon the nature of the observed site conditions (i.e. industrial facility, tanks, etc.). Observed non-regulatory sites included: automotive repair and maintenance facilities; used auto dealership; sign shop; industrial manufacturing facilities; electrical transmission lines; two railroad crossings, and typical roadside litter. No evidence of soil or groundwater contamination, unusual odors, staining, stressed vegetation, or other signs of released hazardous materials contamination were observed at these locations during the August 2015 or May 2016 site visits.

Recognized environmental conditions (RECs) within the proposed ROW were documented at Cabinet Specialists located at 402 Cantrell Street, Waxahachie, TX. Cabinet Specialist is not listed on the regulatory report, and no evidence of contamination, odors, or signs of hazardous materials contamination was observed during the visual inspection in August 2015. However, during geotechnical investigations conducted for the project in September 2015, a hydrocarbon odor was detected in a core sample north of the facility. This sample was taken within the proposed ROW for the proposed southbound bridge over Waxahachie Creek. A Phase II subsurface investigation was performed in January 2016 to further characterize the nature of the potential contamination at this location. Results showed that arsenic, lead, selenium, and mercury (RCRA 8 panel analysis conducted) were above the Texas Risk Reduction Program (TRRP) Tier 1 Commercial/Industrial Permissible Contamination Limit (PCL) and in some instances, above the Texas Specific-Background Concentrations. However, there is no further leaching or impact to the groundwater. Volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), and total petroleum hydrocarbons (TPH) were all below regulatory thresholds; therefore no further assessment is

needed at this time. Based on the results of the Phase II assessment, the Cabinet Specialists facility was determined to represent a low environmental risk to the project area.

Regulatory Records Review

The proposed project could potentially impact hazardous material sites because the proposed project would require ROW acquisition. An American Society for Testing Materials (ASTM 1527-13 Standard regulatory database search of available information was reviewed to identify known and potentially contaminated sites that would be in the vicinity of the proposed project (GeoSearch 2015a). There were 79 listings identified on the regulatory database in the GeoSearch Radius Report. Sites within or adjacent to the proposed ROW are listed in the *Hazardous Material Initial Site Assessment Report* on file at TxDOT-Dallas district office and the TxDOT-Environmental Affairs offices.

The majority of the sites are associated with industrial processing and manufacturing operations, automotive service stations, or commercial facilities. The presence of petroleum storage tanks or generation of hazardous waste within or adjacent to the proposed project indicates a potential for soil and groundwater contamination. An additional investigation would be required to confirm if contamination would be encountered at these sites during construction.

Additional environmental investigative services may be necessary for the facilities that pose an environmental concern to the project in order to provide a better determination of the impact(s) that the past operations may have on the Build Alternative. Two sites that will be displaced were determined to represent an environmental risk to the project area. Laticia's Los Tapatios (former Morgan Auto Sales) was determined to represent a high environmental risk to the project area due to an LPST case with closure pending well pluggings, which could have the potential to contaminate the proposed project ROW.

ROW and Displacements

There are three regulatory sites that are within the proposed ROW from which additional ROW will be required. One site will be displaced, Laticia's Los Tapatios. The other two sites, Pearman Oil Co. (high risk site) and the former Waxahachie Glass/Gary Martin Co (low risk

site) will only require a minor amount of ROW and, therefore, no displacements of the facilities will occur.

The contractor would prevent, minimize, and control the spill of hazardous materials in the construction staging area. The use of construction equipment within sensitive areas would be minimized or eliminated. All construction materials used for the project would be removed as soon as the work schedules permit. Should hazardous materials or substances be encountered, the authorities would be notified, and steps would be taken to protect personnel and the environment. Any unanticipated hazardous materials or petroleum contamination encountered during construction are to be handled according to applicable federal, state, and local regulations per TxDOT standard specifications. If necessary, the plans, specifications, and estimate would include provisions for the appropriate soil or groundwater management plans for activities within the areas. The management plans would be initiated in accordance with all applicable federal, state, and local regulations.

For more detailed information on the hazardous materials, please reference the *Hazardous Materials Initial Site Assessment (ISA) Report*, which includes maps and photos of the areas within and immediately adjacent to the existing and proposed ROW for the proposed project.

No-Build Alternative

The no-build alternative would not impact or cause indirect effects to hazardous wastes.

5.14 Traffic Noise

Build Alternative

Traffic Noise Analysis

The traffic noise analysis was accomplished in accordance with TxDOT's FHWA-approved *Guidelines for Analysis and Abatement of Roadway Traffic Noise* (2011). Traffic data used in this analysis were provided by TxDOT and Jacobs Engineering (refer to the *Traffic Noise Analysis Technical Report*). Sound from highway traffic is generated primarily from a vehicle's tires, engine, and exhaust. It is commonly measured in decibels and is expressed as "dB." Sound occurs over a wide range of frequencies. However, not all frequencies are detectable by the human ear; therefore, an adjustment is made to the high and low frequencies to approximate the way an average person hears traffic sounds. This adjustment is called *A-weighting* and is expressed as "dB(A)."

Also, because traffic sound levels are never constant due to the changing number, type, and speed of vehicles, a single value is used to represent the average or equivalent sound level and is expressed as “Leq.”

The traffic noise analysis typically includes the following elements:

- Identification of land use activity areas that might be impacted by traffic noise.
- Determination of existing noise levels.
- Prediction of future noise levels.
- Identification of possible noise impacts.
- Consideration and evaluation of measures to reduce noise impacts.

The FHWA has established the following Noise Abatement Criteria (NAC) for various land use activity areas that are used as one of two means to determine when a traffic noise impact would occur (Table 5-5).

Table 5-5: FHWA Noise Abatement Criteria (NAC)

Activity Category	dB(A) Leq	Description of Land Use Activity Area
A	57 (exterior)	Lands on which serenity and quiet are of extra-ordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	Residential
C	67 (exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (exterior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A-D or F
F	-	Agricultural, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	-	Undeveloped lands that are not permitted.

Source: TxDOT (2011)

A noise impact occurs when either the absolute or relative criterion is met:

Absolute criterion - The predicted noise level at a receiver approaches, equals, or exceeds the NAC. "Approach" is defined as one dB(A) below the NAC. For example: a noise impact would occur at a Category B residence if the noise level is predicted to be 66 dB(A) or above.
Relative criterion - The predicted noise level substantially exceeds the existing noise level at a receiver even though the predicted noise level does not approach, equal, or exceed the NAC. "Substantially exceeds" is defined as more than 10 dB(A). For example: a noise impact would occur at a Category B residence if the existing level is 54 dB(A) and the predicted level is 65 dB(A).

When a traffic noise impact occurs, noise abatement measures must be considered. A noise abatement measure is any positive action taken to reduce the impact of traffic noise on an activity area.

The FHWA traffic noise modelling software (TNM 2.5) was used to calculate existing and predicted traffic noise levels. The model primarily considers the number, type, and speed of vehicles; roadway alignment and grade; cuts, fills, and natural berms; surrounding terrain features; and the locations of activity areas likely to be impacted by the associated traffic noise.

Existing and predicted traffic noise levels were modelled at receiver locations (**Table 5-6** and **Exhibit 11**), which represent the land use activity areas adjacent to the proposed project that might be impacted by traffic noise and potentially benefit from feasible and reasonable noise abatement.

Table 5-6: Traffic Noise Levels dB(A) Leq

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2035	Change (+/-)	Noise Impact
R1 Trail	C	67	51	58	+7	No
R2 Trail	C	67	53	59	+6	No
R3 Trail	C	67	57	60	+3	No
R4 Trail	C	67	58	60	+2	No
R5 Sports	C	67	56	58	+2	No
R6 Farmers Market	C	67	55	56	+1	No
R7 Meeting Room	D	52	24	29	+5	No
R8 Restaurant	E	72	56	60	+4	No
R9 Government	D	52	30	39	+9	No
R10 Church Playground	C	67	57	58	+1	No
R11 Restaurant	E	72	61	63	+2	No

Source: Study Team (2015)

As indicated in **Table 5-6** above, the proposed project would result in no traffic noise impacts. However, to avoid noise impacts that may result from future development of properties adjacent to the project, local officials responsible for land use control programs must ensure, to the maximum extent possible, no new activities are planned or constructed along or within the predicted (2038) noise impact contours (**Table 5-7**).

Table 5-7: Noise Impact Contours

Land Use	Impact Contour	Distance from Right of Way
NAC category B & C	66 dB(A)	At ROW Line
NAC category E	71 dB(A)	Within ROW

Source: Study Team (2015)

A copy of this traffic noise analysis would be made available to local officials. On the date of approval of this document (Date of Public Knowledge), FHWA and TxDOT are no longer responsible for providing noise abatement for new development adjacent to the project. For more detailed information on traffic noise impacts please refer to the *Traffic Noise Analysis Technical Report* located at the TxDOT-Dallas District office and the TxDOT-Environmental Affairs offices.

No-Build Alternative

Under the No-Build Alternative, traffic noise levels at modelled receivers representing land use areas where frequent human activity occurs, including the Waxahachie Hike and Bike Trail, would increase due to congestion that will not be mitigated by the proposed project. The potential for the proposed project to result in induced growth and related effects was determined using TxDOT's *Induced Growth Indirect Impacts Decision Tree* (TxDOT 2014).

5.15 Induced Growth

Based on the results of the Induced Growth Indirect Impacts Decision Tree and in consideration of the small size and scope of the proposed project, the proposed project is not likely to induce growth within the area, and further analysis of induced growth related to the project is not required.

5.16 Cumulative Impacts

Based on the results of the Cumulative Impacts Decision Tree, the potential cumulative impacts of the proposed project are summarized below and were considered in the cumulative effects analysis, summarized in **Table 5-8**. These resources were analyzed in more detail to determine if the proposed project would result in cumulative effects.

The following **Table 5-8** summarizes the cumulative analysis conducted for the proposed project; and the summarized results of the detailed analysis with the cumulative effects can be found in the *Indirect and Cumulative Impacts Technical Report* located at the TxDOT-Dallas District office and the TxDOT-Environmental Affairs offices.

Table 5-8: Resources Carried Forward in Cumulative Impact Analysis

Resource	Direct Impacts	Indirect Impacts	Current Health	Conclusion
Non-Archeological Historic Resources	Displacement of three buildings in National Register Historic Districts (NRHD) and replacement of the National Register of Historic Places (NRHP)-listed US 77 viaduct.	None.	Good: the City's listed NRHDs are well-regulated and protected.	The proposed project is not likely to contribute beneficially to the long-term health of historic-age resources in the RSA. Although the project would displace three historic buildings and the Viaduct, Federal, state, and local regulations are in place that afford long-term protection. Substantial degradation to historic-age resources in the RSA is not anticipated.
Southern Crawfish Frog (*Lithobates areolatus)*	Impact to approximately 1.40 acres of suitable habitat. *May impact, not likely to adversely impact* this SGCN. No species-specific best management practices (BMPs) in place.	None.	Declining: the species' major threat is habitat loss and degradation through drainage of its breeding habitat. Flood Drainage Prevention Ordinance in place.	Although the project contributes to some habitat loss, the City's Flood Drainage Prevention Ordinance is in place. The combination of the proposed project with other actions in the RSA is not likely to contribute beneficially to the long-term health of the southern crawfish frog. Measures are in place that may diminish the intensity and pace of the cumulative degradation to the vegetation that serves as this species habitat.
Parklands	Realignment of approximately 175 feet of the Waxahachie Hike & Bike Trail and removal of mature woody trees in park.	None.	Good: inventory of parklands is growing. Park Land Dedication Ordinance in place.	Although 0.42 acres of parkland will be acquired for the proposed bridge, the trail will continue to function as a trail once construction is completed. The combination of the proposed project with other actions in the RSA would result in a cumulative benefit to parkland resources.

Source: US 77 Waxahachie EA Study Team 2015

5.17 Construction Phase Impacts

The contractor will observe proper maintenance and idling of construction equipment to control emissions of particulate matter. The contractor will control the generation of dust by site watering. Disruptions will be minimized to the extent possible by the timely notification of affected residents and business owners through posted notices, personal contact, or other notification procedures. These procedures could include rerouting traffic, barricading, using traffic cones, or applying other measures deemed necessary and prudent by TxDOT and the contractor to comply with all Federal, state, and local traffic and safety regulations. Signage and barrier placement should alert motorists to the inevitable reordering of travel patterns, both during construction and over the long term, as motorists find cut-through routes to shorten travel times.

During construction, procedures to minimize traffic congestion, noise, dust, and risk to public safety should be specifically adapted to the circumstances of the Build Alternative. Provisions will be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures, such as work-hour controls and proper maintenance of muffler systems. Refer to Section 5.12 of this EA document for a discussion of the construction-related air emissions.

Greenhouse Gases and Climate Change

The project is expected to improve traffic flow, which should reduce operational greenhouse gas emissions. Construction greenhouse gas emissions will result primarily from fuel used in construction equipment.

6 Agency Coordination

In addition to coordination with the public, coordination letters were sent to TCEQ, TPWD, the USFWS, the Fort Worth districts for the USACE, the Natural Resources Conservation Service, and the Texas Historical Commission (THC). The correspondence notified each agency of the proposed project and invited each agency to the Public Meeting. Letters sent to these agencies, and any responses received are included in the **Appendix G and H.**

7 Public Involvement

To date, TxDOT has held one public meeting for the proposed project. For details on the public involvement planned for the proposed project, please see the *Public Involvement Plan* located at the TxDOT-Dallas District office and the TxDOT-Environmental Affairs offices. The Public Meeting was held on Tuesday, February 16, 2016, from 5:00 p.m. to 7:00 p.m., at the Waxahachie Civic Center, 2000 Civic Center Lane, Waxahachie, Texas, 75165. The purpose of the Public Meeting was to distribute additional project information and allow the public an opportunity to provide input.

For more details on the Public Meeting, please see the *Public Meeting Summary Report* located at the TxDOT-Dallas District office and the TxDOT-Environmental Affairs offices, where the documentation may be inspected and copied upon request. The Comment and Response Matrix from the Public Meeting is located in **Appendix I**.

This project does involve the addition of travel lanes on a new bridge that is parallel to the existing bridge (to be re-built). A notice of impending construction will be provided to owners of adjoining property and affected local governments and public officials. The notice may be provided via a website when the recipient has previously been informed of the relevant website address. This notice must be provided after the environmental decision (i.e. FONSI or recommendation to prepare an EIS), but before earthmoving or other activities requiring the use of heavy equipment.

8 Environmental Permits, Issues and Commitments

The following Environmental Permits, Issues, and Commitments (EPIC) are included in the project file. EPICs relevant to the proposed project are as follows:

1. Section 402: Because the project would include five or more acres of earth disturbance, TxDOT would comply with TCEQ's Texas Pollutant Discharge Elimination System Construction General Permit. A SW3P would be implemented, and a construction site notice would be posted at the construction site. A Notice of Intent would be required.
2. Section 401/404: The proposed project would be authorized by NWP 14 without a PCN and NWP 25 without a PCN. Coordination would occur with the USACE during the detailed design phase to determine appropriate permitting and/or mitigation for Section 404 impacts. BMPs may include but will not be limited to:
    - Category I Erosion Control (planting temporary vegetation in disturbed areas),
    - Category II Sedimentation Control (silt fences in combination with rock berms),
    - Category III Post-Construction Total Suspended Solids Control (installation of vegetation lined drainage ditches).
3. Cultural Resources: In the unlikely event that significant cultural resources are discovered during construction, TxDOT will immediately initiate cultural resources discovery procedures. All work in the vicinity will immediately cease until a specialist from TxDOT and/or the Texas Historical Commission can assess the discovery's significance and the need for additional investigation, if necessary.
4. Traffic Operations: Project construction would be phased and coordinated with local authorities to minimize traffic congestion and inconveniences to adjoining residences.
5. Vegetation Resources: Special habitat features identified within the ROW included more than 1.0 acre of mature woody vegetation, dense mature brush and riparian

vegetation. Due to the nature of these features, coordination with TPWD regarding the proposed project would be required per TAC43 (1) (2) (B) 2.22(d) (2) (A-G).

6. Federal Listed, Proposed Threatened, Endangered Species, Critical Habitat, State Listed Species, Candidate Species and Migratory Birds: As the project area provides suitable habitat for the Southern Crawfish Frog, Plains Spotted Skunk, Louisiana Pigtoe, Texas Heelsplitter, Texas Garter Snake, and Timber/Canebrake Rattlesnake, in accordance with provision 4(A)(ii) of the TxDOT – TPWD MOU and at the TxDOT Dallas District's discretion, TxDOT and TPWD would consult on the planning and implementation of any feasible compensatory mitigation plans to address impacts to vegetation, fish or wildlife species or their habitat. Coordination with the TPWD would be required per TAC43 (1) (2) (b) 2.22(D) (2) (A-G).

   Between October 1 and February 15, the contractor would remove all old migratory bird nests from any structures that would be affected by the proposed project, and complete any bridge work and/or vegetation clearing. In addition, the contractor would be prepared to prevent migratory birds from building nests between February 15 and October 1, per the EPIC plan sheet. In the event that migratory birds are encountered on-site during project construction, adverse impacts on protected birds, active nests, eggs, and/or young would be avoided.

7. Hazardous Materials or Contamination Issues: The contractor would take appropriate measures to prevent, minimize, and control spillage of hazardous materials in the construction staging area. All materials being removed or disposed of by the contractor would be done in accordance with applicable state and federal laws and as not to degrade ambient water quality. All of these measures would be enforced under appropriate specifications in the plan, specification, and estimate stage of the project.

   Additional environmental investigative services may be necessary for the facilities that pose an environmental concern to the proposed project in order to provide a better determination of the impact(s) that these past operations may have on the proposed project. As detailed project design is developed for the project, TxDOT would evaluate the potential for these hazardous materials sites to affect the proposed construction. Should hazardous materials/substances be encountered, TxDOT would be notified and steps would be taken to protect personnel and the

environment. If necessary, the PS&E would include provisions for the appropriate soil and/or groundwater management plans for activities within these areas. The management plans would be initiated in accordance with all applicable federal, state and local regulations.

8. Air Quality: Potential particulate matter emissions would be minimized by using fugitive dust control measures such as covering or treating disturbed areas with dust suppression techniques, sprinkling, covering loaded trucks, and other dust abatement controls, as appropriate.
9. Traffic Noise: Provisions would be included in the plans and specifications that require the contractor to make every reasonable effort to minimize construction noise through abatement measures such as work-hour controls and proper maintenance of muffler systems. Noise walls are not required.
10. Farmland: No action required for the proposed project.
11. Floodplains: Because parts of the project are located within Waxahachie Creek floodplain, coordination with the local floodplain administrator would be required.
12. Historic Mitigation: TxDOT will construct a mitigation exhibit on South College Street across from the Missouri-Kansas-Texas railroad depot in downtown Waxahachie. The mitigation exhibit will include interpretive materials that present the history of the original US 77 viaduct.
13. Archeological Mitigation: TxDOT will conduct data recovery excavations as partial mitigation.
14. Other Environmental Issues: No action required for the proposed project.

9 Conclusion

The Build Alternative would best meet the public's need for increased capacity and provide for long-term management of future traffic needs throughout the region. Additionally, the Build Alternative would upgrade the existing infrastructure to meet current FHWA and TxDOT design standards for highways and viaducts, in addition to improving roadway safety.

The Build Alternative would require five commercial displacements, impact to the historic viaduct, and impact the Waxahachie Hike and Bike Trail, both Section 4(f) properties. There would be no residential displacements. The Build Alternative would require approximately 3.8 acres for additional ROW and may impact three state-listed threatened species and three Species of Greatest Conservation Need in the study area. TxDOT would complete mussel surveys for the Texas heelsplitter and Louisiana pigtoe, and conduct any necessary coordination with TPWD and implement the associated BMPs prior to and during construction. The Build Alternative would not affect any of waters of the U.S., including wetlands.

Recommendation(s): Significance Determination, Alternative Selection, and FONSI

This EA concludes that the Build Alternative is necessary for safe and efficient travel within the study area and larger region. The Build Alternative would not have a significant impact or cause indirect effects on the human or natural environment.

Unless significant impacts are identified during the public review period or at the public hearing, a Finding of No Significant Impact (FONSI) is recommended for the proposed action.

References

Elliott, L. 2010. *Draft Descriptions of Systems, Mapping Subsystems, and Vegetation Types for Phase III*. Texas Parks and Wildlife Department, GIS Maps & Apps. Website: http://www.tpwd.state.tx.us/gis/gallery/. Accessed April 2015.

Griffith, G., S. Bryce, J. Omernik, and A. Rogers. 2007. Ecoregions of Texas. Project report to the Texas Commission on Environmental Quality.

GeoSearch. 2015a. Radius Report. www.geo-search.com. Accessed August 2015.

_____. 2015b. GeoPlus Oil and Gas Report. Accessed August 2015.

_____. 2015c. GeoPlus Water Well Report. Accessed August 2015.

LoopNet,com. 2015. Accessed August 2015.

Moore, David W., Jr. 2016. *US 77 Report for Historical Studies Survey*. Project report to the Texas Department of Transportation.

North Central Texas Council of Governments. 2015. *Mobility 2040*. Website: http://www.nctcog.org/trans/mtp/2040/

Pemberton, Fiona H., and Maynard B. Cliff. 2007. *Cultural Resource Reconnaissance for Proposed Reconstruction of US Highway 77 in Waxahachie, Ellis County, Texas*. PBS&J, Document No. 070040.

2008. *Geoarcheological Investigations for the Texas Department of Transportation for Proposed US 77 Viaduct Reconstruction Waxahachie, Ellis County, Texas*. PBS&J, Document No. 080074.

Texas Commission on Environmental Quality (TCEQ). 2014. 2014 Texas Integrated Report of Surface Water Quality for Clean Water Act Sections 305(b) and 303(d). Website: https://www.tceq.texas.gov/waterquality/assessment/14twqi/14txir. Accessed August 2015.

Texas Department of Transportation (TxDOT). 2002. Storm Water Management Guidelines for Construction Activities. Website: http://onlinemanuals.txdot.gov/txdotmanuals/hyd/storm_water_management.htm Accessed August 2015.

Texas Department of Transportation (TxDOT). 2014. *Induced Growth Indirect Impacts Decision Tree*. Website: http://www.txdot.gov/inside-txdot/division/environmental/compliance-toolkits/impacts.html. Accessed August 2015.

Texas Department of Transportation (TxDOT). 2016. *Statewide Transportation Improvement Program 2015-2018*. Website: http://www.txdot.gov/inside-txdot/division/transportation-planning/stips/2015-2018.html

Texas Parks and Wildlife Department (TPWD). 2016a. *Texas Natural Diversity Database Records*. Received August 26 and 31, 2015.

_____. 2016b. *Annotated County List of Rare Species, Ellis County*. Website: http:tpwd.texas.gov.gis.rtest. Last revision May 16, 2016. Accessed August, 2016.

Texas Parks and Wildlife Department (TPWD). 2016. *The Texas Natural Diversity Database (TXNDD) Report*. December, 2014. Published by TPWD. Accessed April 25, 2016.

U.S. Census Bureau. 2010. (Table P9: Hispanic or Latino, and not Hispanic or Latino by Race). Website:http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_P9&prodType=table

http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml. Accessed January 15, 2016.

U.S. Census Bureau. 2010. (Table B19013: Median Household Income in the Past 12 Months (In 2013 Inflation-Adjusted Dollars). Website: http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml. Accessed January 15, 2016.

U.S. Census Bureau. 2010. (Table B16004: Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over). Website: http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml. Accessed January 15, 2016.

United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS). 2016. Ellis County, Texas – Web Soil Survey. Electronic document, http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.asp, accessed April, 2016.

U.S. Fish and Wildlife Service (USFWS). 2016a. Species by County Report for Ellis County, Texas. Environmental Conservation Online System (ECOS). http://ecos.fws.gov/ecp/. Accessed August 2015.

_____. 2016b. *Information, Planning, and Conservation* (IPac) project planning tool, ECOS. http://ecos.fws.gov/ipac/. Accessed August 24, 2015.

United States Geological Society (USGS) 7.5 Minute Topographic Maps (Waxahachie). http://store.usgs.gov. Accessed August 2015.

Appendices

Appendix A – Project Location Map

Appendix B – Project Photos

Appendix C – Schematics

Appendix D – Typical Sections

Appendix E – Plan and Program Excerpts

Appendix F – Resource-specific Maps

Appendix G – Resource Agency Coordination

Appendix H – Section 4(f) Documentation

Appendix I – Comment and Response Matrix from Public Meeting

Appendix A – Project Location Map

Legend

US 77 Project Limits

US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

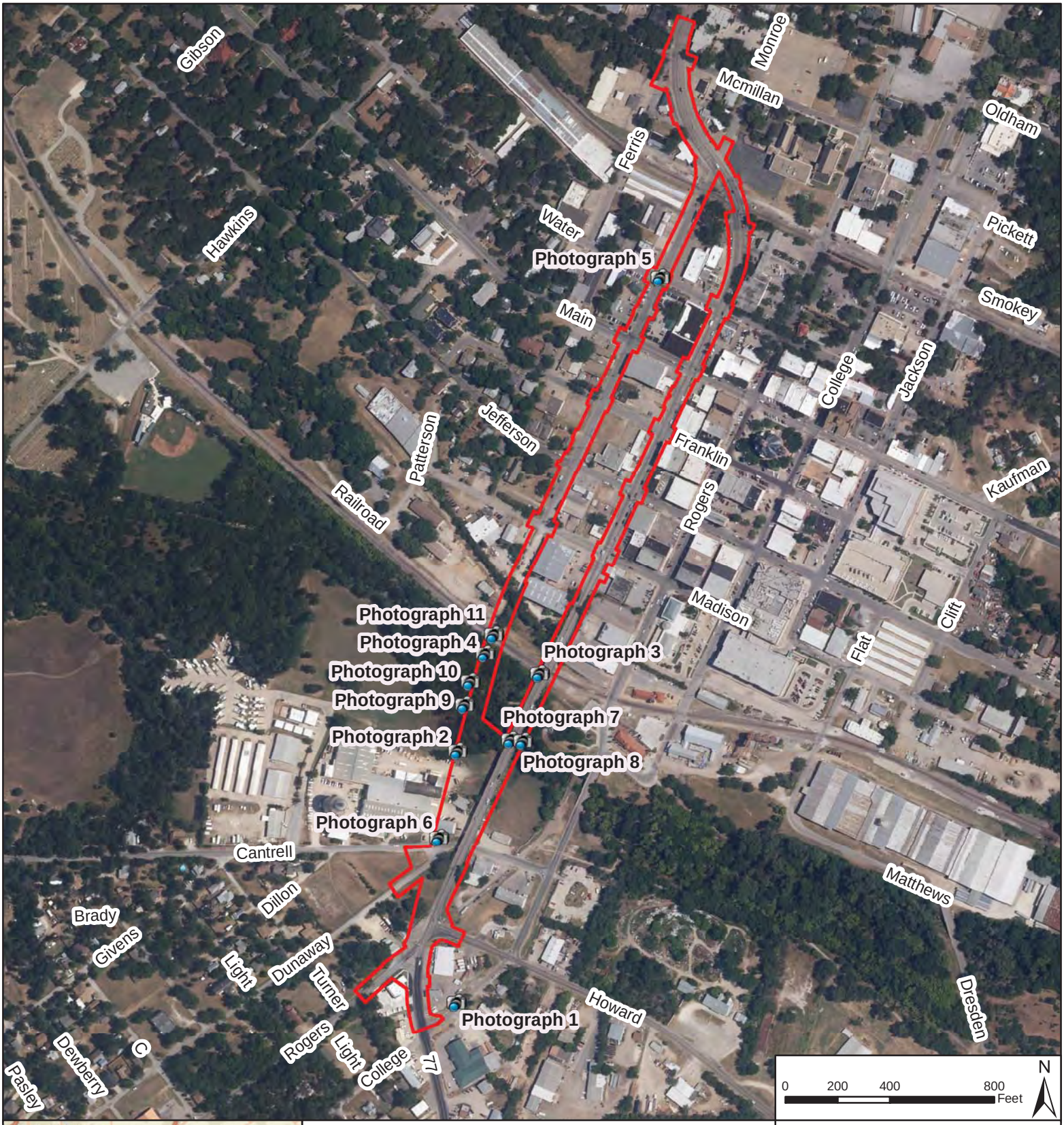
Appendix A: Project Location Map

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)

Appendix B – Project Photos



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US 77 Project Limits

Photograph Location

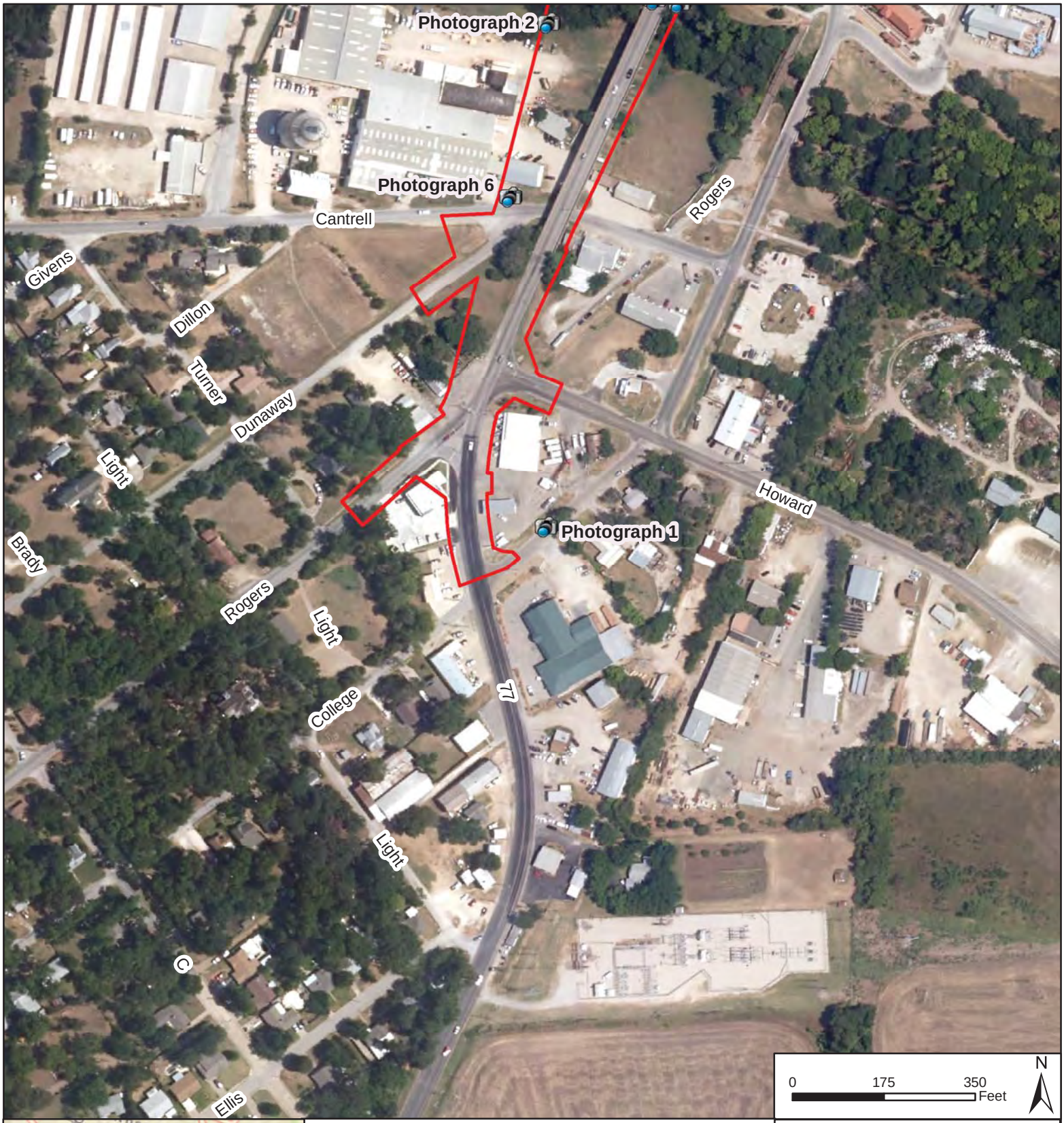
US 77 Improvements Project

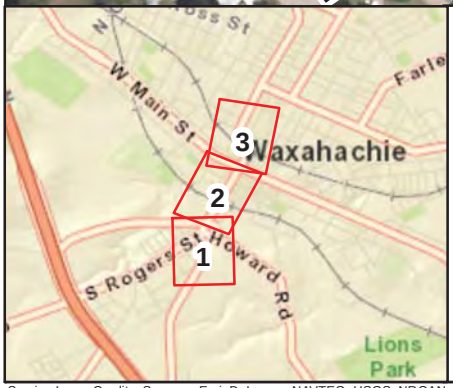
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Appendix B:(Overview) Photograph Locations

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055





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US 77 Project Limits

Photograph Location

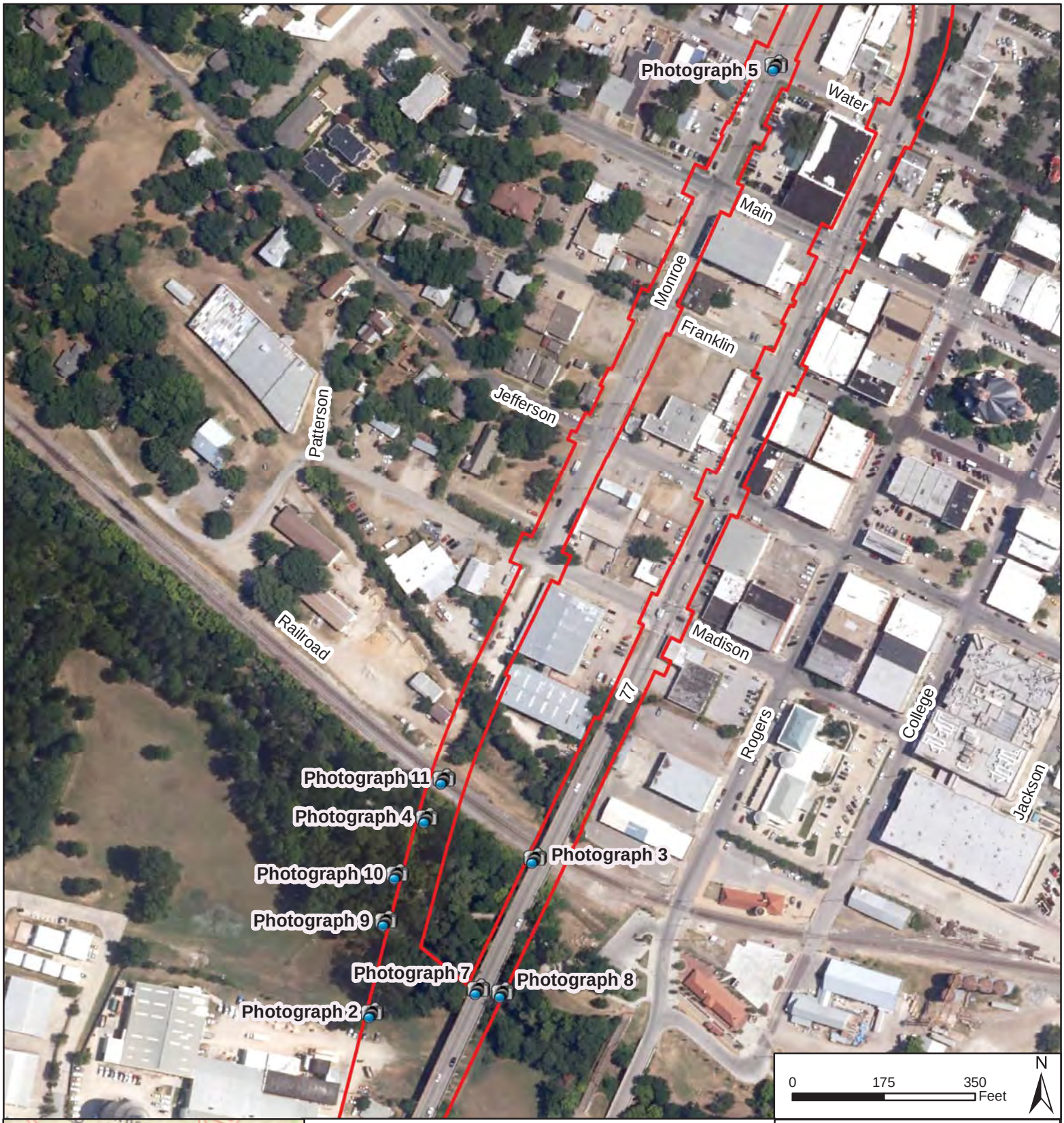
US 77 Improvements Project

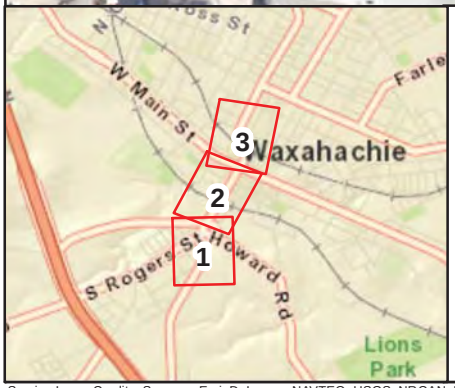
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Appendix B: Photograph Locations

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055





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US 77 Project Limits

Photograph Location

US 77 Improvements Project

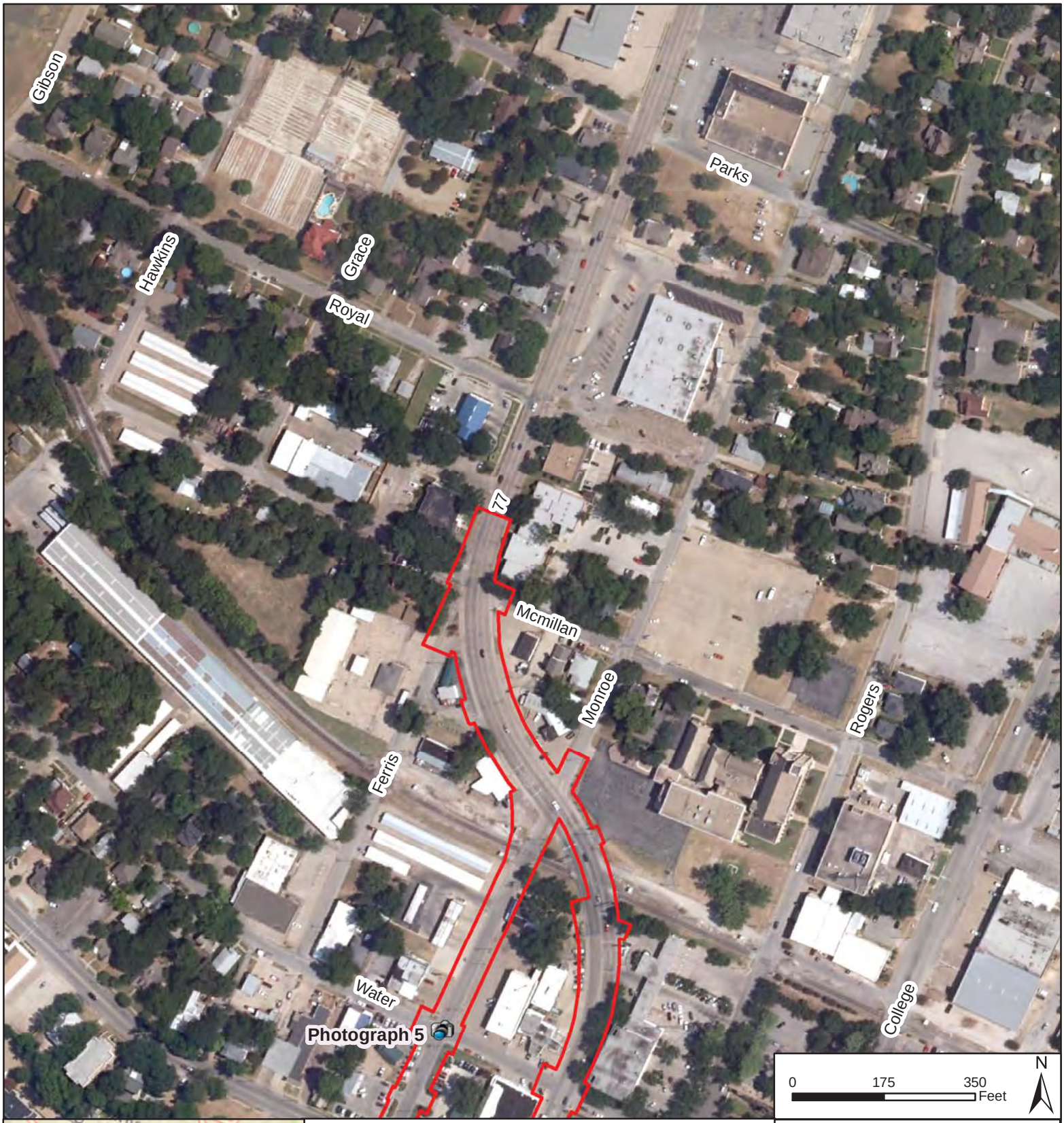
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

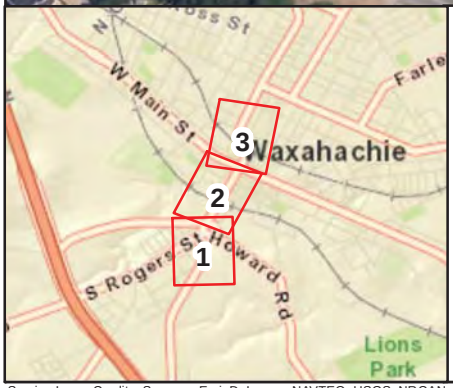
Appendix B: Photograph Locations

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2015); TPWD EMST (2015), TxDOT Dallas District EMST (2015)





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US 77 Project Limits

Photograph Location

US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Appendix B: Photograph Locations

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Photograph 1. College Street, approximately 250 feet southwest of Howard Street, facing northeast.

Photograph 2. Southern portion of proposed southbound bridge crossing, facing south.

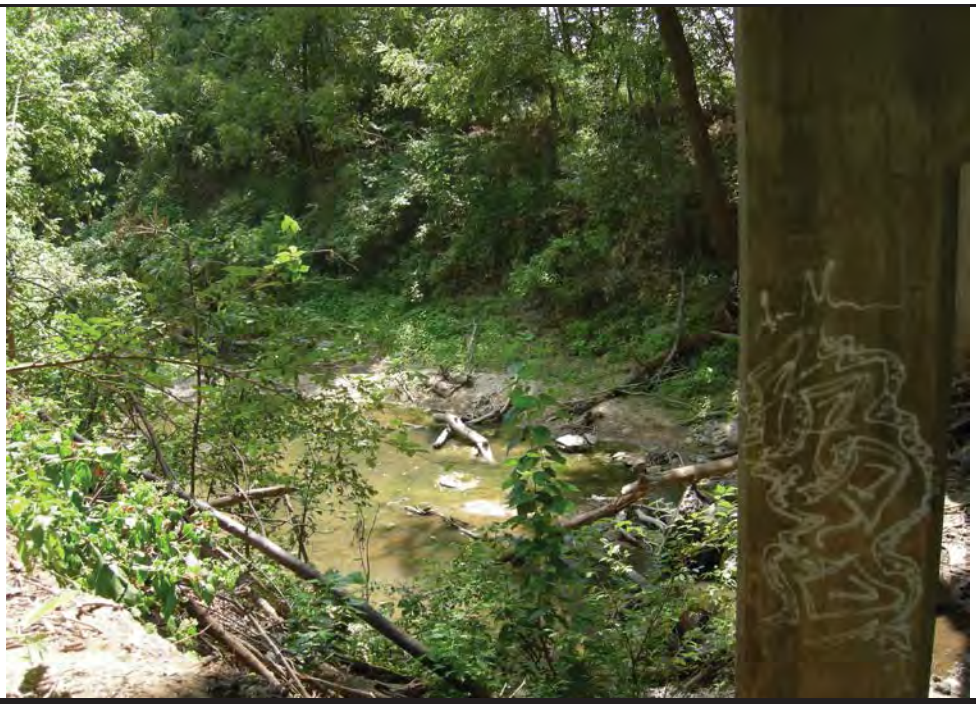
Photograph 3. Northern portions of the US 77 bridge crossing at Waxahachie Creek, facing south.

Photograph 4. Northern portion of proposed southbound bridge crossing, facing south.

Photograph 5. Monroe Street at Water Street facing south.

Photograph 6. Cantrell Street 100 feet west of US 77 facing south- southeast.

Photograph 7. View of Waxahachie Creek beneath existing US 77 bridge.



Photograph 8. View of Waxahachie Creek and wooded floodplain to east of existing US 77 bridge. Shows suitable Riparian habitat for southern crawfish frog, Louisiana pigtoe. Texas Heelsplitter, plains spotted skunk, timber rattlesnake, and Texas Garter Snake.

Photograph 9. Waxahachie Creek at proposed southbound bridge crossing location facing east.

Photograph 10. View of wooded floodplain at proposed bridge location 100 feet north of Waxahachie Creek facing south.

Photograph 11. Grassy area north of woodland edge of Waxahachie Creek floodplain at proposed bridge location facing south.

Appendix C – Schematics

TEXAS DEPARTMENT OF TRANSPORTATION

DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES K. SELMAN, P.E.
DISTRICT ENGINEER

ELLIS COUNTY

US 77

CSJ: 0048-03-050 & 055

FROM: SOUTH OF FM 66
TO: NORTH OF McMILLAN ST.

NET LENGTH OF PROJECT: 0.791 MILES

FUNCTIONAL CLASSIFICATION:
URBAN PRINCIPAL ARTERIAL

US 77: 10,300 ADT (2015) 14,000 ADT (2035)
MONROE: 10,300 ADT (2015) 14,200 ADT (2035)

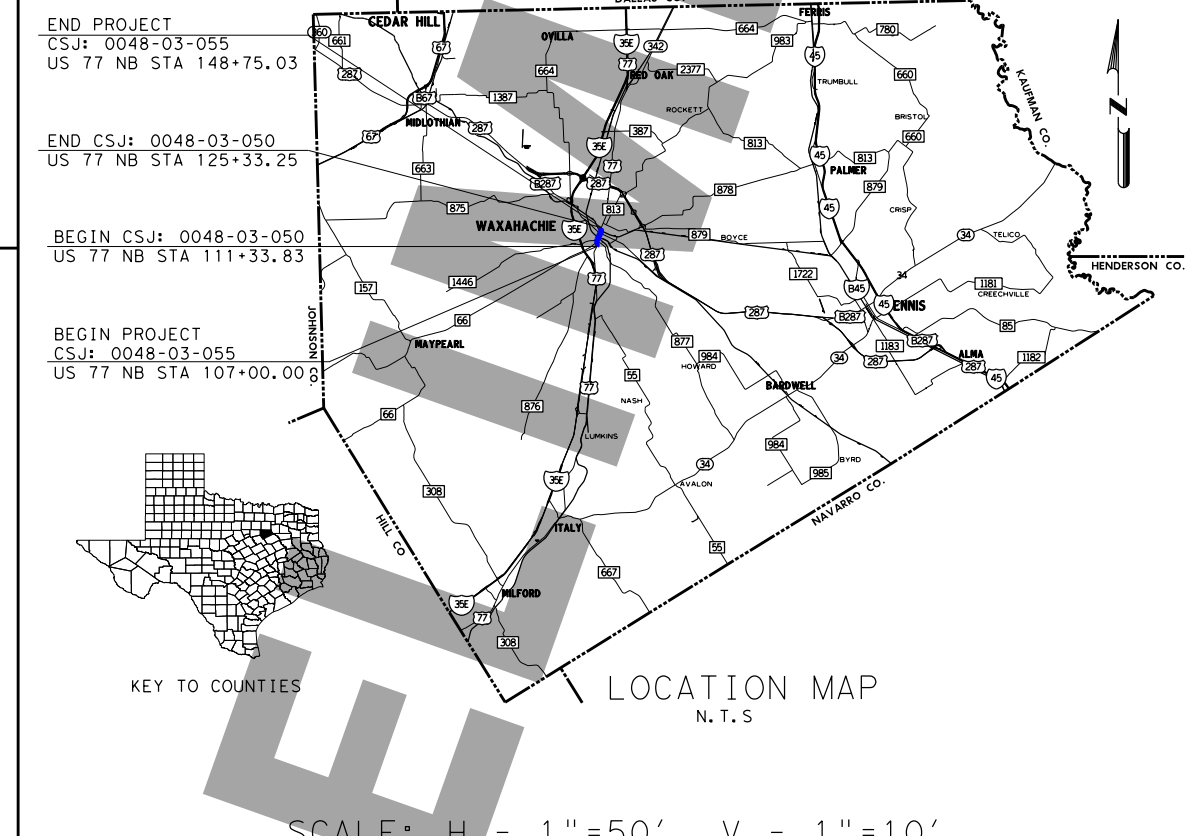
DESIGN SPEED
PRINCIPAL ARTERIAL (US 77) = 30 MPH
CROSS STREETS = 25 MPH

COUNTY: ELLIS
DATE: AUG 2016

DESIGN SCHEMATIC FOR US 77

ROLL 1 OF 1

PRELIMINARY



LOCATION MAP
N.T.S

SCALE: H - 1"=50', V - 1"=10'

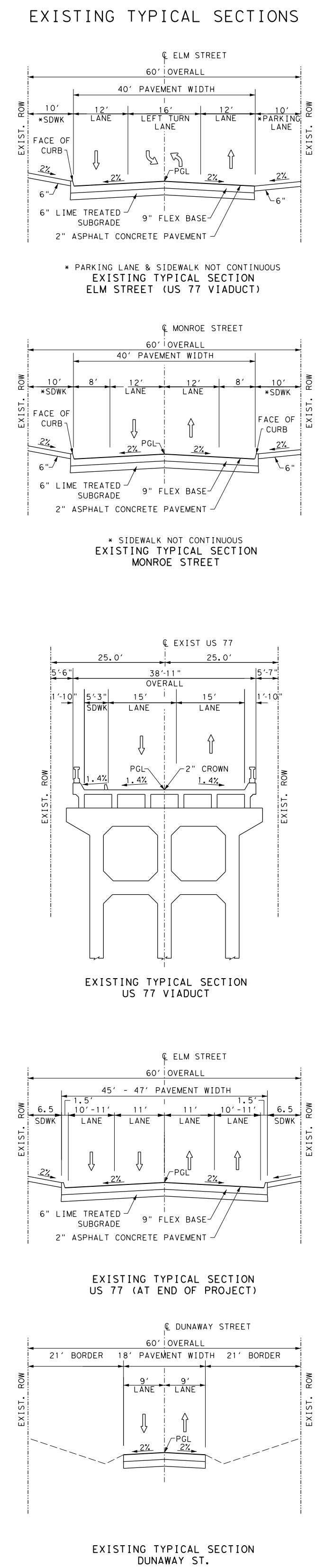
PRINTED: $DATE$

SCHEMATIC PREPARED BY:
BROWN & GAY ENGINEERS, INC.
REGISTRATION NUMBER F-1046
FOR INTERIM REVIEW ONLY. NOT FOR PERMITTING, BIDDING OR CONSTRUCTION.
Prepared by or under the Direct Supervision of:
MICHAEL G. ZIEMINSKI 103845
NAME P.E. NUMBER
NAME P.E. NUMBER
$DATE$
DATE

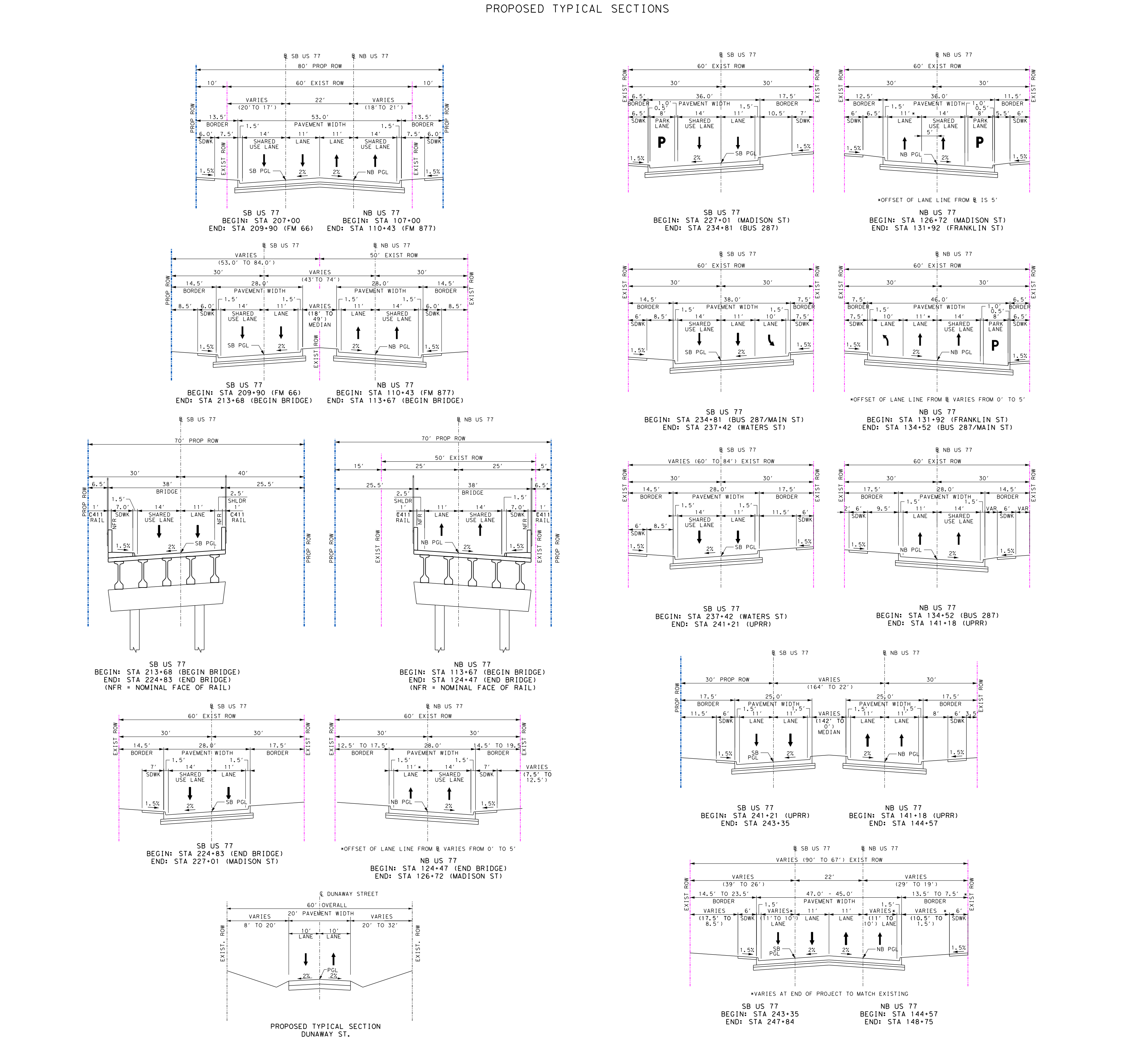
Brown & Gay Engineers, Inc.
2595 Dallas Parkway, Suite 204, Frisco, TX 75034
Tel: 972-464-4800 • www.browngay.com
TBPE Registration No. F-1046

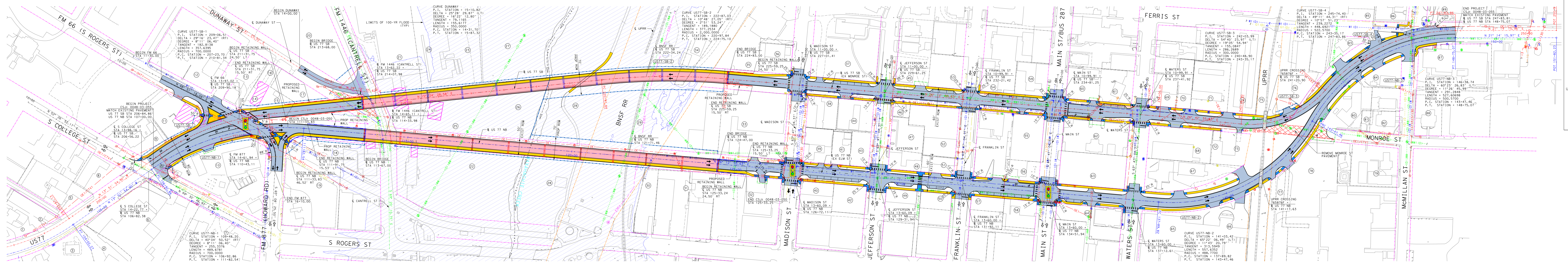
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF PRELIMINARY SUBMITTAL.
IT IS NOT INTENDED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

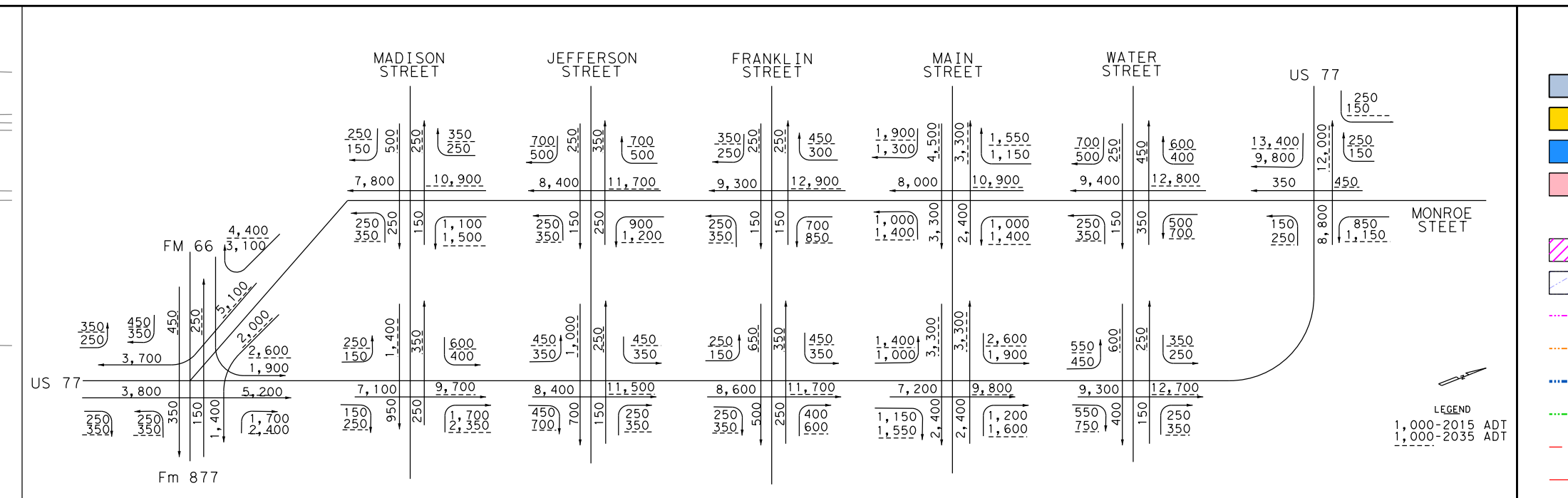
EXISTING TYPICAL SECTIONS



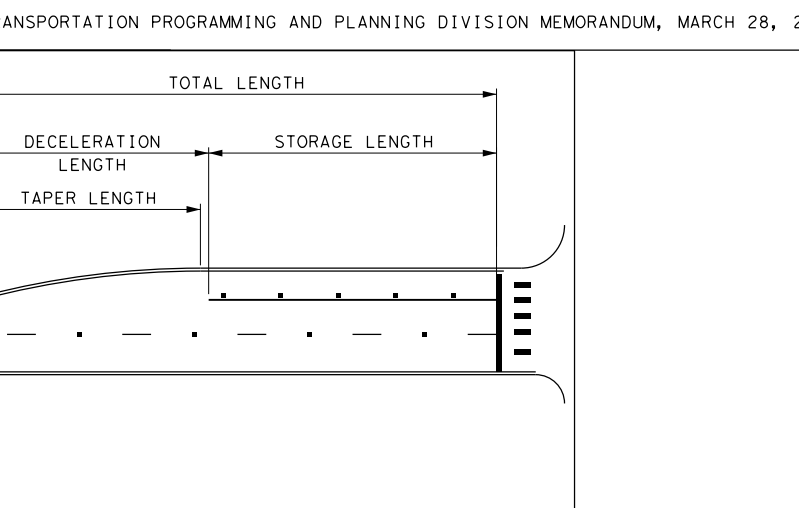
PROPOSED TYPICAL SECTIONS





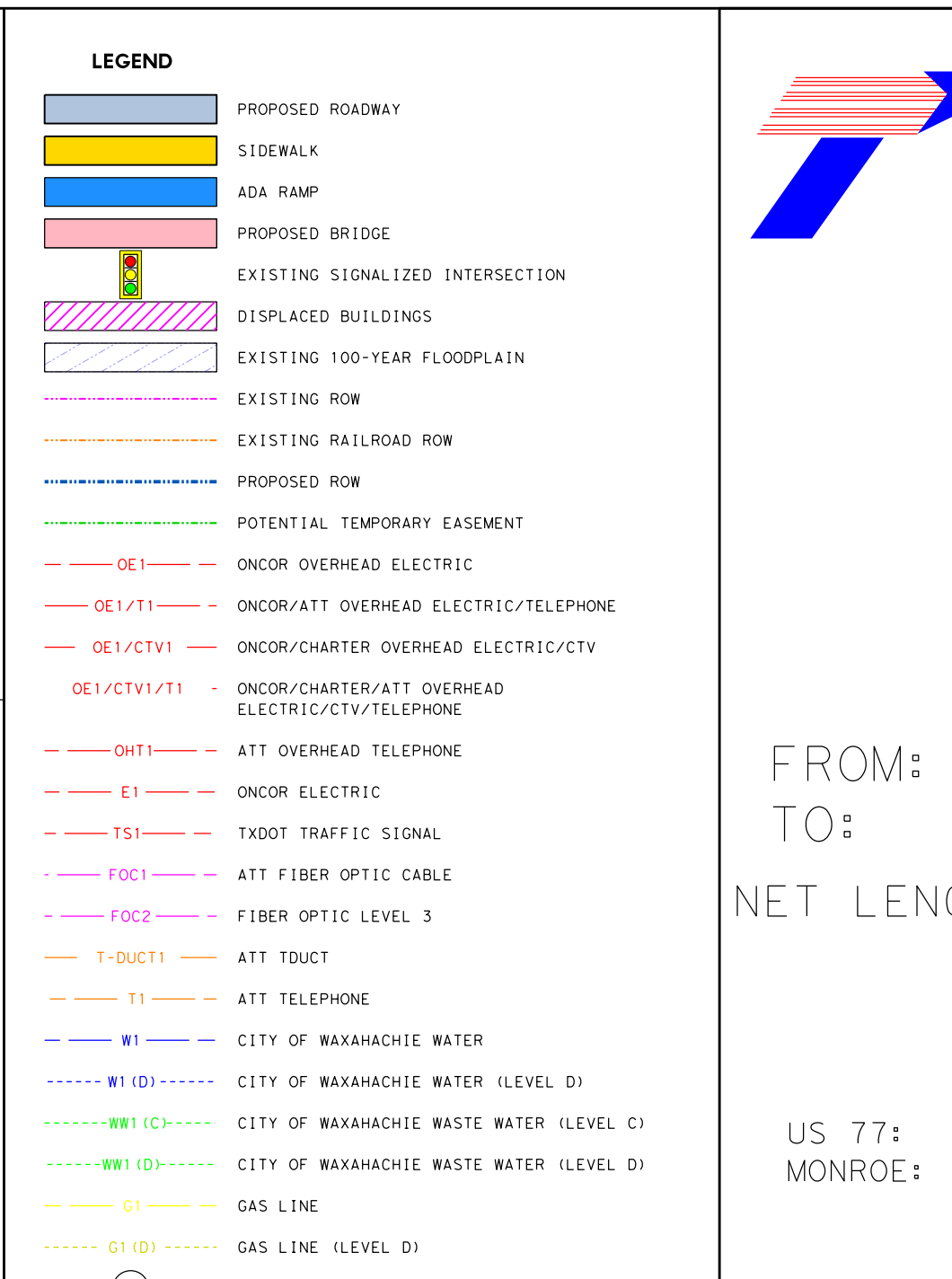


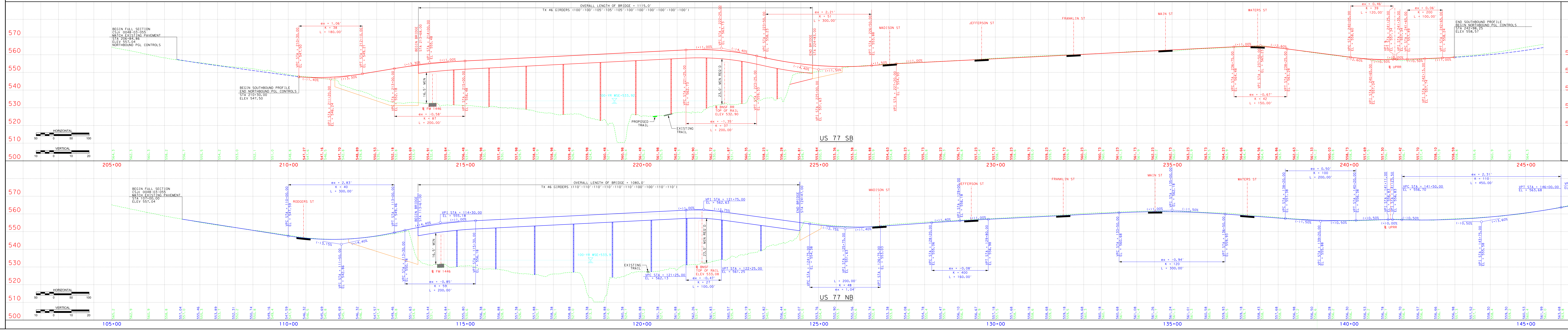
SOURCE: TEXAS DEPARTMENT OF TRANSPORTATION; TRANSPORTATION PROGRAMMING AND PLANNING DIVISION MEMORANDUM, MARCH 28, 2014

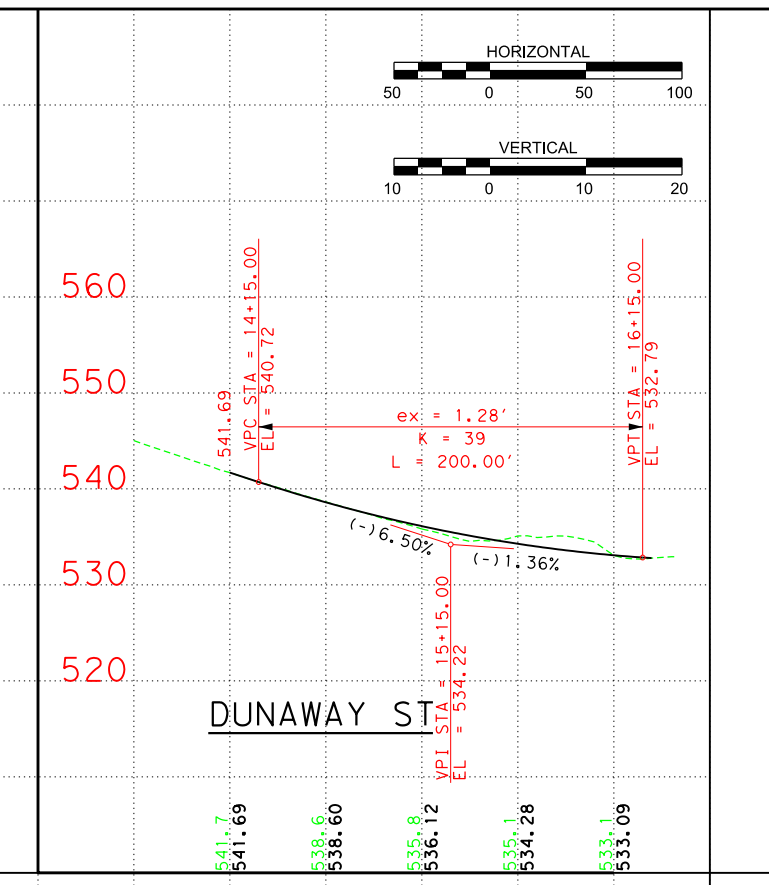


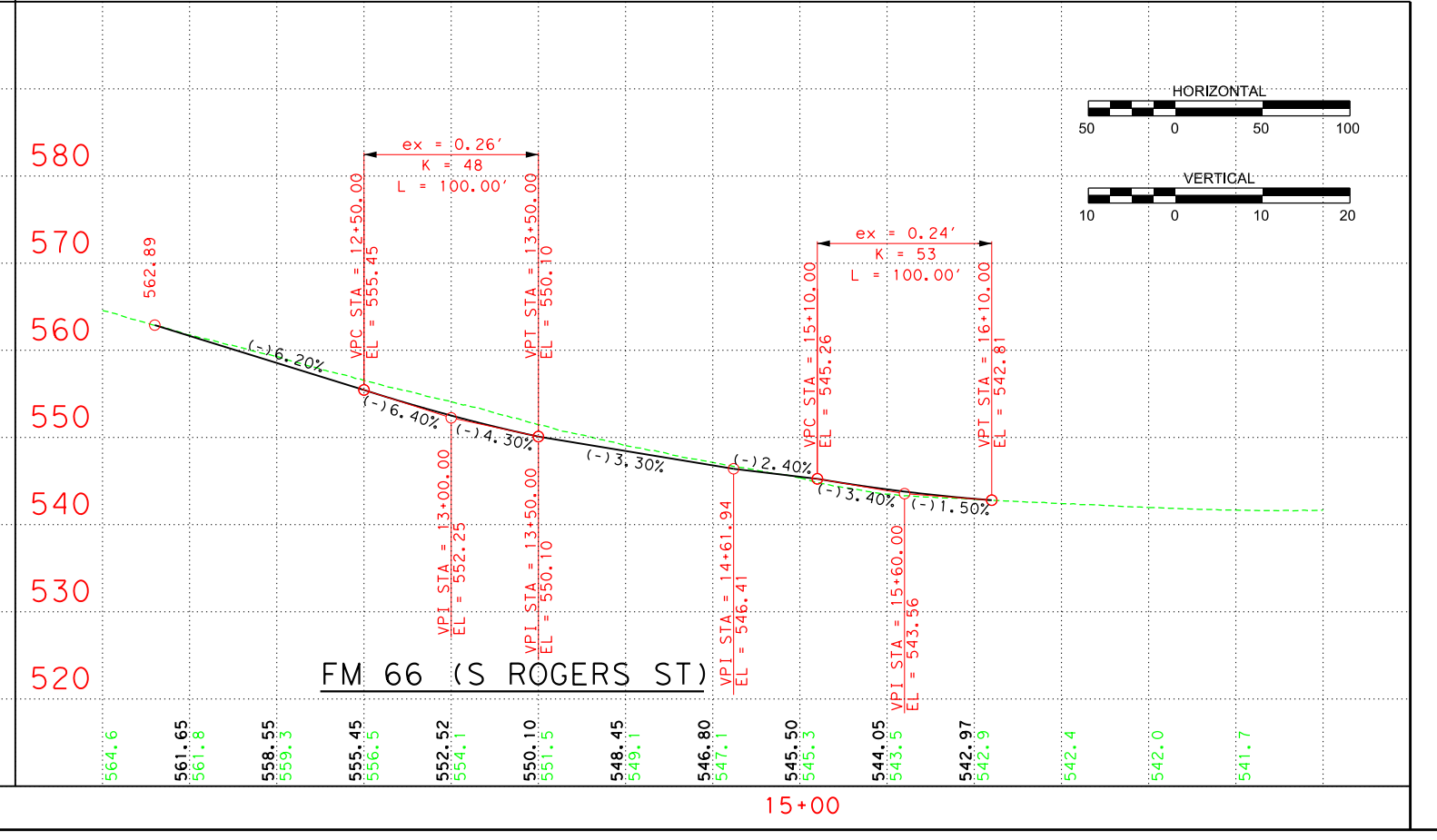
TURN LANE/LANE SHIFT DATA

LOCATION	DIRECTION	DECEL LENGTH (FT)	TAPER LENGTH (FT)	STORAGE LENGTH (FT)	LEFT/RIGHT TURN	TOTAL LENGTH (FT)
ROGERS ST	NB	180	200	100	LEFT	280
MAIN ST	NB	82	82	100	LEFT	182
MAIN ST	SB	89	84	100	LEFT	189









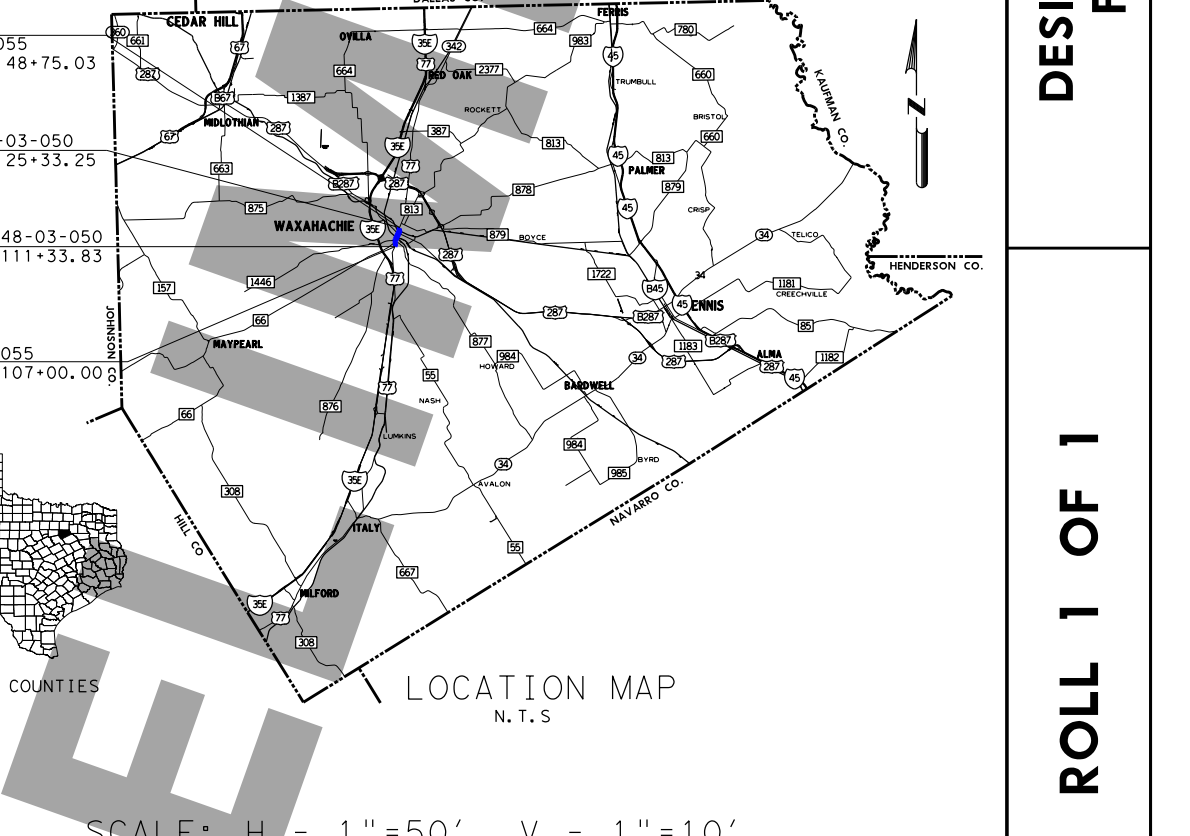
NOTES:

1. SCHEMATICS ARE BASED ON AERIAL SURVEYS DATED JANUARY 04, 2015.
2. FINAL DRIVEWAY LOCATIONS AND WIDTHS TO BE DETERMINED DURING FINAL PS&E DESIGN.
3. SUPERELEVATION AXIS OF ROTATION IS ABOUT THE PGL.
4. DIMENSIONS ARE TO THE FACE OF CURB, EDGE OF PAVEMENT OR RAIL, BARRIER, OR WALL.
5. APPROXIMATE 100 YEAR FLOODPLAIN LIMITS ARE BASED ON UPON FEMA FLOOD INSURANCE RATE MAPS.
6. OWNERSHIP INFORMATION SHOWN ON SCHEMATICS OBTAINED FROM ELLIS COUNTY APPRAISAL DISTRICT (NOVEMBER, 2015).
7. CONVENTIONAL ROADWAY SIGNAGE (SMALL SIGNS) ARE NOT SHOWN AND WILL BE DEVELOPED DURING THE FINAL DESIGN PHASE OF THE PROJECT.
8. CURBS ARE TYPE II UNLESS OTHERWISE NOTED.
9. IF SIDEWALK IS ADJACENT TO HISTORICAL BUILDING THEN SAWCUT 6" FROM BUILDING.
10. INTERSECTION RADII ARE 20' UNLESS OTHERWISE NOTED. BUSINESS DRIVEWAY RADII ARE 15' UNLESS OTHERWISE NOTED.

PROPERTY OWNERS

PARCEL #	OWNER NAME	LOCATION ADDRESS
1	STROOPE, THOMAS G & ROBERT M STROOPE	218 S HIGHWAY 77 WAXAHACHIE, TX 75165
2	STROOPE, THOMAS G & ROBERT M STROOPE	214 S HIGHWAY 77 WAXAHACHIE, TX 75165
3	SIDES, BILLY D & JEANIE	221 S HIGHWAY 77 WAXAHACHIE, TX 75165
4	UNDERWOOD, REGINAL V	211 S HIGHWAY 77 WAXAHACHIE, TX 75165
5	JEFFERSON, BETTY	206 S HIGHWAY 77 WAXAHACHIE, TX 75165
6	STERLING TRUST COMPANY CUSTODIAN	209 S HIGHWAY 77 WAXAHACHIE, TX 75165
7	O DANIEL BILLY C	605 S COLLEGE ST WAXAHACHIE, TX 75165
8	SALVADOR FAMILY HOLDINGS LTD	200 S HIGHWAY 77 WAXAHACHIE, TX 75165
9	ALMANY, JAMES D & SHIRLEY	150 S HIGHWAY 77 WAXAHACHIE, TX 75165
10	PEARMAN OIL AND GAS	101 S HIGHWAY 77 WAXAHACHIE, TX 75165
11	PEARMAN OIL AND GAS	100 S HIGHWAY 77 WAXAHACHIE, TX 75165
12	HODGE, JACK & LAURA	608 S ROGERS ST WAXAHACHIE, TX 75165
13	CHAMBERS, HUBERT & HUGH LANE	602 S ROGERS ST WAXAHACHIE, TX 75165
14	PRUITT, BILLY KIRK	600 S ROGERS ST WAXAHACHIE, TX 75165
15	PRUITT, BILLY KIRK	CANTRELL ST WAXAHACHIE, TX 75165
16	PRUITT, BILLY KIRK	600 S ROGERS ST WAXAHACHIE, TX 75165
17	PRUITT, BILLY KIRK	507 DUNAWAY ST WAXAHACHIE, TX 75165
18	CUEVAS, JESSICA	401 CANTRELL ST WAXAHACHIE, TX 75165
19	JORDAN, SUSAN L W & JOHN D	528 S ROGERS ST WAXAHACHIE, TX 75165
20	BREKENGLENN LTD	CANTRELL ST WAXAHACHIE, TX 75165
21	BREKENGLENN LTD	402 CANTRELL ST WAXAHACHIE, TX 75165
22	JUSTICE, JAMES J	400 CANTRELL ST WAXAHACHIE, TX 75165
23	JUSTICE, JAMES J	504 CANTRELL ST, WAXAHACHIE, TX 75165
24	JUSTICE, JAMES J	406 CANTRELL ST WAXAHACHIE, TX 75165
25	JUSTICE, JAMES J	CANTRELL ST WAXAHACHIE, TX 75165
26	JUSTICE, JAMES J	CANTRELL ST WAXAHACHIE, TX 75165
27	SECURE MORE STORAGE CORP	602 CANTRELL ST WAXAHACHIE, TX 75165
28	CITY OF WAXAHACHIE	MKT RR @ WAXA CRK WAXAHACHIE, TX 75165
29	BURLINGTON NORTHERN RAILROAD	MKT RR @ WAXA CRK WAXAHACHIE, TX 75165
30	CITY OF WAXAHACHIE	S ROGERS ST WAXAHACHIE, TX 75165
31	CITY OF WAXAHACHIE	406 S ROGERS ST WAXAHACHIE, TX 75165
32	CITY OF WAXAHACHIE	401 S ELM ST WAXAHACHIE, TX 75165
33	THE GARY MARTIN COMPANY INC	305 W MADISON ST WAXAHACHIE, TX 75165
34	DUCKETT, RONALD B	305 PATTERSON ST WAXAHACHIE, TX 75165
35	CAMP, CINDY	405 W MADISON ST WAXAHACHIE, TX 75165
36	MORTON, GRONER T	401 W MADISON ST WAXAHACHIE, TX 75165
37	CITY OF WAXAHACHIE	407 W JEFFERSON ST WAXAHACHIE, TX 75165
38	FRISBEE FAMILY TRUST	308 W MADISON ST WAXAHACHIE, TX 75165
39	LAFE PROPERTIES INC	306 S ELM ST WAXAHACHIE, TX 75165
40	TURBO PROPERTIES LLC	307 S ELM WAXAHACHIE, TX 75165
41	BROWN MOTOR CO	304 S ELM ST WAXAHACHIE, TX 75165
42	BEG PARTNERS LLC	209 W JEFFERSON ST WAXAHACHIE, TX 75165
43	BEG PARTNERS LLC	S ELM ST WAXAHACHIE, TX 75165
44	FRISBEE FAMILY TRUST	311 W JEFFERSON ST WAXAHACHIE, TX 75165
45	SETTLEMYER, TAMMY	400 W JEFFERSON ST WAXAHACHIE, TX 75165
46	ALHAJ, MAJDA	312 W JEFFERSON ST WAXAHACHIE, TX 75165
47	RRSA PROPERTIES LLC	310 W JEFFERSON ST WAXAHACHIE, TX 75165
48	AUTREY & HOWARD REAL ESTATE HOLDINGS LLC	204 S ELM ST WAXAHACHIE, TX 75165
49	CHAVARRIA, MIREYA	212 W JEFFERSON ST WAXAHACHIE, TX 75165
50	AUTREY & HOWARD REAL ESTATE HOLDINGS LLC	215 W FRANKLIN ST WAXAHACHIE, TX 75165
51	AUTREY DUSTY & GARY	200 S ELM ST WAXAHACHIE, TX 75165
52	HUNT, H KEITH	S MONROE ST WAXAHACHIE, TX 75165
53	HUNT, H KEITH	401 W FRANKLIN ST WAXAHACHIE, TX 75165
54	GETZENDANER & READ	108 S MONROE ST WAXAHACHIE, TX 75165
55	MAIN & MONROE PARTNERS LP	107 S MONROE ST WAXAHACHIE, TX 75165
56	COLWELL, WILLIAM B & MILDRED	100 S ELM ST WAXAHACHIE, TX 75165
57	SBH DESIGN CONSULTANTS LLC	216 W FRANKLIN ST WAXAHACHIE, TX 75165
58	VINEYARD, RANDY	209 W MAIN ST WAXAHACHIE, TX 75165
59	POARCH PROPERTIES LLC SERIES E	401 W MAIN ST WAXAHACHIE, TX 75165
60	PAACO AUTOMOTIVE GROUP LP	400 W MAIN ST WAXAHACHIE, TX 75165
61	PAACO AUTOMOTIVE GROUP LP	401 WATER ST WAXAHACHIE, TX 75165
62	THORNHILL, JOHN	314 W MAIN ST WAXAHACHIE, TX 75165
63	GETZENDANER WILLIAM H JR DESCENDANTS TRUST	302 W MAIN ST WAXAHACHIE, TX 75165
64	CITIZEN NATIONAL BANK	104 N ELM ST WAXAHACHIE, TX 75165
65	CITIZENS NATIONAL BANK	200 N ELM ST WAXAHACHIE, TX 75165
66	CITIZENS NATIONAL BANK	200 N ELM ST WAXAHACHIE, TX 75165
67	GETZENDANER WILLIAM H JR DESCENDANTS TRUST	300 WATER ST WAXAHACHIE, TX 75165
68	WAXAHACHIE STONES FAMILY LTD	200 N MONROE ST WAXAHACHIE, TX 75165
69	RENDON, ELEOMAR	400 WATER ST WAXAHACHIE, TX 75165
70	RENDON, ELEOMAR	N MONROE ST WAXAHACHIE, TX 75165
71	ELLIS COUNTY AUTO WASH LLC	205 N MONROE ST WAXAHACHIE, TX 75165
72	BATES FAMILY REAL ESTATE	208 N MONROE ST WAXAHACHIE, TX 75165
73	BATES FAMILY REAL ESTATE	210 N MONROE ST WAXAHACHIE, TX 75165
74	SULLIVAN PROPERTIES PTNSHP	200 MONROE ST WAXAHACHIE, TX 75165
75	BURLINGTON NORTHERN RAILROAD	N/A
76	GETZENDANER WILLIAM H JR DESCENDANTS TRUST	301 N ELM ST WAXAHACHIE, TX 75165
77	FIRST BAPTIST CHURCH OF WAXAHACHIE	301 N ROGERS ST WAXAHACHIE, TX 75165
78	FIRST BAPTIST CHURCH	315 N ROGERS ST WAXAHACHIE, TX 75165
79	INTERNATIONAL COUNCIL FOR	308 N MONROE ST WAXAHACHIE, TX 75165
80	L & M MUFFLER SHOP	300 N ELM ST WAXAHACHIE, TX 75165
81	L & M MUFFLER SHOP	319 N MONROE ST WAXAHACHIE, TX 75165
82	MC CLUSKEY PHLOYD B & SALLY S	301 MC MILLAN ST WAXAHACHIE, TX 75165
83	LEAMON, DANIEL	317 N ELM ST WAXAHACHIE, TX 75165
84	FERGUSON, LUCY	324 ELM ST WAXAHACHIE, TX 75165
85	W & H INTERESTS	307 FERRIS AVE WAXAHACHIE, TX 75165
86	SULLIVAN PROPERTIES PTNSHP	311 FERRIS AVE WAXAHACHIE, TX 75165
87	ELLIS APPRAISAL DISTRICT	400 FERRIS AVE WAXAHACHIE, TX 75165
88	MC NEVINS ELAINE	401 N MONROE ST WAXAHACHIE, TX 75165
89	PROSPERITY BANK	403 FERRIS AVE WAXAHACHIE, TX 75165

TEXAS DEPARTMENT OF TRANSPORTATION
DALLAS DISTRICT
DESIGN SCHEMATIC
JAMES K. SELMAN, P.E.
DISTRICT ENGINEER
ELLIS COUNTY
US 77
CSJ: 0048-03-050 & 055
FROM: SOUTH OF FM 66
TO: NORTH OF McMILLAN ST.
NET LENGTH OF PROJECT: 0.791 MILES
FUNCTIONAL CLASSIFICATION:
URBAN PRINCIPAL ARTERIAL
US 77: 10,300 ADT (2015) 14,000 ADT (2035)
MONROE: 10,300 ADT (2015) 14,200 ADT (2035)
DESIGN SPEED
PRINCIPAL ARTERIAL (US 77) = 30 MPH
CROSS STREETS = 25 MPH
COUNTY: ELLIS
DATE: AUG 2016
DESIGN SCHEMATIC FOR US 77
ROLL 1 OF 1
PRELIMINARY



LOCATION MAP
N.T.S
SCALE: H - 1"=50', V - 1"=10'
PRINTED: $DATE$
SCHEMATIC PREPARED BY:
BROWN & GAY ENGINEERS, INC.
REGISTRATION NUMBER F-1046
FOR INTERIM REVIEW ONLY. NOT FOR PERMITTING, BIDDING OR CONSTRUCTION.
Prepared by or under the Direct Supervision of:
MICHAEL G. ZIEMINSKI 103845
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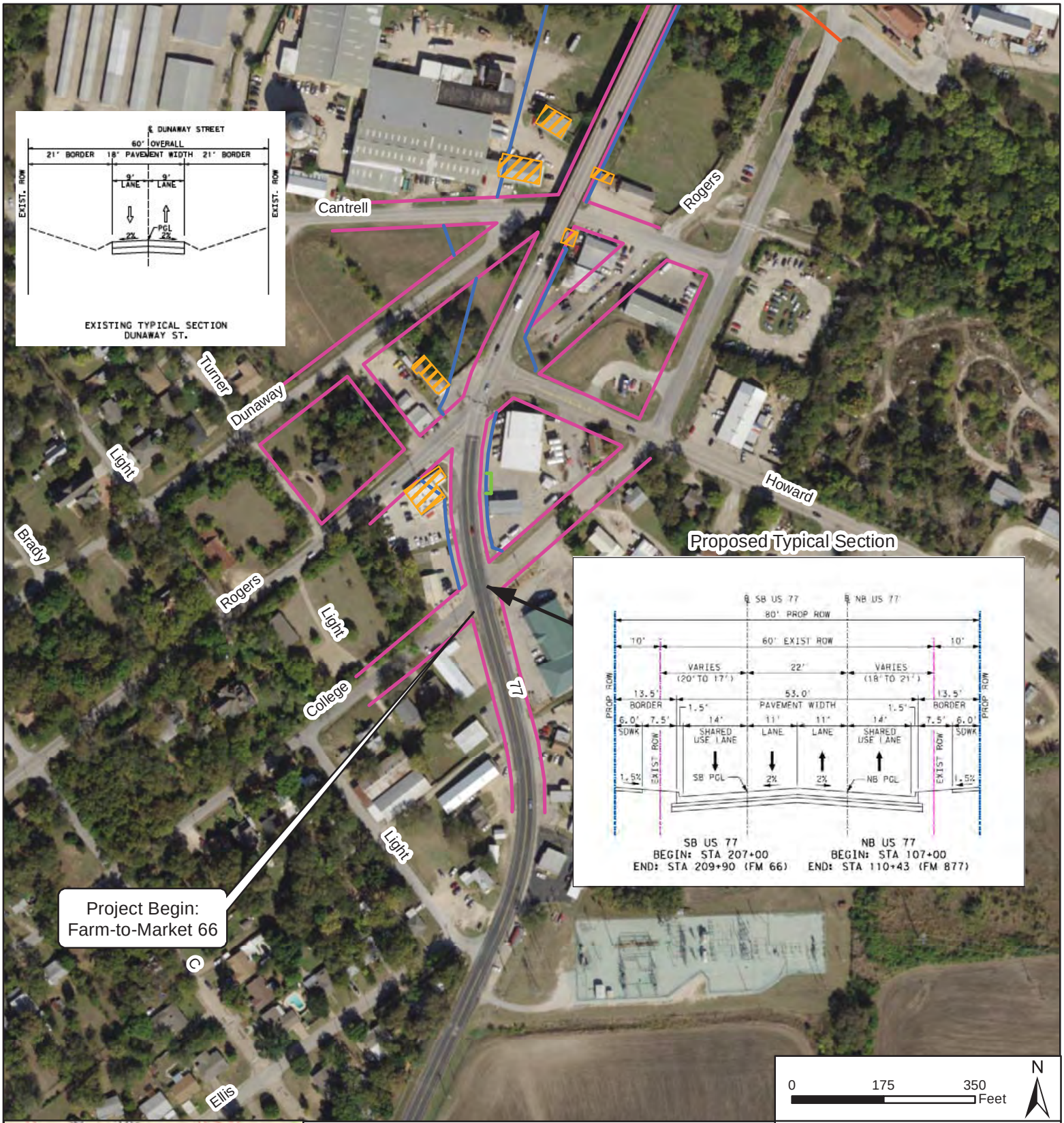
Appendix D – Typical Sections



Legend

- Proposed ROW
- Existing ROW
- Driveway Easement
- Railroad ROW
- Displacement

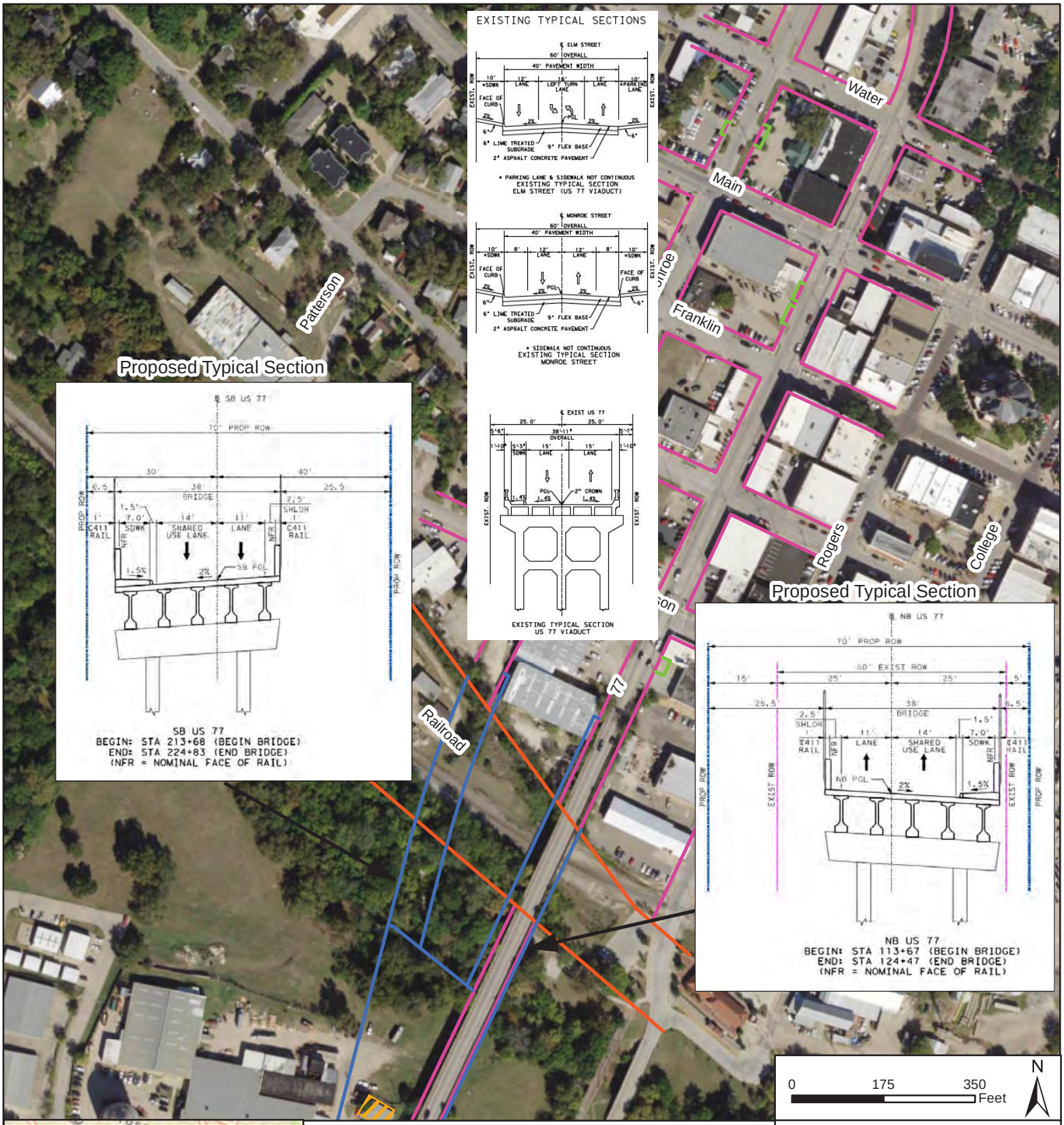
US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Appendix D: Proposed Schematic and Typical Sections

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055



Legend

- Proposed ROW
- Existing ROW
- Driveway Easement
- Railroad ROW
- Displacement

US 77 Improvements Project

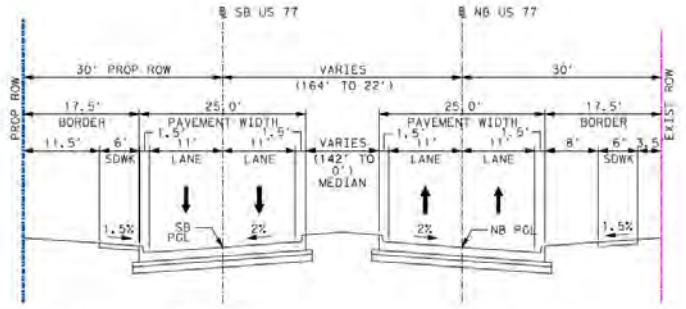
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Appendix D: Proposed Schematic and Typical Sections

Texas Department of Transportation

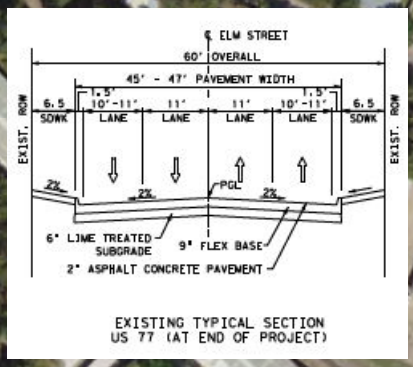
TXDOT CSJs:
0048-03-050 &
0048-03-055

Gibson
Hawkins
Royal
Grace
Parks
Project End:
North of Mcmillan Street
Proposed Typical Section
Mcmillan
77
Ferris
Monroe
Rogers
Water
College



SB US 77
BEGIN: STA 241+21 (UPRR)
END: STA 243+35

NB US 77
BEGIN: STA 141+18 (UPRR)
END: STA 144+57



EXISTING TYPICAL SECTION
US 77 (AT END OF PROJECT)

Legend

- Proposed ROW
- Existing ROW
- Driveway Easement
- Railroad ROW
- Displacement

0 175 350 Feet

N

US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Appendix D: Proposed Schematic and Typical Sections

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Appendix E – Plan and Program Excerpts

Administrative Revisions

Regionally Significant Arterial Recommendations Summary

Revised November 2, 2016

County	MTP ID	Facility	From Street	To Street	2017 Lanes	2027 Lanes	2037 Lanes	2040 Lanes	YOE Cost*
Denton	RSA1- 1.430.225	Vintage Parkway	IH 35W	US 377	2	4	4	4	$ 11.34
Ellis	RSA1- 2.787.250	BU 287 BU 45	Paris Street	IH 45~~US 75 SP 563~~	2	4	4	4	$ 7.61
Ellis	RSA1- 2.710.250	FM 664	Westmoreland Road	IH 35E	2	6	6	6	$ ~~17.03~~ 45.10
Ellis	RSA1- 2.710.225	FM 664 Ovilla Road	Ovilla Main Street	FM 664	2	4	4	4	$ 7.32
Ellis	RSA1- 1.840.650	SH 34	FM 2451	Sunridge Drive	2	2	4	4	$ 18.45
Ellis	RSA1- 1.840.655	SH 34	Sunridge Drive	Sonoma Trail	2	2	4	4	$ 4.88
Ellis	RSA1- 1.840.660	SH 34	Sonoma Trail	IH 45	2	2	4	4	$ 2.66
Ellis	RSA1- 1.840.700	SH 34	FM 1181	Kaufman Street	2	4	4	4	$ 1.22
Ellis	RSA1- 1.840.725	SH 34	FM 1183	SP 437 Clay ~~ST~~Street	2	2	4	4	$ 4.81
Ellis	RSA1- 1.840.750	SH 34 Lake Bardwell Drive	SP 437 Clay Street	IH 35E	2	2	4	4	$ 141.09
Ellis	RSA1- 1.595.390	SH 342	~~LP~~Loop 9	FM 664	0	2	2	2	$ 12.35
Ellis	RSA1- 1.220.875	US 287	SH 34	IH 45	2	N/A	N/A	N/A	$ ——75.49
Ellis	RSA1- 1.580.325	US 77	FM 66	FM 877	2	4	4	4	$ 0.50
Ellis	RSA1- 1.580.300	US 77 Elm Street	Ferris Avenue	FM 66	2	4	4	4	$ 4.88
Ellis	RSA1- 1.580.310	US 77 Elm Street	Ferris Avenue	Rogers Street	2	2/2	2/2	2/2	$ ~~4.52~~ 20.6
Hood	RSA1- 1.540.457	BU 377	US 377	0.22 Miles North of US 377	0	1	1	1	$ 0.79
Hood	RSA1- 2.745.250	FM 4 FM 167 Fall Creek ~~HWY~~	North Gate Road	FM 167	2	2	4	4	$ 4.52
Hood	RSA1- 1.205.275	SH 144	1.4 Miles West of CR 3330	0.5 ~~MI~~Miles East of Cemetary Road	2	2	4	4	$ 24.48
Hood	RSA1- 1.200.275	SH 171	US 377 Bypass	BU 377	2	2/2	2/2	2/2	$ 4.09
Hood	RSA1- 1.540.452	US 377	BU 377	US 377	0	~~0~~1	1	1	$ 0.79
Hood	RSA1- 1.540.455	US 377	BU 377	0.36 Miles North of BU 377	2/2	4	4	4	$ ~~2.58~~5.17
Hood	RSA1- 1.540.470	US 377	FM 167 Fall Creek Hwy	FM 167 Temple Hall Hwy	2/2	3/3	3/3	3/3	$ ~~2.23~~4.45
Hood	RSA1- 1.540.480	US 377	FM 167 Temple Hall Hwy	Western Hills Trail	4	6	6	6	$ 24.70
Hood	RSA1- 1.540.490	US 377	Western Hills Trail	Harbor Lakes Drive	2/2	3/3	3/3	3/3	$ ~~1.65~~3.30
Hood	RSA1- 1.540.500	US 377	Harbor Lakes Drive	Old Cleburne Road	4	6	6	6	$ 8.19
Hood	RSA1- 1.540.510	US 377	Old Cleburne Road	0.2 Miles East of SH 144	2/2	3/3	3/3	3/3	$ ~~1.47~~2.94
Hood	RSA1- 1.540.520	US 377	0.2 Miles East of SH 144	0.2 Miles West of SH 144	2/2	3/3	3/3	3/3	$ 0.~~39~~79
Hood	RSA1- 1.540.530	US 377	0.2 Miles West of SH 144	FM 51	2/2	3/3	3/3	3/3	$ 10.53
Hood	RSA1- 1.540.540	US 377	FM 51	BU 377	2/2	2/2	2/2	2/2	$ 43.11

2017-2020 STIP			07/2016 Revision: Pending Approval				
DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
DALLAS	DALLAS-FORT WORTH	ELLIS	0048-03-055	US 77	E,ENG,R,ACQ	WAXAHACHIE	$ 3,150,000

LIMITS FROM: SOUTH OF FM 66
LIMITS TO: NORTH OF MCMILLAN STREET
PROJECT DESCR: RECONSTRUCT AND CONVERT 2 LANE UNDIVIDED TO 4 LANE DIVIDED ONE-WAY COUPLET
REMARKS P7:
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2016
MPO PROJ NUM: 51220
FUNDING CAT(S):
PROJECT HISTORY:

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 700,000
ROW PURCH	$ 2,450,000
CONSTR	$ 13,137,250
CONST ENG	$ 260,191
CONTING	$ 375,831
INDIRECT	$ 282,740
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 17,206,012

COST OF APPROVED PHASES: $ 3,150,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 700,000	$ 0	$ 0	$ 0	$ 700,000
S102	$ 1,960,000	$ 490,000	$ 0	$ 0	$ 0	$ 2,450,000
TOTAL	$ 1,960,000	$ 1,190,000	$ 0	$ 0	$ 0	$ 3,150,000

2017-2020 STIP			07/2016 Revision: Pending Approval				
DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
DALLAS	DALLAS-FORT WORTH	DALLAS	0000-18-074	VA	E,ENG	DALLAS	$ 155,500,000

LIMITS FROM: D2 LINE FROM VICTORY STATION
LIMITS TO: DALLAS CBD
PROJECT DESCR: ADDITION OF 2ND LIGHT RAIL CORRIDOR IN DOWNTOWN DALLAS; PHASE 1
REMARKS P7: LOCAL CONTRIBUTION TO BE PROVIDED BY DART
PROJECT SPONSOR: DART
REVISION DATE: 07/2016
MPO PROJ NUM: 83293
FUNDING CAT(S):
PROJECT HISTORY: SUBJECT TO ADDITIONAL FTA FUNDING

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 155,500,000
ROW PURCH	$ 0
CONSTR	$ 551,300,000
CONST ENG	$ 0
CONTING	$ 0
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 706,800,000

COST OF APPROVED PHASES: $ 155,500,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
3LC	$ 0	$ 0	$ 0	$ 0	$ 155,500,000	$ 155,500,000
TOTAL	$ 0	$ 0	$ 0	$ 0	$ 155,500,000	$ 155,500,000

2017-2020 STIP			07/2016 Revision: Pending Approval				
DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
DALLAS	DALLAS-FORT WORTH	DALLAS	2374-02-144	IH 635	E,ENG,R,ACQ	VARIOUS	$ 3,250,000

LIMITS FROM: KCS RR
LIMITS TO: IH 30
PROJECT DESCR: CONSTRUCT NOISE WALLS AT VARIOUS LOCATIONS
REMARKS P7:
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2016
MPO PROJ NUM: 55110
FUNDING CAT(S):
PROJECT HISTORY:

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 750,000
ROW PURCH	$ 2,500,000
CONSTR	$ 9,300,000
CONST ENG	$ 0
CONTING	$ 0
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 12,550,000

COST OF APPROVED PHASES: $ 3,250,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
SBPE	$ 0	$ 750,000	$ 0	$ 0	$ 0	$ 750,000
S102	$ 2,250,000	$ 250,000	$ 0	$ 0	$ 0	$ 2,500,000
TOTAL	$ 2,250,000	$ 1,000,000	$ 0	$ 0	$ 0	$ 3,250,000

2017-2020 STIP — **07/2016 Revision: Pending Approval**

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
DALLAS	DALLAS-FORT WORTH	ELLIS	0048-03-055	US 77	C	WAXAHACHIE	$ 13,137,250

LIMITS FROM: SOUTH OF FM 66
LIMITS TO: NORTH OF MCMILLAN STREET
PROJECT DESCR: RECONSTRUCT AND CONVERT 2 LANE UNDIVIDED TO 4 LANE DIVIDED ONE-WAY COUPLET
REMARKS: CAT 1 FUNDS ARE PROP 1 FUNDS
P7:
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2016
MPO PROJ NUM: 51220
FUNDING CAT(S):
PROJECT HISTORY:

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 700,000
ROW PURCH	$ 2,450,000
CONSTR	$ 13,137,250
CONST ENG	$ 260,191
CONTING	$ 375,831
INDIRECT	$ 282,740
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 17,206,012

COST OF APPROVED PHASES: $ 13,137,250

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
1	$ 0	$ 3,137,250	$ 0	$ 0	$ 0	$ 3,137,250
6	$ 8,000,000	$ 2,000,000	$ 0	$ 0	$ 0	$ 10,000,000
TOTAL	$ 8,000,000	$ 5,137,250	$ 0	$ 0	$ 0	$ 13,137,250

2017-2020 STIP — **07/2016 Revision: Pending Approval**

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
DALLAS	DALLAS-FORT WORTH	DALLAS	0047-07-228	US 75	R,ACQ	DALLAS	$ 750,000

LIMITS FROM: AT NORTHAVEN ROAD
LIMITS TO:
PROJECT DESCR: CONSTRUCT BIKE/PEDESTRIAN BRIDGE OVER US 75 (ON SYSTEM SECTION)
REMARKS:
P7:
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2016
MPO PROJ NUM: 55108.1
FUNDING CAT(S):
PROJECT HISTORY:

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 50,000
ROW PURCH	$ 750,000
CONSTR	$ 6,562,500
CONST ENG	$ 0
CONTING	$ 0
INDIRECT	$ 0
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 7,362,500

COST OF APPROVED PHASES: $ 750,000

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
S102	$ 675,000	$ 75,000	$ 0	$ 0	$ 0	$ 750,000
TOTAL	$ 675,000	$ 75,000	$ 0	$ 0	$ 0	$ 750,000

2017-2020 STIP — **07/2016 Revision: Pending Approval**

DISTRICT	MPO	COUNTY	CSJ	HWY	PHASE	CITY	YOE COST
DALLAS	DALLAS-FORT WORTH	DENTON	0081-03-048	US 377	C	ROANOKE	$ 14,963,006

LIMITS FROM: HENRIETTA CREEK ROAD
LIMITS TO: SH 114 (SECTION 5)
PROJECT DESCR: RECONSTRUCT AND WIDEN 2/4 TO 4 LANE DIVIDED URBAN
REMARKS: CAT 4 FUNDS ARE PROP 1 FUNDS
P7:
PROJECT SPONSOR: TXDOT-DALLAS
REVISION DATE: 07/2016
MPO PROJ NUM: 20120
FUNDING CAT(S):
PROJECT HISTORY:

TOTAL PROJECT COST INFORMATION

PREL ENG	$ 2,500,000
ROW PURCH	$ 500,000
CONSTR	$ 14,963,006
CONST ENG	$ 712,160
CONTING	$ 285,726
INDIRECT	$ 693,495
BOND FIN	$ 0
PT CHG ORD	$ 0
TOTAL CST	$ 19,654,387

COST OF APPROVED PHASES: $ 14,963,006

AUTHORIZED FUNDING BY CATEGORY/SHARE

CATEGORY	FEDERAL	STATE	REGIONAL	LOCAL	LC	TOTAL
1	$ 691,075	$ 172,769	$ 0	$ 0	$ 0	$ 863,844
4	$ 0	$ 14,099,162	$ 0	$ 0	$ 0	$ 14,099,162
TOTAL	$ 691,075	$ 14,271,931	$ 0	$ 0	$ 0	$ 14,963,006

```
DCS2B010-NO CHANGES MADE; PLEASE CONTINUE.

                    STIP UPDATE SCREEN - DISTRICT TIP INFORMATION          DCIS.315

 CTL-SEC-JOB  0048-03-050  HIGHWAY NO  US 77    DISTRICT  18 DALLAS
 LOCATION FROM: OVERPASS OF FM 1446                          CNTY 071 ELLIS
          TO  : IN WAXAHACHIE
 LAYMANS DESC : REPLACE BRIDGE AND APPROACHES

 PROJECT HIST :
               ____________________________________________________________________
               ____________________________________________________________________
               ____________________________________________________________________
MPO PROJ ID    _____________________                  GROUPED PROJ CSJ: 500000953
IMPLEMENTING AGENCY    TXDOT___________               MPO CODE      1106
PHASE        C X PE X ROW X TR _                     CITY CODE     00000
TIP YEAR      2017
REVISION DATE    05 2015   (MM YYYY)
REMARKS:  SEE GROUPED CSJ; WITH DISTRICT DISCRETIONARY CSJ 0048-03-055_____
COMMENTS: ____________________________________________________________________
        : ____________________________________________________________________
 ..continued      'PRESS ENTER TO OBTAIN STIP VIEW ONLY SCREEN'
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      ID    FIN   EVAL  EST   SUM   UTP   STIP  COST  COR   TPC   PE    MENU
```

Appendix F – Resource-specific Maps

Legend

US 77 Project Limits

US 77 Improvements Project

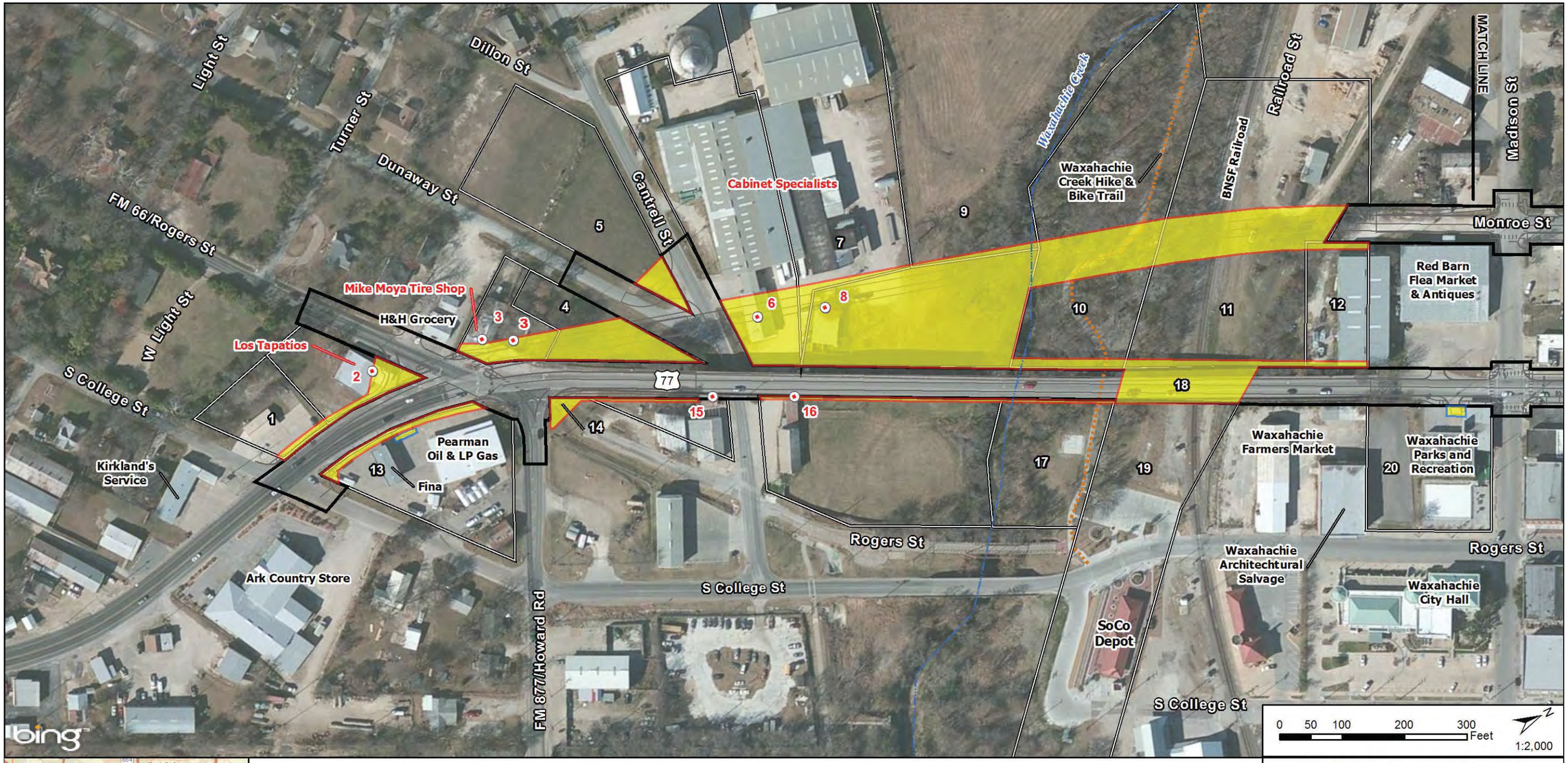
(South of Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

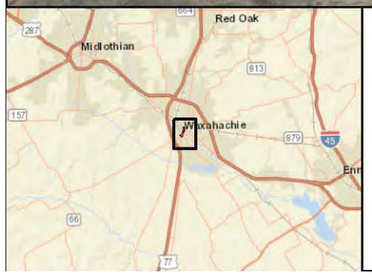
Exhibit 1:
Aerial Photograph Map

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)



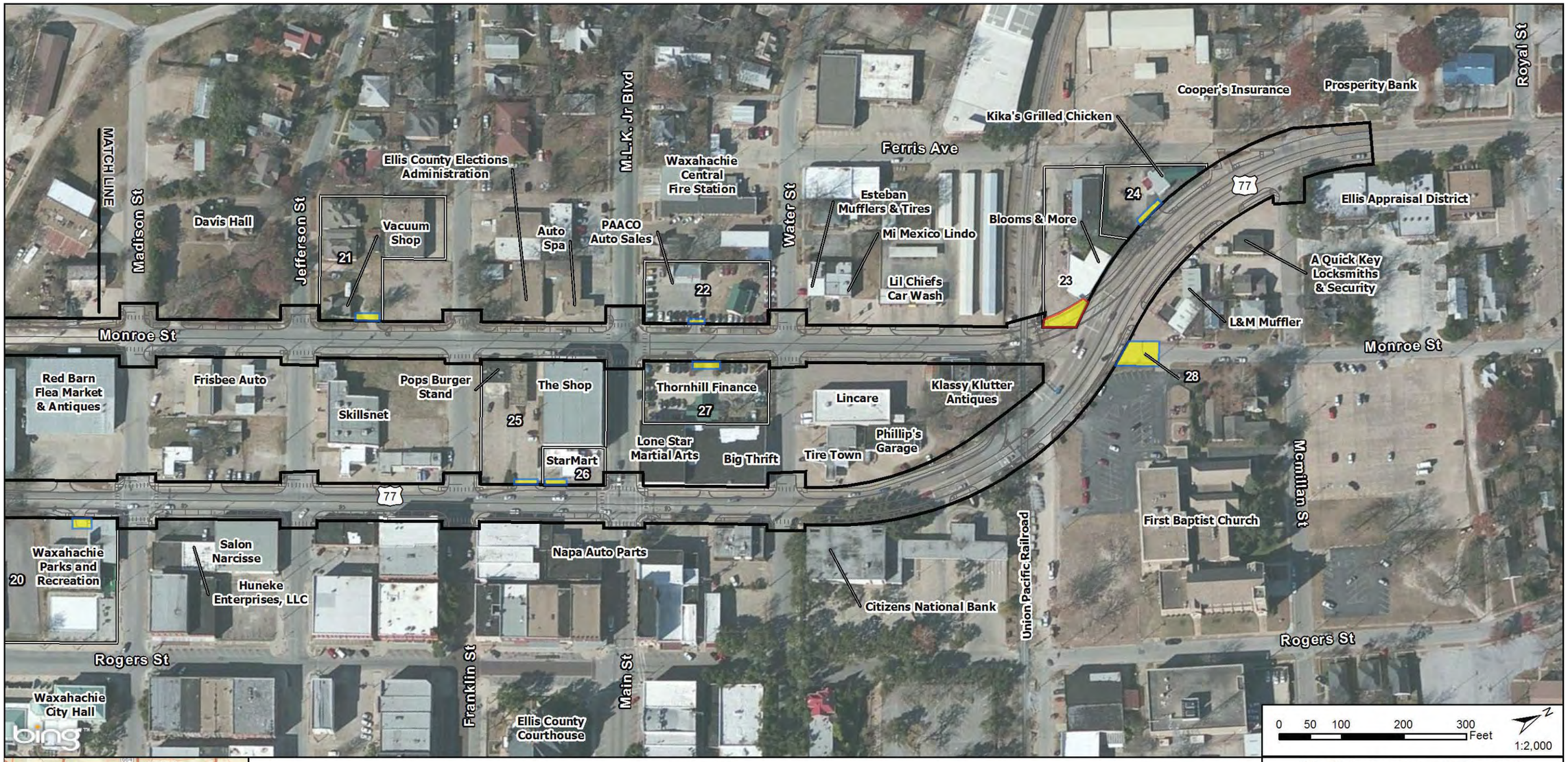


- Existing Right-of-way
- Proposed Right-of-way / Parcel Impact Area
- Proposed Driveway Easement / Parcel Impact Area
- Potential Displacement (#)
- Proposed Improvements
- Existing Hike and Bike Trail
- Parcel Boundary and Map Identification (#)

US 77 Improvements Project
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 2.1: Proposed ROW and Potential Displacements

TXDOT CSJs:
0048-03-050
& 0048-03-055



Existing Right-of-way

Proposed Right-of-way / Parcel Impact Area

Proposed Driveway Easement / Parcel Impact Area

Potential Displacement (#)

Proposed Improvements

Existing Hike and Bike Trail

Parcel Boundary and Map Identification (#)

US 77 Improvements Project
(South of Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 2.2: Proposed ROW and Potential Displacements

Texas Department of Transportation

TXDOT CSJs:
0048-03-050
& 0048-03-055

Legend

- US 77 Project Limits
- NRHP Listed Property
- Archeo Study - 2007 PBS&J for TxDOT
- Cemeteries
- Ellis County Courthouse Historic District
- North Rogers Street Historic District
- Oldham Avenue Historic District
- West End Historic District
- Wyatt Street Shotgun House Historic District

US 77 Improvements Project

(South of Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 3:
Archeological Map

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User
Source: Jacobs Project Team (2016)

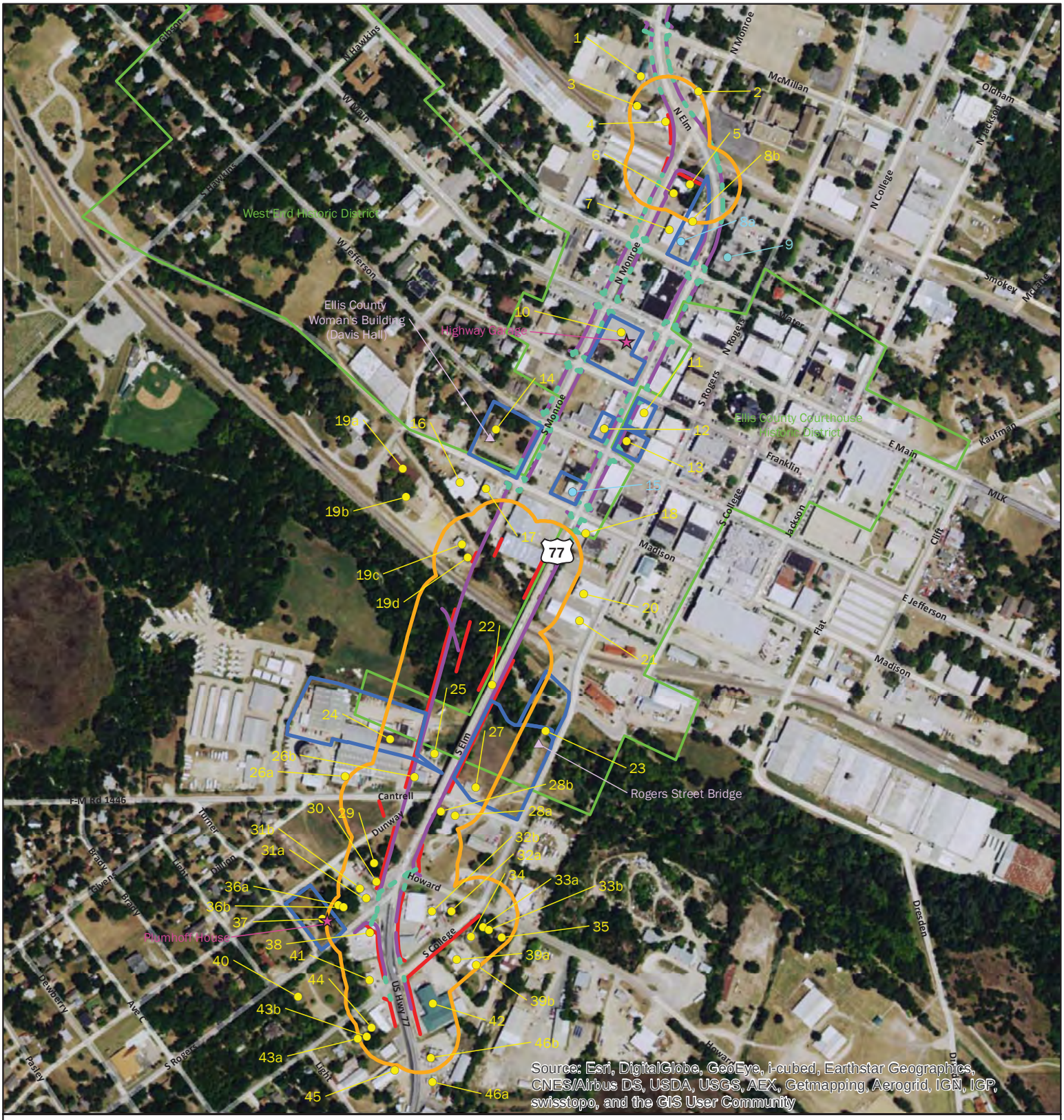


Exhibit 4a: Resource Location (Overview)

Reconnaissance-Level and
ADA Reconnaissance-Level Survey
US 77 From South of FM 66 to
North of McMillan Street
Ellis County, Dallas District
CSJ 0048-03-050 & 0048-03-055

Legend

- APE - 150 Feet from Proposed ROW
- APE - Boundary of Parcel Abutting Proposed ADA Improvements
- Surveyed NRHP-Eligible Resource
- Surveyed Historic-Age Resource
- Proposed ROW
- Proposed Ramp
- Proposed Sidewalk
- NRHP-Listed Individual Property
- NRHP-Listed Historic District
- RTHL

0 320 640 Feet

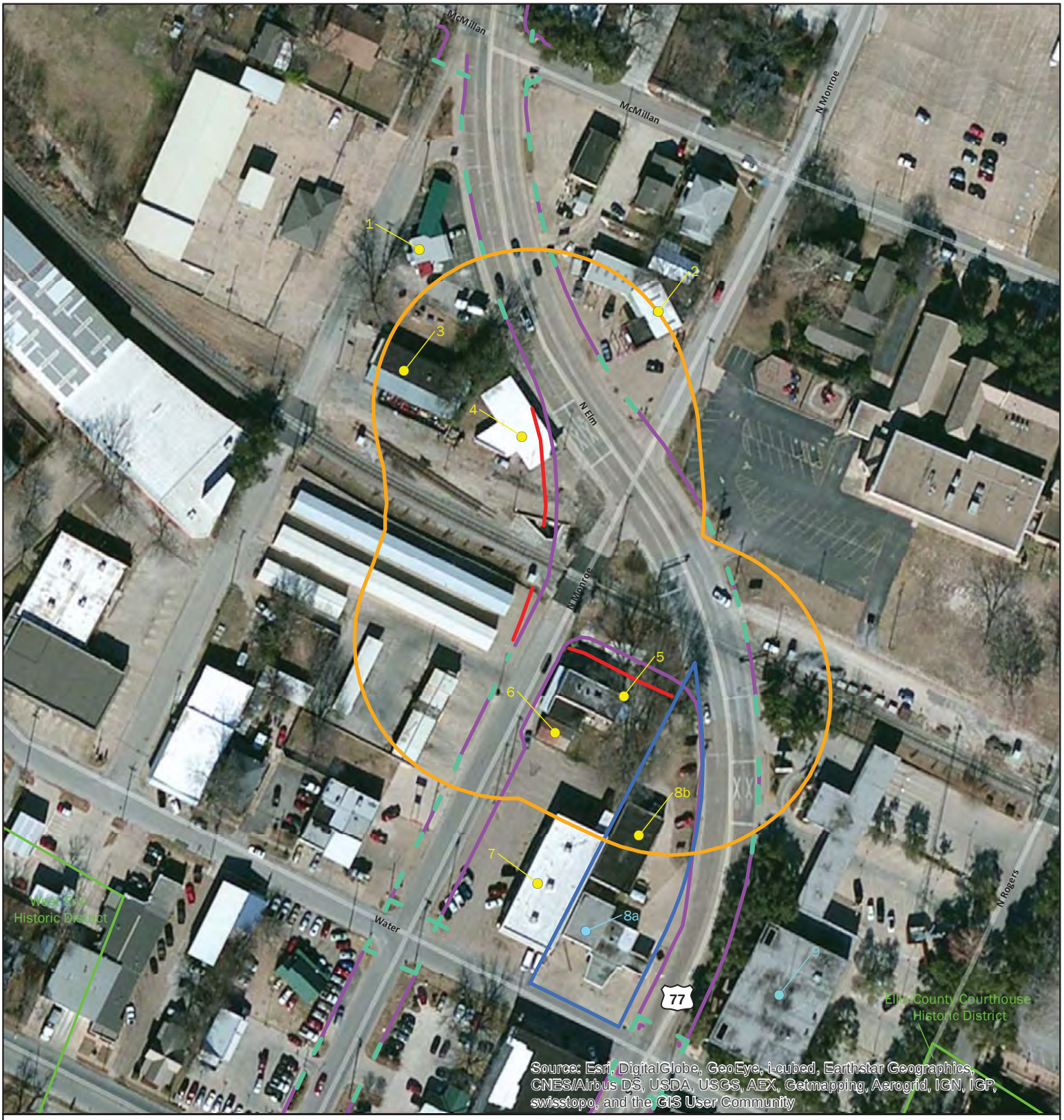


Exhibit 4b: Resource Location
Page 1 of 5

Reconnaissance-Level and
ADA Reconnaissance-Level Survey
US 77 From South of FM 66 to
North of McMillan Street
Ellis County, Dallas District
CSJ 0048-03-050 & 0048-03-055

Legend

- APE - 150 Feet from Proposed ROW
- APE - Boundary of Parcel Abutting Proposed ADA Improvements
- Surveyed NRHP-Eligible Resource
- Surveyed Historic-Age Resource
- Proposed ROW
- Proposed Ramp
- Proposed Sidewalk
- NRHP-Listed Individual Property
- NRHP-Listed Historic District

0 75 150 Feet

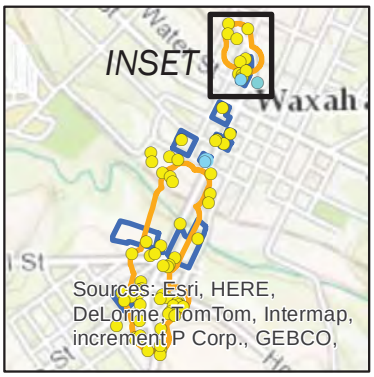


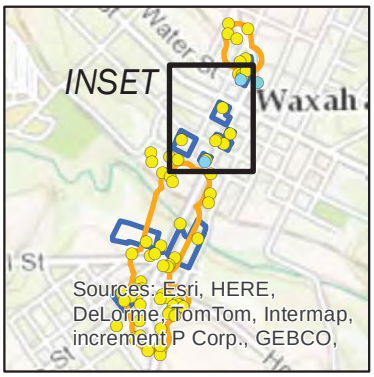
Exhibit 4b: Resource Location
Page 2 of 5

Reconnaissance-Level and
ADA Reconnaissance-Level Survey
US 77 From South of FM 66 to
North of McMillan Street
Ellis County, Dallas District
CSJ 0048-03-050 & 0048-03-055

Legend

- APE - 150 Feet from Proposed ROW
- APE - Boundary of Parcel Abutting Proposed ADA Improvements
- Surveyed NRHP-Eligible Resource
- Surveyed Historic-Age Resource
- Proposed ROW
- Proposed Ramp
- Proposed Sidewalk
- NRHP-Listed Individual Property
- NRHP-Listed Historic District
- RTHL

0 75 150
Feet



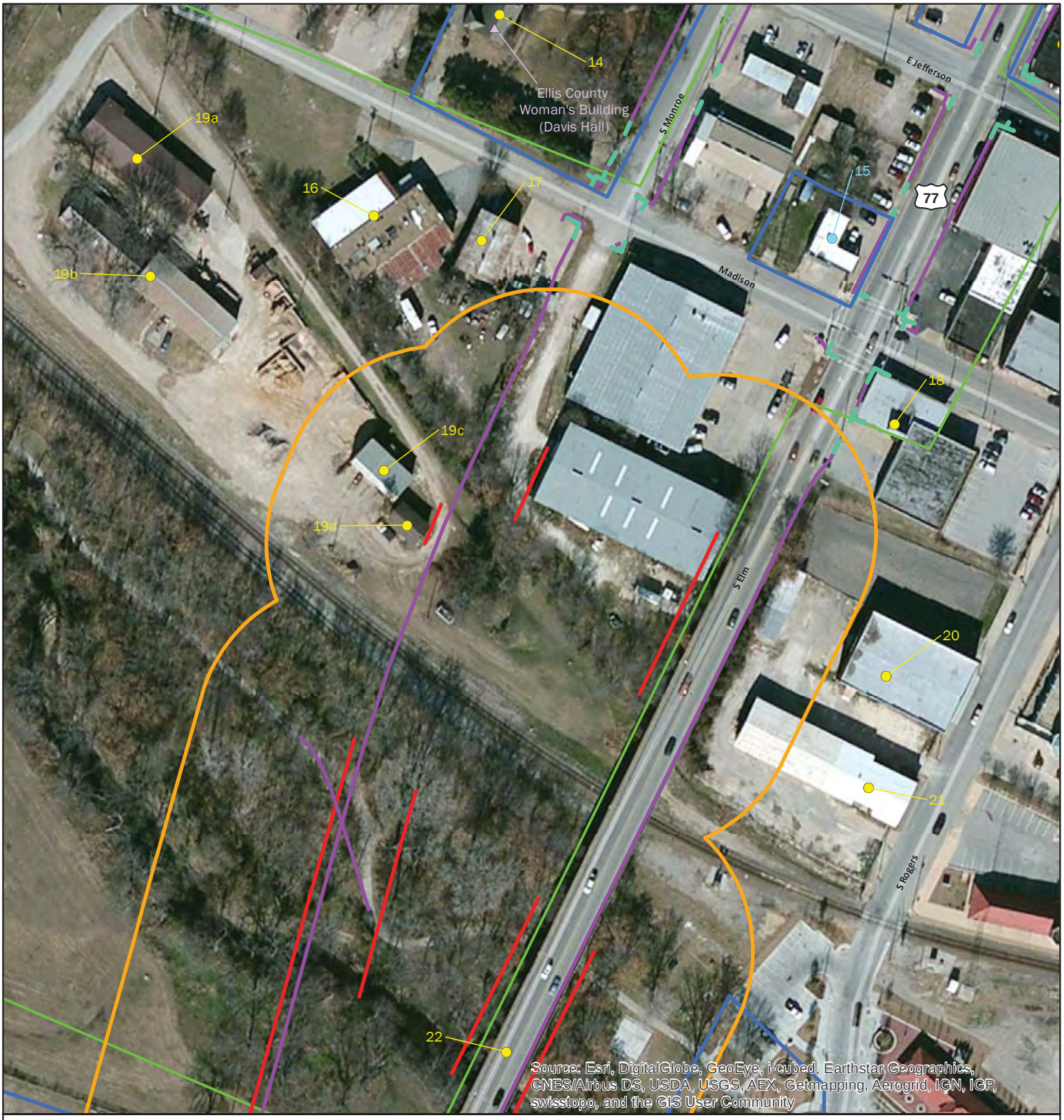


Exhibit 4b: Resource Location
Page 3 of 5

Reconnaissance-Level and
ADA Reconnaissance-Level Survey
US 77 From South of FM 66 to
North of McMillan Street
Ellis County, Dallas District
CSJ 0048-03-050 & 0048-03-055

Legend

- APE - 150 Feet from Proposed ROW
- APE - Boundary of Parcel Abutting Proposed ADA Improvements
- Surveyed NRHP-Eligible Resource
- Surveyed Historic-Age Resource
- Proposed ROW
- Proposed Ramp
- Proposed Sidewalk
- NRHP-Listed Individual Property
- NRHP-Listed Historic District
- RTHL

0 75 150
Feet

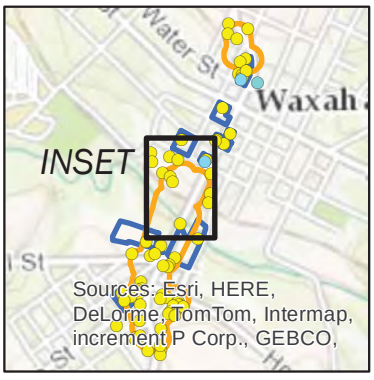


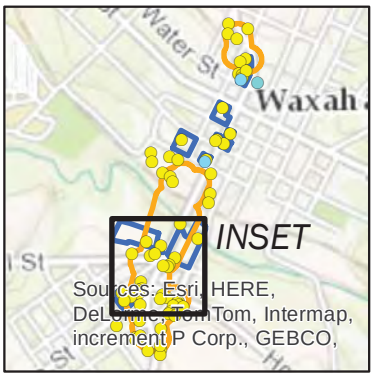
Exhibit 4b: Resource Location
Page 4 of 5

Reconnaissance-Level and
ADA Reconnaissance-Level Survey
US 77 From South of FM 66 to
North of McMillan Street
Ellis County, Dallas District
CSJ 0048-03-050 & 0048-03-055

Legend

- APE - 150 Feet from Proposed ROW
- APE - Boundary of Parcel Abutting Proposed ADA Improvements
- Surveyed NRHP-Eligible Resource
- Surveyed Historic-Age Resource
- Proposed ROW
- Proposed Ramp
- Proposed Sidewalk
- NRHP-Listed Individual Property
- NRHP-Listed Historic District
- RTHL

0 80 160 Feet



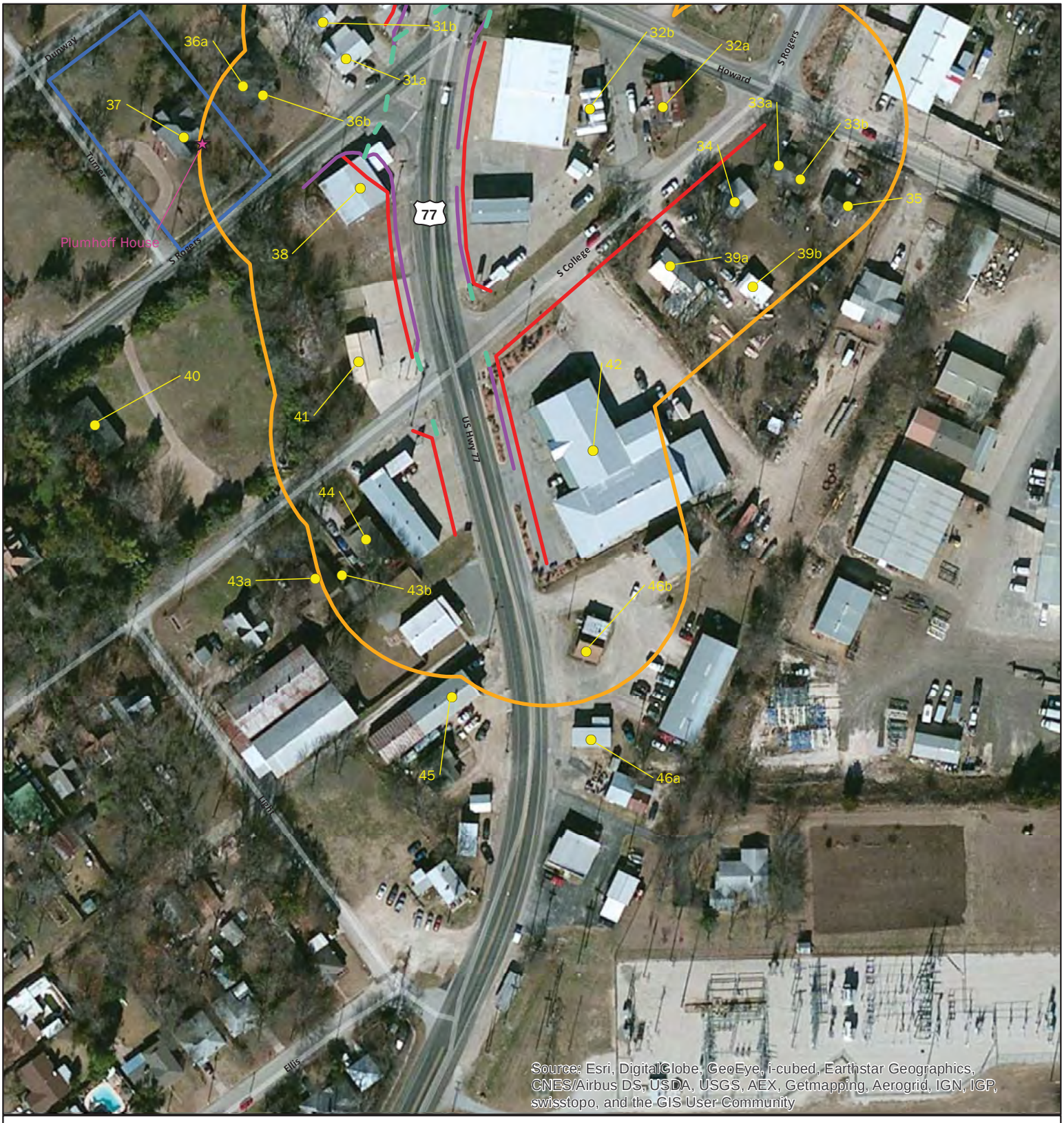


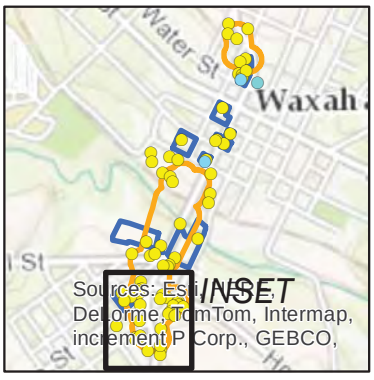
Exhibit 4b: Resource Location
Page 5 of 5

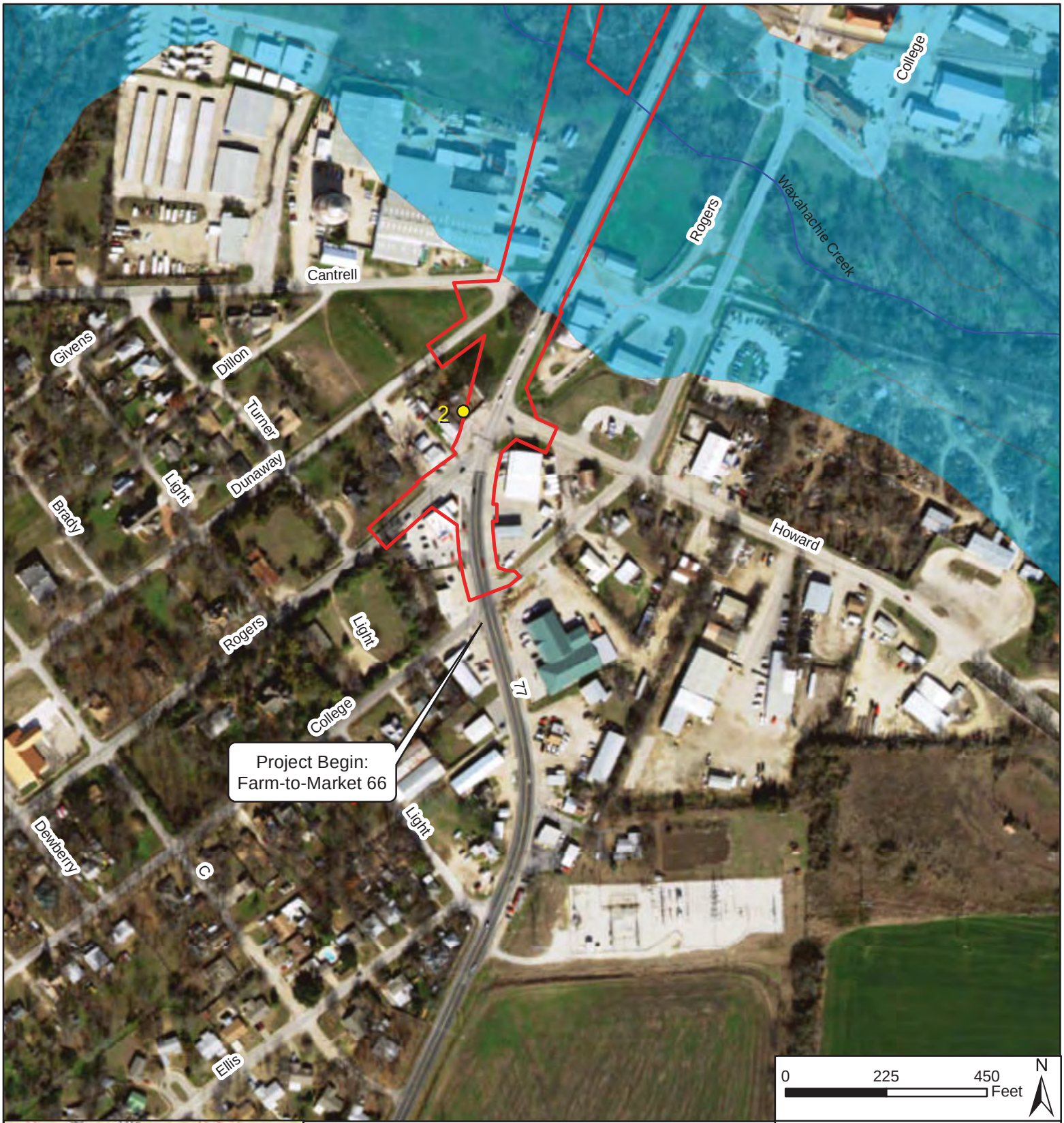
Reconnaissance-Level and
ADA Reconnaissance-Level Survey
US 77 From South of FM 66 to
North of McMillan Street
Ellis County, Dallas District
CSJ 0048-03-050 & 0048-03-055

Legend

- APE - 150 Feet from Proposed ROW
- APE - Boundary of Parcel Abutting Proposed ADA Improvements
- Surveyed NRHP-Eligible Resource
- Surveyed Historic-Age Resource
- Proposed ROW
- Proposed Ramp
- Proposed Sidewalk
- NRHP-Listed Individual Property
- NRHP-Listed Historic District

0 80 160
Feet





Legend

- US 77 Project Limits
- Water Well
- Stream
- **FEMA FLOOD ZONE**
  - 100-year

US 77 Improvements Project

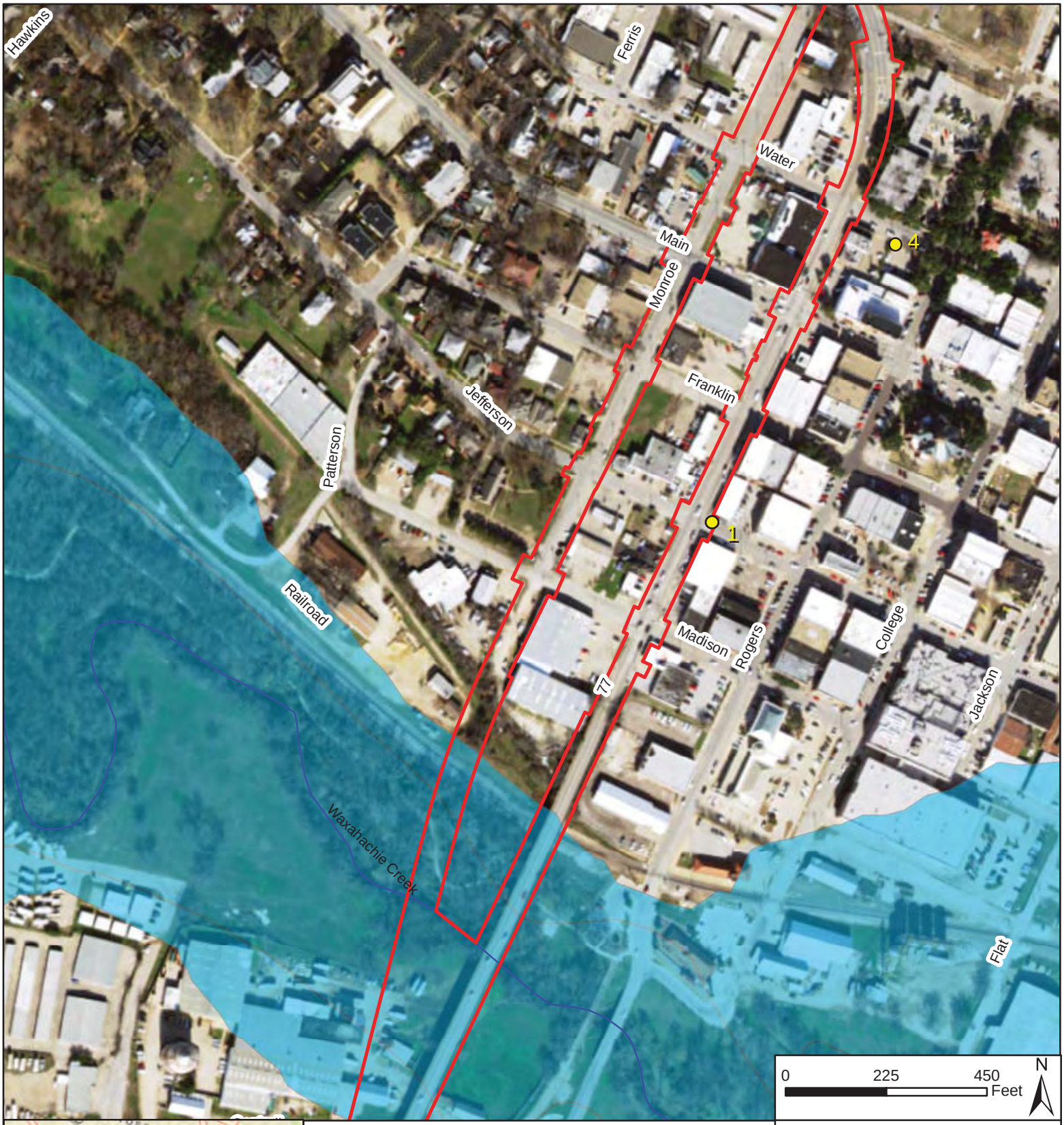
(South of Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 5: Water Resources Map

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)



Legend

- US 77 Project Limits
- Water Well
- Stream
- **FEMA FLOOD ZONE**
- 100-year

US 77 Improvements Project

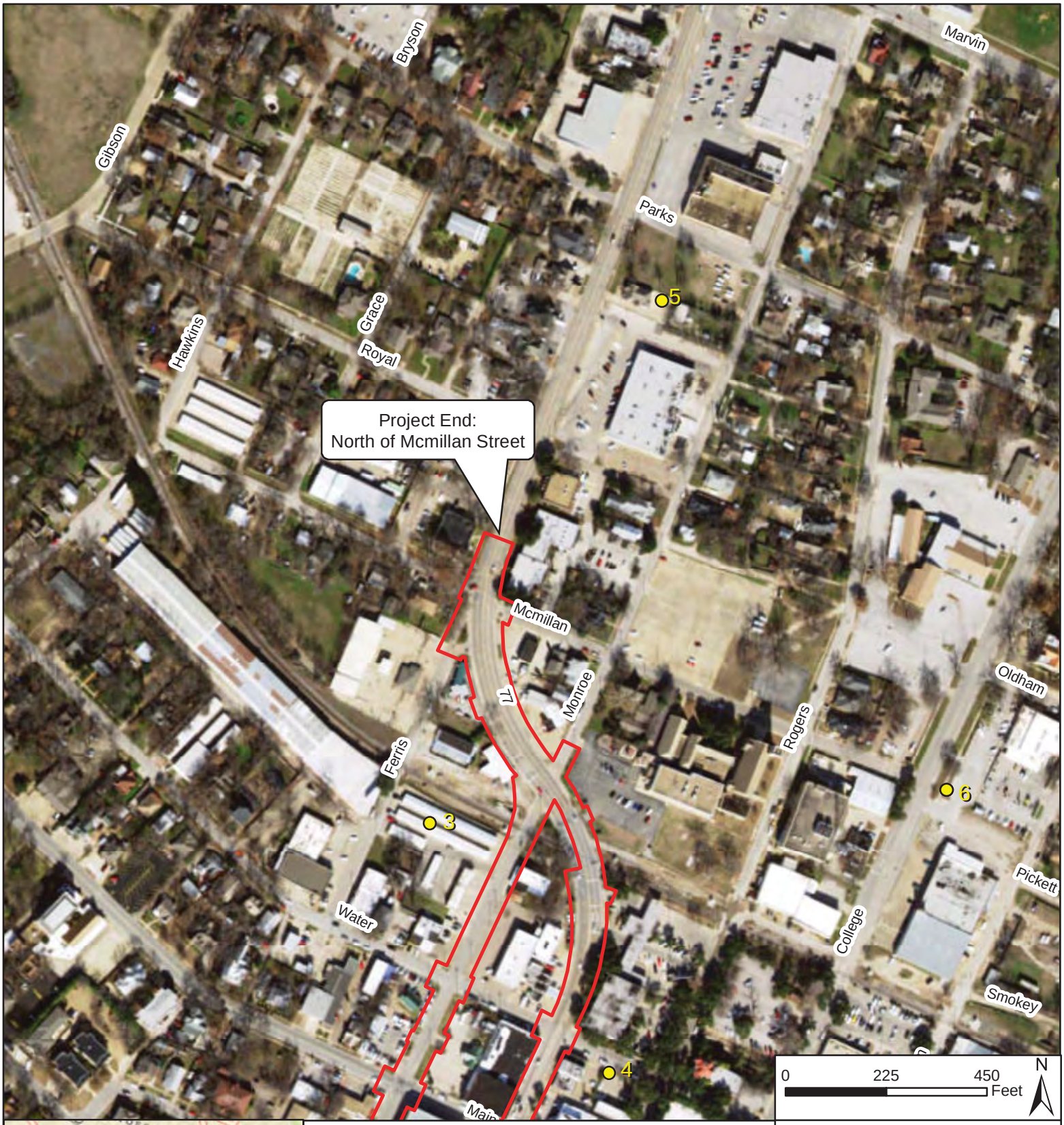
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 5: Water Resources Map
Page 2 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)



Legend

- US 77 Project Limits
- Water Well
- Stream
- **FEMA FLOOD ZONE**
  - 100-year

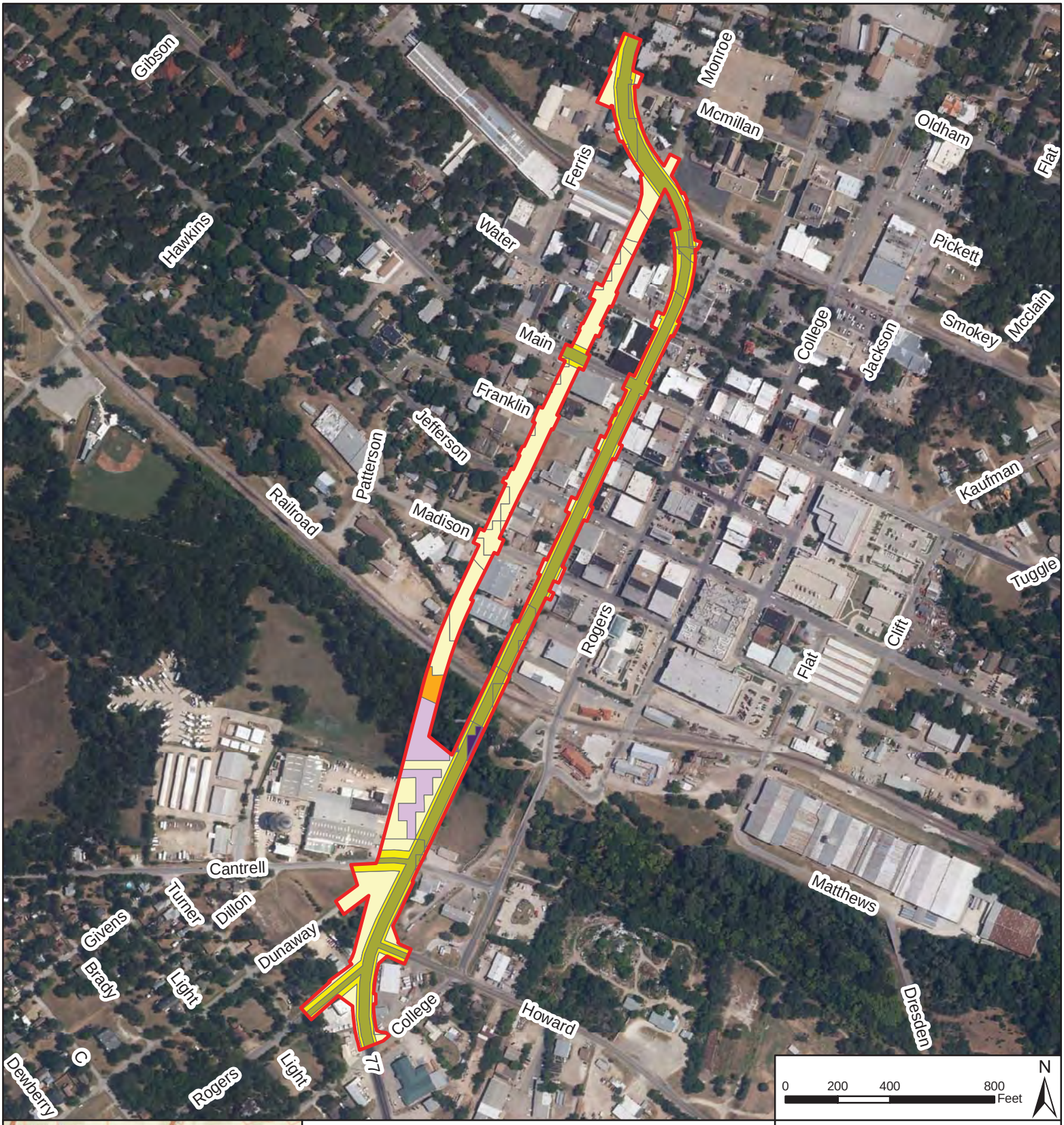
US 77 Improvements Project
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

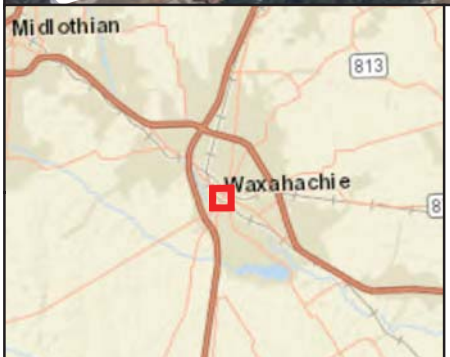
Exhibit 5: Water Resources Map
Page 3 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)





Legend

US 77 Project Limits

EMST MOU Habitat Type

- Disturbed Prairie, Vegetation
- Floodplain, Roadway
- Floodplain, ROW
- Floodplain, Vegetation
- Urban, Roadway
- Urban, ROW
- Urban, Vegetation

US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 6a (Overview): EMST MOU Habitat Before Edits

Texas Department of Transportation

TXDOT CSJs: 0048-03-050 & 0048-03-055

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS
Source: Jacobs Project Team (2015), TPWD EMST (2015), TxDOT EMST (2015)

0 65 130 260 Feet

N

Legend

US 77 Project Limits

EMST MOU Habitat Type

- Disturbed Prairie, Vegetation
- Floodplain, Roadway
- Floodplain, ROW
- Floodplain, Vegetation
- Urban, Roadway
- Urban, ROW
- Urban, Vegetation

US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 6b:
EMST MOU Habitat Before Edits
Page 1 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS
Source: Jacobs Project Team (2015), TPWD EMST (2015), TxDOT EMST (2015)

Legend

US 77 Project Limits

EMST MOU Habitat Type

- Disturbed Prairie, Vegetation
- Floodplain, Roadway
- Floodplain, ROW
- Floodplain, Vegetation
- Urban, Roadway
- Urban, ROW
- Urban, Vegetation

US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 6b:
EMST MOU Habitat Before Edits
Page 2 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Legend

US 77 Project Limits

EMST MOU Habitat Type

- Disturbed Prairie, Vegetation
- Floodplain, Roadway
- Floodplain, ROW
- Floodplain, Vegetation
- Urban, Roadway
- Urban, ROW
- Urban, Vegetation

US 77 Improvements Project

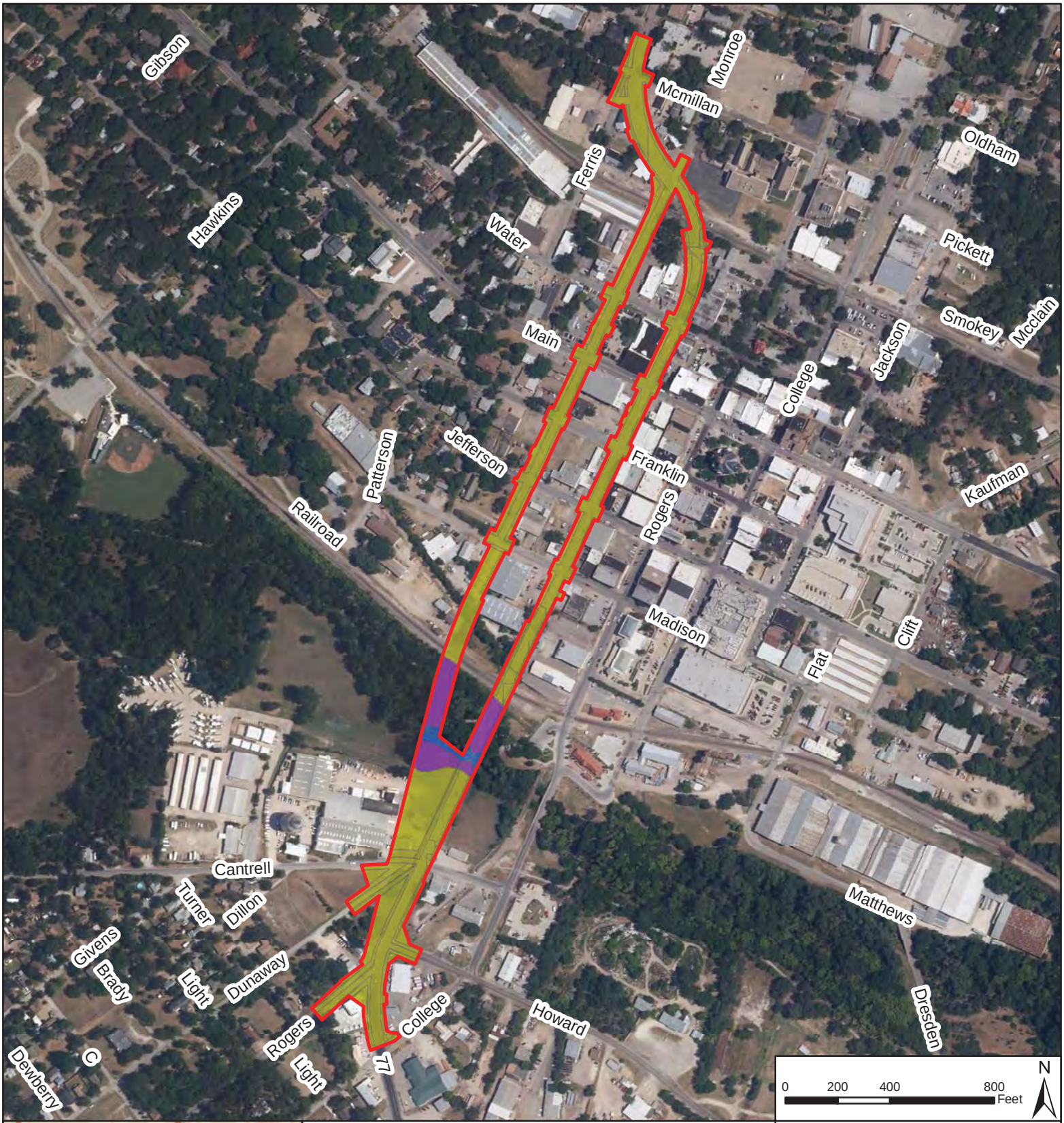
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

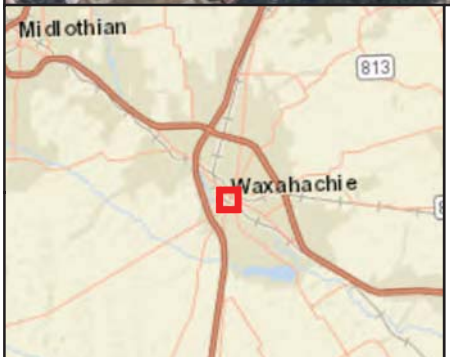
Exhibit 6b:
EMST MOU Habitat Before Edits
Page 3 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS
Source: Jacobs Project Team (2015), TPWD EMST (2015), TxDOT EMST (2015)





Legend

US 77 Project Limits

EMST MOU Habitat Type

Floodplain

Urban

Riparian

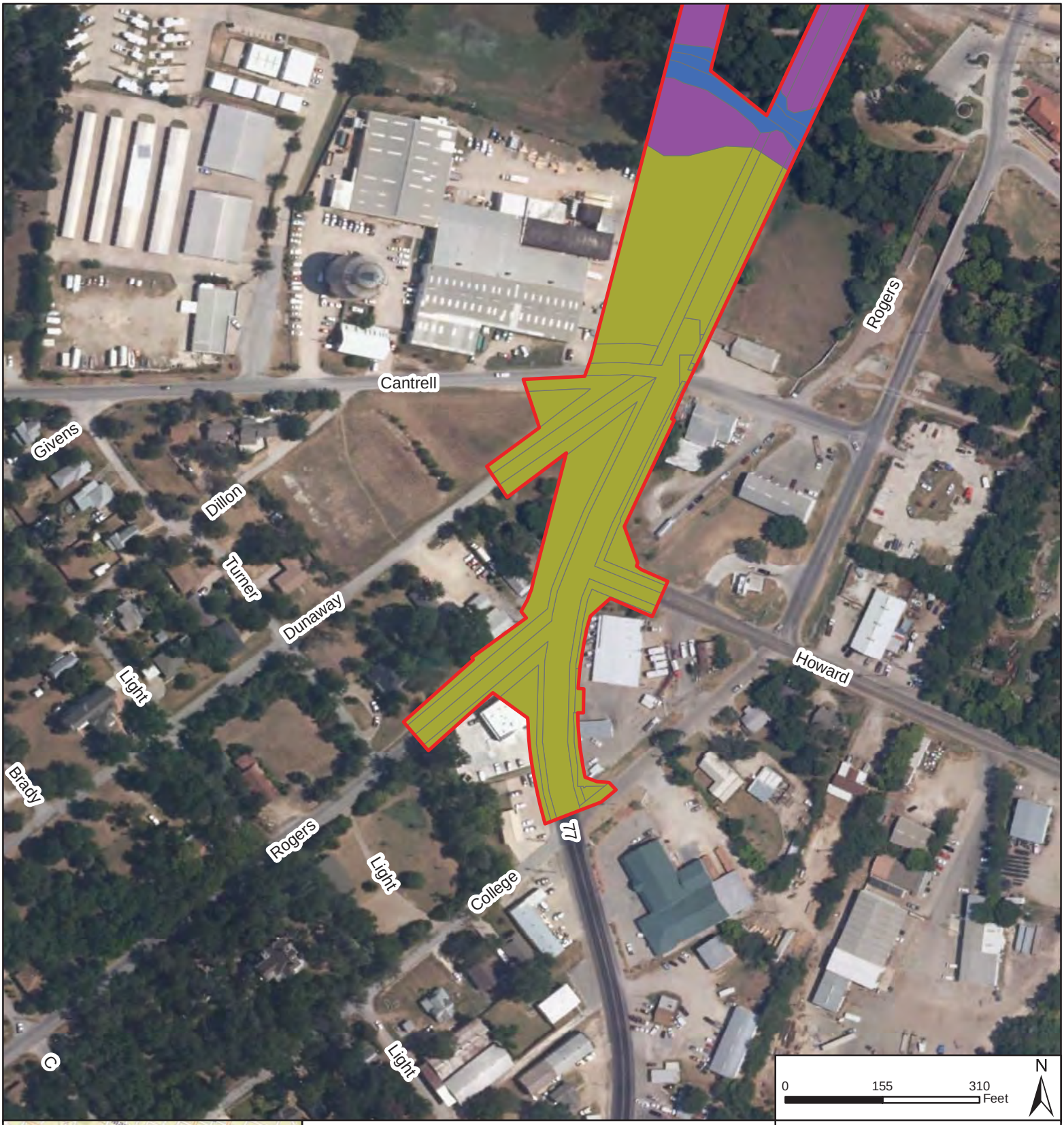
US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 7a (Overview): EMST MOU Habitat After Edits

Texas Department of Transportation

TXDOT CSJs: 0048-03-050 & 0048-03-055



Legend

US 77 Project Limits

EMST MOU Habitat Type

Floodplain

Urban

Riparian

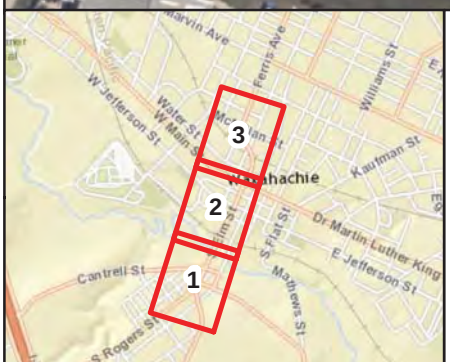
US 77 Improvements Project

(South of Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 7b:
EMST MOU Habitat After Edits
Page 1 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055



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US 77 Project Limits

EMST MOU Habitat Type

Floodplain

Urban

Riparian

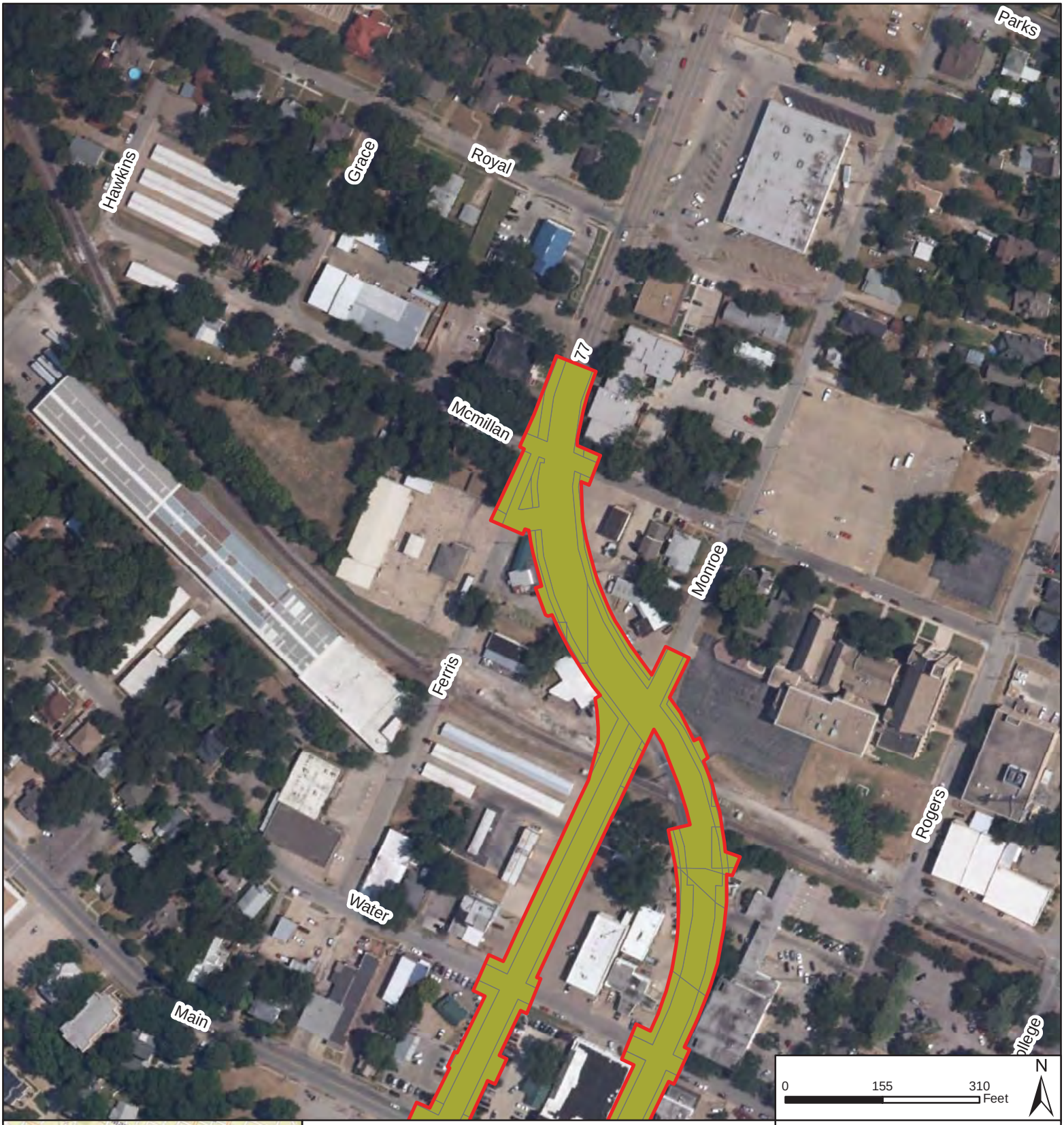
US 77 Improvements Project

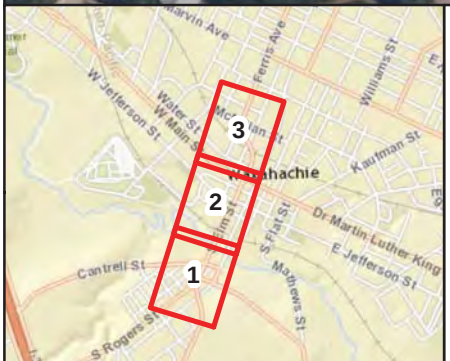
(South of Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 7b:
EMST MOU Habitat After Edits
Page 2 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055





Legend

US 77 Project Limits

EMST MOU Habitat Type

Floodplain

Urban

Riparian

US 77 Improvements Project

(South of Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 7b:
EMST MOU Habitat After Edits
Page 3 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

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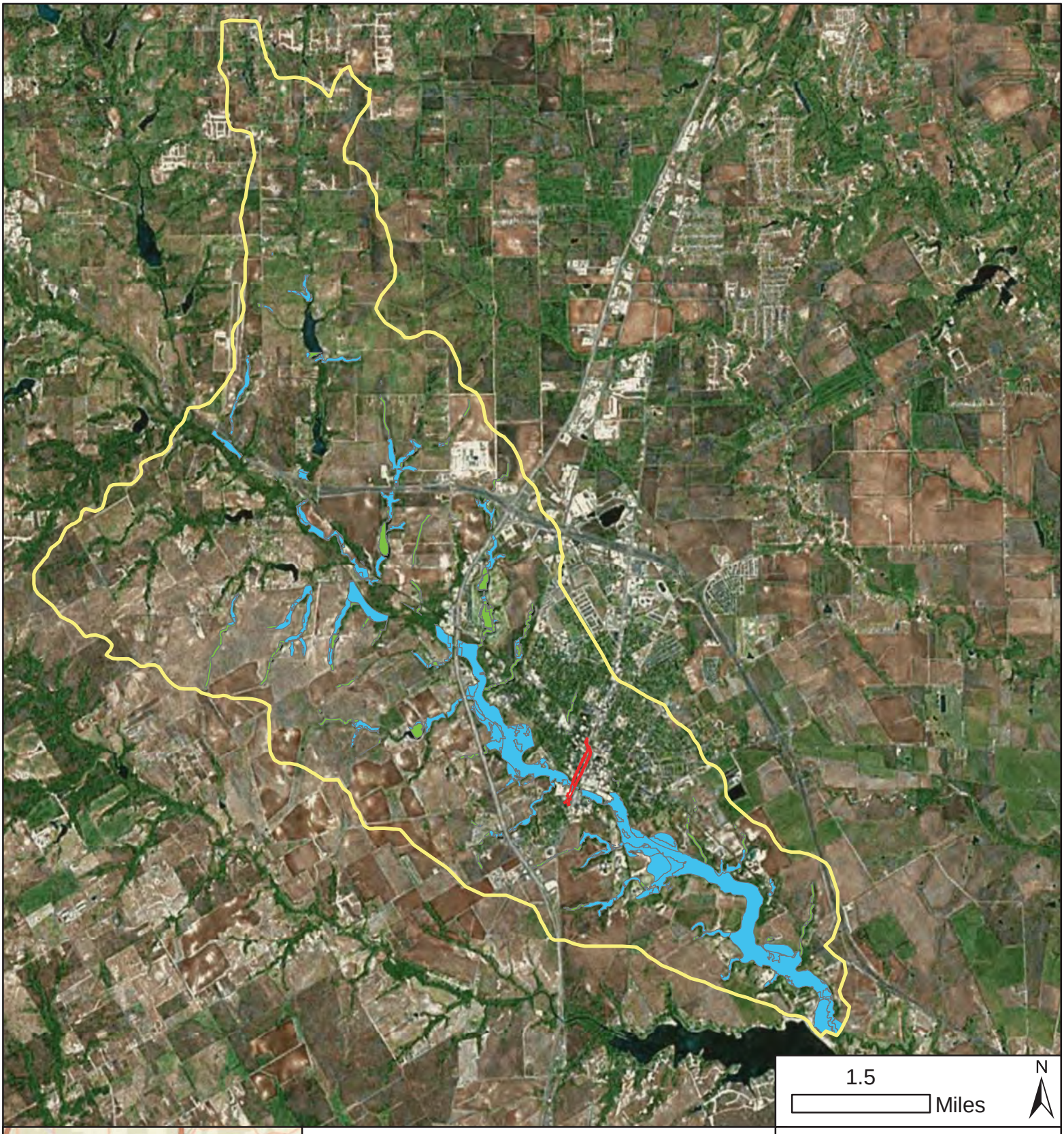
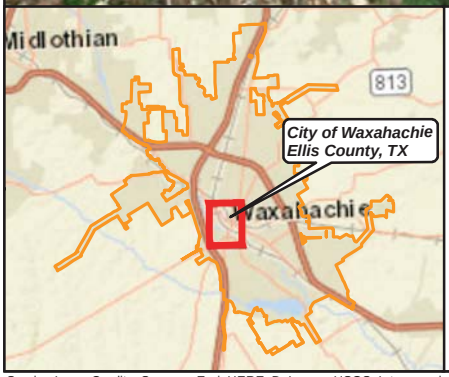
Source: Jacobs Project Team (2015), TPWD EMST (2015), TxDOT EMST (2015)





Legend

US 77 Project Limits

Upper Waxahachie Creek Subbasin / RSA

TxDOT-TPWD MOU Habitat Type

Floodplain

Riparian

US 77 Improvements Project

(South of Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 8:
Southern Crawfish Frog RSA

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

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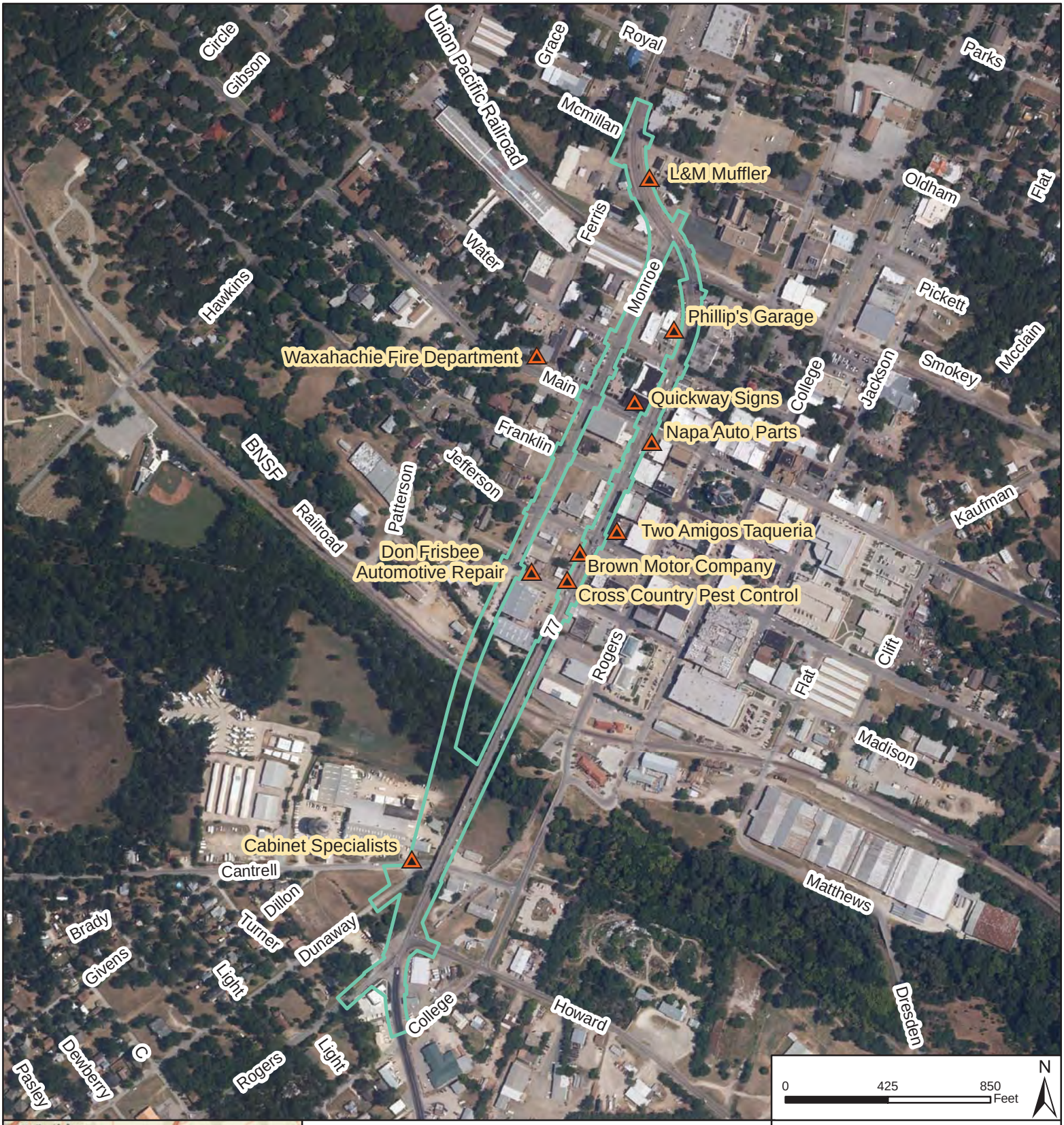


Legend

US 77 Project Limits

Hazardous Materials Sites Located During Visual Survey

US 77 Improvements Project

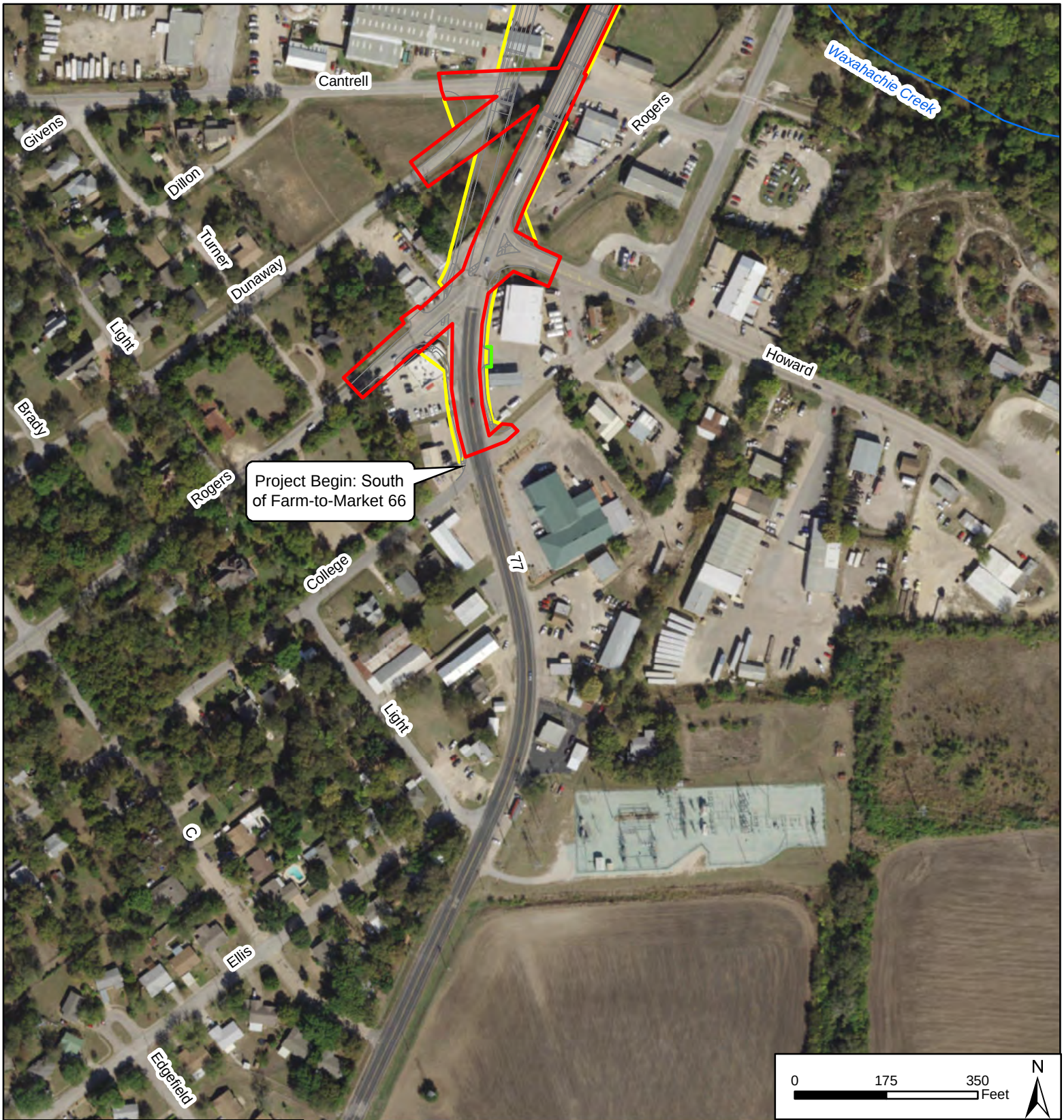
(Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

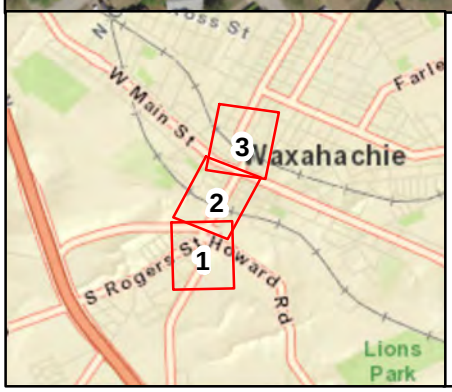
Exhibit 10: Non Regulatory Sites Observed during Visual Survey

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS
Source: Jacobs Project Team (2015)





Legend

- Non-impacted Receiver (R#)
- Existing Right-of-way
- Proposed Right-of-way
- Proposed Driveway Easement
- Proposed Improvements

US 77 Improvements Project

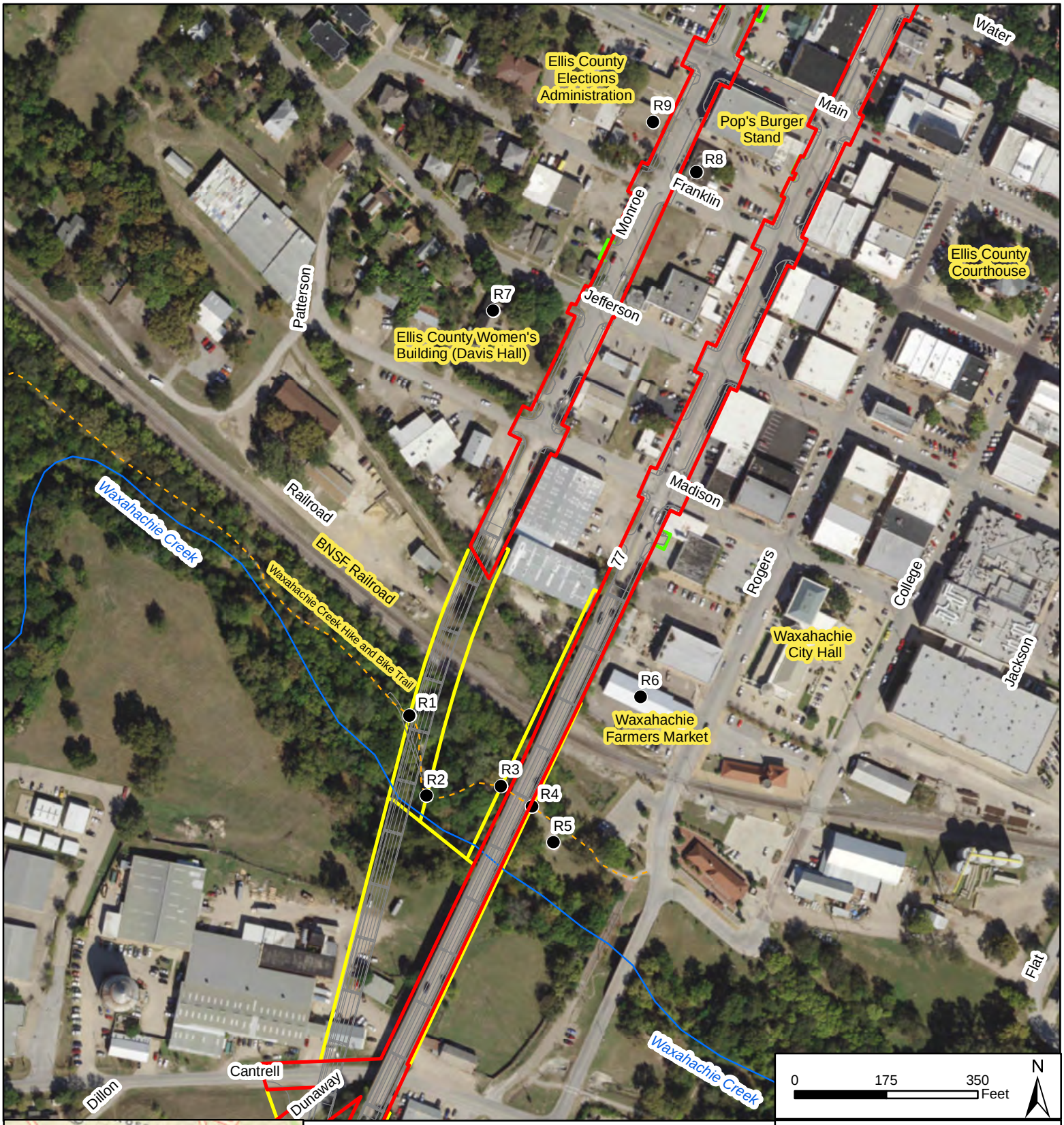
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 11: Noise Receivers
Page 1 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)



Legend

- Non-impacted Receiver (R#)
- Existing Right-of-way
- Proposed Right-of-way
- Proposed Driveway Easement
- Proposed Improvements

US 77 Improvements Project

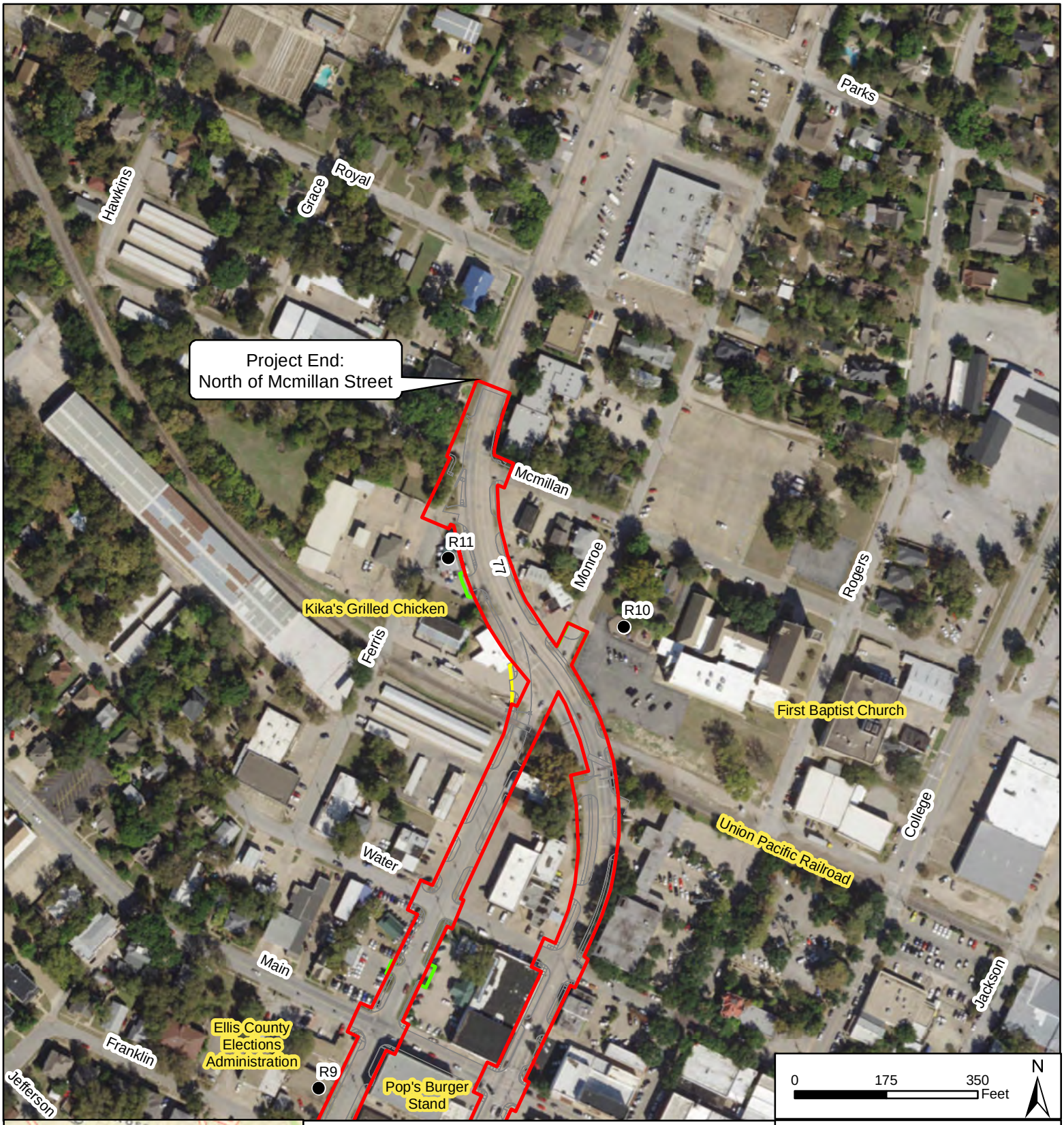
(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 11: Noise Receivers
Page 2 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)



Legend

- Non-impacted Receiver (R#)
- Existing Right-of-way
- Proposed Right-of-way
- Proposed Driveway Easement
- Proposed Improvements

US 77 Improvements Project

(South of Farm-to-Market 66 to
North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 11: Noise Receivers
Page 3 of 3

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)

Appendix G – Resource Agency Coordination

rcvd 11/19/16

Texas Department of Transportation
125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

November 10, 2016

SECTION 106 REVIEW: DETERMINATION OF NRHP ELIGIBILITY AND ADVERSE EFFECT
SECTION 4(f) REVIEW: COMMENT AS OFFICIAL WITH JURISDICTION
Ellis County / Dallas District
US 77 From South of FM 66 to North of McMillan Street, Waxahachie, Texas
CSJ: 0048-03-050 & 0048-03-055

Ms. Linda Henderson
History Programs
Texas Historical Commission
Austin, TX 78711

Dear Ms. Henderson:

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT. In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement signed December 7, 2015, this letter initiates Section 106 consultation on the effect the proposed undertaking poses for historic properties located within the project's area of potential effects (APE). As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency.

Project Description
The TxDOT Dallas District proposes to improve US 77 (Elm Street) between FM 66 (S Rogers Street) and McMillan Street in Waxahachie, Ellis County, Texas. Northbound US 77 traffic will remain on Elm Street; while southbound US 77 traffic migrates to Monroe Street, one block to the west. Intersection improvements at US 77/Monroe Street and US 77/FM 66 facilitate the conversion of these roadways (see plan sheets).

At the south end of the project area, the US 77 Viaduct spans Waxahachie Creek and presently carries all vehicular traffic entering and leaving downtown Waxahachie. The proposed roadway improvements include the replacement of the US 77 Viaduct, which is a contributing resource to the National Register of Historic Places (NRHP) listed Ellis County Courthouse Historic District (ECCHD).

To summarize, the proposed project consists primarily of construction of a one-way couplet design to minimize impacts to the ECCHD, including the following aspects:

- the demolition and rebuilding of the US 77 viaduct with Elm Street carrying US 77 northbound traffic and Monroe Street carrying southbound traffic;
- improvements at the US 77/Monroe Street and US 77/FM 66 intersections, consisting of shifting and widening of existing lanes as well as the addition of new lanes;

- the construction of a new Monroe Street bridge alignment west of the existing viaduct on new ROW, extending south from Monroe Street and intersecting with existing US 77 at FM 66; and
- construction of 70 new ADA curb ramps and sidewalks, along almost every block in the project area.

The project requires additional right-of-way (ROW) of approximately 3.8 acres. The total project length is 0.829 miles. The Area of Potential Affect (APE) is limited to existing ROW where no new ROW is required, extends to parcels wholly or partially within 150 ft where new ROW is required, and abutting parcels for ADA/Sidewalk improvements.

Determination of Eligibility
A review of the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and TxDOT files identified the following historic properties within the APE (see Historic Resource Survey (HRSR) excerpts pg 17-24):

- **Ellis County Courthouse Historic District,** NRHP-listed in 1975 under Criteria A and C for Commerce, Government, and Architecture. The following are a list of contributing properties:
  1931 Viaduct
  CW Gibson Building, constructed 1902 - 215 West Franklin Street
  Two Amigos Taqueria, constructed 1935 - 212 West Jefferson Street
  1889 Rogers Street Bridge (RTHL)
  Waxahachie Cotton Oil Company, constructed circa 1920 - 502 Cantrell Street (see discussion below)

- **Highway Garage**, constructed 1924 – 315 West Main Street - individually listed in NRHP under Criteria A and C: Commerce and Architecture

- **Plumhoff House** – constructed circa 1895 -612 S Rogers Street - individually listed in NRHP under Criteria C: Architecture

- **West End Historic District** NRHP-listed in 1986 under Criteria A and C for Community Planning and Architecture. The following are contributing properties:
  Ellis County Woman's Building/Davis Hall, constructed 1925 – 407 West Jefferson Street, (RTHL)
  The Vacuum Shop – constructed 1930 - 400 West Jefferson

In accordance with provisions of 36 CFR 800, TxDOT historians conducted an architectural survey of the APE in May 2016 to identify additional properties listed and potentially eligible for listing in the NRHP.

Following this survey, TxDOT identified the following historic properties and requests your concurrence: within the APE:

- **Gulf Gas Station,** constructed 1940 - 300 Water Street – TxDOT finds this property individually eligible for listing under Criterion C: Architecture and potentially contributing to NRHP-listed Ellis County Courthouse Historic District

- **Citizen's National Bank**, constructed 1966 – 200 North Elm Street – TxDOT finds this property individually eligible for listing under Criterion C: Architecture
- **307 South Elm Street** circa 1935 – TxDOT finds this property individually eligible for listing under Criterion A: Transportation and Criterion C: Architecture

TxDOT archeologists performed an archeological survey and identified a prehistoric site (**41EL246**). TxDOT finds this site eligible under Criteria D: Information Potential, and determined this project an **adverse effect**. TxDOT notified the Texas Historical Commission Division of Archeology on August 31, 2016. Additional proposed mitigation related to site 41EL246 is incorporated in the mitigation section below.

Based on feedback provided by consulting parties, the following potentially eligible properties were subject to intensive level analysis to finalize determinations of eligibility:

- **301 North Elm Street** – A circa 1955 commercial building with both International and Craftsman stylistic influences. During a TxDOT sponsored public meeting, community members indicated the property was associated with prominent local architect Forest Upshaw. In-depth research and analysis yielded no evidence that Forest Upshaw designed this building; therefore, TxDOT determined this building not eligible for listing in NRHP.

  Waxahachie Cotton Oil Company - circa 1920 - 502 Cantrell Street
  The following property was NRHP-listed as contributing to the ECCHD in 1975. With consulting party feedback, TxDOT determined the Cotton Oil Co. no longer contributes to the ECCHD. The Cotton Oil Co. property sustained significant alterations since the original designation that damaged its ability to convey its association with the peak of cotton production at the turn of the century and the cotton industry's direct relationship to the growth and development of Waxahachie. Significant, unsympathetic alterations to this industrial complex have negatively impacted integrity of the property. Photographic documentation indicates that the one contributing resource to the 1975 NRHP nomination, historically known as the Meal and Press Room, is unrecognizable due to the removal of both the second floor and clerestory (see NRHP nomination excerpts). In addition, extensive alterations to the surrounding landscape negate the ability to interpret the processes and operations that define the cottonseed oil production business. The negative impacts to the property's aspects of integrity include:

  - Location – Integrity intact
  - Design- Severe modification of the main contributing resource and ancillary structures, coupled with new, non-historic additions to the property, cloud understanding of the site as a cottonseed oil processing facility. Character-defining design features on industrial properties tie directly to the function and use of each building. The features that defined the main contributing resource, including the clerestory for added light and ventilation, and the second story with a series of roof vents and flutes, are gone. These features conveyed the need for heat dispersion in the oil refinement process, and served as key indicators of the building's industrial function (see NRHP nomination excerpt photograph). In addition, a conveyor belt linking the building to the greatly altered seed house to the south is gone. The absence of this process flow component which identified the specific interdependent relationships between these buildings further diminishes integrity of design. Other common character-defining building types found at historic

cottonseed oil mills include the mill, the hull house, the seed house, cottonseed oil tanks, silos, and linters. Although one silo remains, along with part of the main contributing building, missing buildings, such as the hull house, combined with irreversible modifications to other building types, corrode this property's integrity of design. Ultimately no character-defining features remain intact on these other building types.

- Setting – Although the historic layout of the site is discernible when referencing historic Sandborn maps, neither the historic relationships between buildings nor the physical attributes that connect the various buildings are visible. The construction of non-historic buildings and additions within the footprint of the cotton oil mill compromise setting. In addition, the missing railroad line, once running between the historic Meal and Press Room and Seed House, is now covered by a non-historic addition. Obscuring this essential transportation feature commonly identified within the landscape of industrial properties further diminishes integrity of setting.
- Materials –Integrity of materials is severely compromised given removal of over half of the main contributing resource. The southern loading dock, once adjacent to the rail line, is the only intact character-defining feature on this building. Although the historic layout of the site is discernable from historic maps and current aerials, the changes to exterior building materials, windows, doors, and roofs on all existing ancillary buildings further diminishes integrity of materials. Most buildings are clad in non-historic corrugated metal siding, with historic window and door fenestrations completely obscured. Lastly, at least two other buildings at the industrial complex have also been converted from two-story to one-story buildings, resulting in significant loss of historic materials.
- Workmanship – Evidence of original workmanship at this cottonseed mill is extremely limited. Given all the alterations detailed above the property lacks integrity of workmanship.
- Feeling - Although the feeling associated with this property still reads as industrial in nature, the specific relationship to a cottonseed oil producing facility is lost. For this reason, the cotton oil mill lacks integrity of feeling.
- Association - Given the lack of visible character-defining features related to cottonseed oil processing, the association of the site with its historic industrial use is no longer evident.

Due to the alterations detailed above, TxDOT determined the Waxahachie Cotton Oil Co. no longer retains integrity of design, setting, materials, workmanship, feeling, and association and therefore it no longer contributes to the ECCHD.

While we are able to proceed with our Section 4(f) process using this determination, we recognize that the implications of this determination suggest that the NRHP-listed boundaries of the ECCHD may require administrative adjustment with the National Park Service. TxDOT recommends that more appropriate boundaries would be parallel to Waxahachie Creek on the south and the outer edge of the 1931 Viaduct on the west.

Consultation with Other Parties

Since the project's inception in 1997, interested stakeholders served as key participants, with their input factored into to each phase of the Section 106 process. TxDOT notified the public of this proposed undertaking early in the project through public meetings at the Waxahachie Chamber of Commerce. These early meetings included interested parties such as the Ellis County Historical Commission, the City of Waxahachie (Certified Local Government), the Waxahachie Heritage

Preservation Commission, Historic Waxahachie, Inc., and the Historic Bridge Foundation. As a part of the Section 106 process, these key participants became members of a project Task Force that reviewed and commented on several alternative project design solutions. At least five public involvement and task force meetings were held between 1997 and 2016, with the THC in attendance at the June 2014, meeting.

In July of 2010, TxDOT invited the Task Force members to continue their project participation as formal consulting parties under Section 106. These parties aided in both identifying historic properties and project effects on those properties. Through public meetings, consultation efforts focused on project activities impacting the 1931 Viaduct. Through Task Force meetings, early efforts focused on rehabilitating the 1931 Viaduct for continued vehicular traffic and converting Elm and Monroe Street to a one-way couplet. Later consultation meetings focused on resolving adverse effects when replacement of the 1931 Viaduct became the most viable option. Through ongoing consultation, consulting parties also concurred with our determination of eligibility and effects on the commercial business at 301 North Elm Street, the Waxahachie Cotton Oil Co., and The Vacuum Shop.

Final review of this project and the proposed mitigation are being done concurrently with consulting parties and any comments will be forwarded immediately.

Determination of Effect
Effects from the US 77 project are tied to roadway improvements, the replacement bridge, the new bridge alignment, ADA upgrades, and associated construction activities. Direct, indirect, and cumulative effects to the 1931 Viaduct and other contributing resources within the Ellis County Courthouse Historic District, the West End Historic District, the Plumhoff House, the Citizen's National Bank, and the commercial building at 307 S. Elm Street are discussed in detail below.

Avoid and Minimize Harm Efforts
Through consultation with stakeholders, the following is a summary of design solutions incorporated by TxDOT to minimize and avoid harm to historic resources identified in project area:

- Limited ROW use on historic properties
- Inclusion of protection notes for historic resources abutting proposed ADA work
- Designing new and replacement bridges with consulting parties to ensure compatibility with surrounding historic contexts
- Replacement in-kind in areas with existing sidewalks and curbs
- Minimal installation of ADA sidewalks and ramps within the boundaries of the Ellis County Courthouse and West End Historic Districts
- Minor changes in the roadway geometries of Elm and Monroe Street within and adjacent to the Ellis County Courthouse and West End historic districts
- At locations where historic resources are close to the existing roadway, increased turning radii at intersections adjacent the Ellis County Courthouse and West End Historic District boundaries to further protect the historic properties from possible vehicular damage
- Reduced number of overall bridge bents within the boundary of the Ellis County Courthouse Historic District (see Bridge Bent exhibit)

Ellis County Courthouse Historic District (ECCHD)

- Direct effects: TxDOT will acquire 0.73 acres of new ROW within the boundaries of the ECCHD (see ROW map). TxDOT will use this new ROW from six parcels that do not contribute to the significance of the ECCHD. The non-contributing parcels associated with the new and replacement bridges include the Waxahachie Cotton Oil Co. and city-owned Waxahachie Creek parkland. The historic district totals 25 acres, and this proposed ROW will use less than 3 percent of the historic district. Only 5 ADA curb ramps are slated for either replacement or installation within the boundaries of the historic district (see construction plans and bridge bent exhibit). Because TxDOT's ADA work within the historic district is minor, that use is limited to fewer than 3 percent of the overall historic district area, and that said use is relegated to non-contributing parcels approximately 1000 ft south of the heart of the historic district, TxDOT finds these are **not adverse effects** to the historic district.

  The Highway Garage, CW Gibson Building, and **Two Amigos Taqueria** abut the location of proposed ramps and sidewalks, and therefore are subject to a potential direct effect. Since these properties are historic, TxDOT will add protection notes to the construction documents, as attached. These notes specify the use of hand tools and creating a buffer between the historic property and the new sidewalks and ramps. The protection notes will ensure protection of integrity of materials, design and workmanship, and thus, there will be **no adverse effect** to these historic properties.

  The removal and replacement of the **1931 Viaduct**, is **an adverse effect** to the historic district. Direct and indirect effects related to this work are addressed at the end of this section.

- Indirect effects: Indirect effects to the ECCHD relate to the introduction of elements, often visual or auditory, that impact the integrity of the historic properties. The following addresses indirect effects to the ECCHD:

  The Gulf Gas Station is adjacent to proposed sidewalks and ramps, but does not directly abut the proposed work; therefore there is minimal potential to affect historic properties (see Figures 2-3). Other hardscape changes relate to minor road widening and the installation of new sidewalks which will occur within the ECCHD, but only impact Elm Street on the westernmost boundary of the historic district, and outside the main thoroughfares and viewsheds of the historic district's most prominent elements. Sidewalk improvements conform to the Downtown Historic Waxahachie Design Guidelines by maintaining and improving pedestrian connectivity. Minor visual changes associated with the road widening and new sidewalks will not alter the property's integrity of location, setting, materials, design, workmanship, feeling or association. Lastly, roadway improvements along Elm Street transition the roadway from two-way to a one-way traffic, likely decreasing vehicular congestion and reducing noise effects on contributing resources within the ECCHD. For these reasons, there are **no noise or visual adverse effects** to historic properties.

  Vertical changes associated with the replacement of US 77 Viaduct and new bridge alignments will affect the viewshed of the ECCHD, however, the proposed new bridges will not adversely affect the character-defining features that make the downtown historic district significant as the traditional center of local government and commerce. Moreover, the centerpiece of the historic district, the Ellis County Courthouse square, is located at the north end of the historic district, well outside the viewshed of the proposed two new bridges, which

will be situated almost 1000 feet to the south and southwest. Viewshed changes resulting from the new bridge alignment primarily impact the former Waxahachie Cotton Oil Co., designed to pass approximately 20 ft to the east of the old Meal and Press Room. The city-owned Waxahachie Creek Park is the only other viewshed impacted by the new bridge alignment. These are both non-contributing resources to the ECCHD. Overall, the new bridge alignment results in fewer viewshed impacts than the replacement bridge for the 1931 Viaduct. Greater impacts are associated with the replacement bridge, due to its location completely within the boundaries of the ECCHD. The only contributing resource to the ECCHD visually impacted by the replacement bridge is the **Roger's Street Bridge**, approximately 250 ft to the east (see Figure 5), and the change is **not an adverse effect.**

TxDOT designed both the new bridge alignment and replacement bridges with consulting parties to minimize effects to the ECCHD. Design elements such as scale, color, material selection correspond with the historic 1931 Viaduct to reduce effects of the new bridge on the ECCHD (see attached new bridge renderings). Design details, including the bridge's support columns, railing, and lighting, adhere to the *Secretary of Interior Standards for Rehabilitation* as it relates to new construction. As defined in Standard 9, the 'new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment'. For these reasons, there will be **no adverse visual effects** to the ECCHD.

Regarding noise effects, the predictive noise modeling report for this project indicated no increased noise impacts to the project area. TxDOT placed four noise receivers within the western edge of historic district boundary along Elm Street as part of the noise analysis. The highest recorded noise level was 58 dB(A), which is well below FHWA's Noise Abatement Criterion for 67 dB(A). Furthermore, noise modeling indicated the highest predicted increase in noise level within the historic district is +3 dB(A), which is considered an imperceptible change to the human ear. For these reasons, there will be **no adverse noise effects** to the ECCHD.

- Cumulative effects: Although removal of the 1931 Viaduct is an adverse effect on the overall historic district, reduced traffic congestion and improved pedestrian facilities will result in a net benefit for the ECCHD by increasing pedestrian mobility and access in and through the historic district. Increased access to the historic center of commerce in Waxahachie will promote its long term economic viability and stability. Continued use is a critical component in the preservation of historic properties, and this project supports increased use of properties within the ECCHD. Minor visual effects and no noise effects will not contribute to cumulative effects on the ECCHD.

West End Historic District

- Direct effects: TxDOT will acquire 0.012 acres of new ROW from **The Vacuum Shop** for driveway reconstruction following the installation of new ADA sidewalks along the east side of this property's parcel (see Figure 3). The historic building will not be touched. This temporary construction easement for site work will not adversely affect the character-defining features that make the property a contributing resource to the West End Historic District.

- Indirect effects: **Ellis County Woman's Building/Davis Hall** abuts proposed ADA sidewalks and ramps, however the building itself is over 120 feet from the proposed work and is far enough away to ensure no direct effect. The proposed work will create very minor visual changes to the historic property, particularly in light of the extensive amount of existing non-historic hardscape, including a parking lot which accommodates 30 vehicles, between the historic property and the proposed work (see Figure 3).

  The Ellis County Woman's Building and **the Vacuum Shop** are situated at the easternmost boundary of the historic district, and remain far away from the main thoroughfares and viewsheds of the historic district's most prominent elements. Although the conversion of Monroe Street as the southbound carrier of US 77 will increase traffic noise, a predictive noise modeling report indicated this project would not cause a significant noise impact. Receiver 7, located close to both of these resources, noted current noise levels of 24 dB(A), and predicted noise levels of 29 dB(A) in 2035. This dB(A) level is well below the FHWA's Noise Abatement Criterion (NAC) for 67 dB(A). For these reasons, there are **no adverse effects** to contributing properties in the West End Historic District. Increased traffic on Monroe Street, along with new pedestrian facilities, increases visibility of these properties within Waxahachie, thus improving prospects for their continued life and use within the community.

- Cumulative effects: Although the proposed work includes a use of .012 acres from a contributing element of the West End Historic District, the temporary and minor nature of the use will not result in any adverse cumulative effects on the property. Furthermore, minimal visual effects and noise effects will not contribute to cumulative effects on the West End Historic District. Since both properties rely on public accessibility for their continued viability, this project may result in **a cumulative net benefit** by providing increased pedestrian connectivity.

The Plumhoff House

- Direct effects: No new ROW required from this property, thus no direct effects (see Figure 6)

- Indirect effects: This historic property parcel abuts new ROW for roadway improvements along South Roger's Street. The house is situated approximately 250 ft from the new Monroe street extension intersection with sidewalks, and approximately 450 ft away from the new Monroe Street bridge's southern terminus (see Figure 3). The rear (northeast) boundary of the property parcel, which is closest to the proposed improvements, includes a grove of trees which buffer the property from both noise and visual impacts. There is also one additional parcel between Resource 37 and the new Monroe Street intersection. The distance of the historic property coupled with the existing buffers, indicate there will be **no visual or noise effects** to this historic property.

- Cumulative effects: A lack of visual and noise effects will not contribute to cumulative effects on this historic property.

The Citizens National Bank and 307 S. Elm Street

- Direct effects: No new ROW required from these properties, thus no direct effects (see Figures 2 and 3).

- Indirect effects: These resource parcels are adjacent to proposed sidewalks and ramps, but do not directly abut the resources, therefore there is minimal potential to effect historic properties. Additionally, visual changes will be very minor and not impact the character-defining features of these properties including location, design, setting, materials, workmanship, association and feeling. For these reasons, there are **no adverse effects** to these properties. Conversely, the conversion of the roadway at this location to a one-way may potentially reduce traffic, thus reducing noise and vibratory effects, resulting in a net benefit effect for these resources. In addition, the improvement of sidewalk systems may promote pedestrian activity in downtown, enhancing the vitality of the NRHP-listed district.

- Cumulative effects: Minor visual effects and no noise effects will not contribute to cumulative effects on this resource.

Resource ID No. 22 –1931 Viaduct
Removal and replacement of the 1931 Viaduct constitutes an **adverse effect** to an historic property. TxDOT examined multiple alternatives to improve the 1931 Viaduct for continued vehicular use on US 77. As mentioned in the previous consultation section, the initial goal was to rehabilitate the existing 1931 viaduct, however, subsequent condition assessments revealed excessive corrosion which altered the recommendation to replacement. A 2014 Historic Bridge Team (HBT) report indicated the 1931 Viaduct is "Structurally Obsolete" and exhibits extensive deterioration. For these reasons, the load carrying capacity and the geometry of the bridge are inadequate for current transportation needs (please see attached HBT report). TxDOT considered measures to avoid or minimize the adverse effect, such as no build, rehabilitating the bridge for continued use, or building a new parallel bridge at a new location and converting the historic bridge to a one-way pair. Detailed analysis of these options determined rehabilitation would result in a loss of 70 to 80 percent of the materials of the bridge, which would be an adverse effect on the integrity of materials, workmanship, feeling, and association. The "no build" option does not address any of the structural or geometric deficiencies that currently keep the bridge from meeting transportation requirements.

The preferred alternative of replacement on the existing alignment as part of a one-way pair would best meet the purpose and need of the project by eliminating existing structural deficiencies, mitigating functional deficiencies, and bringing the roadway into conformance with current design standards and criteria. TxDOT minimized the design impact of the new bridge by allowing consulting parties to assist in the design of the new bridge's railing, lighting, bents, and overall color selection to ensure compatibility with the surrounding historic district. To further minimize impacts, the new replacement bridge will maintain the same width and location within the historic district, while the second new bridge will be constructed west of the Ellis County Courthouse Historic District. In addition, there will be 12 fewer bridge bents overall within the boundaries of the Ellis County Courthouse Historic District due to increased spans associated with the new and replacement bridges (please see Bridge Bent exhibit). Lastly, only non-contributing parcels are associated with ROW takes for the construction of the new and replacement bridge. For these reasons the replacement of the historic viaduct constitutes an adverse effect to the historic district overall, however great efforts were made to reduce and minimize harm associated with the loss of the viaduct. See the attached HBT report discussions of planning efforts to avoid and minimize the adverse effect. TxDOT plans to market the bridge for 30 days online to ensure all avenues to potentially reduce and minimize harm to the historic property have been exhausted.

As stipulated in the 2015 Section 106 Programmatic Agreement, Stipulation X, Section C, TxDOT determined that the replacement of the 1931 Viaduct constitutes an **adverse effect** to the ECCHD. The following mitigation section memorializes TxDOT's commitment to resolving the adverse effect in partnership with consulting parties. This letter documents TxDOT as responsible for fulfilling the following mitigation decision as resolution for the adverse effect of the lost bridge.

Given the adverse effect associated with the removal of the 1931 Viaduct, TxDOT continued Section 106 consultation with the public to resolve the adverse effect. TxDOT held multiple meetings between May and November of 2015 with various consulting parties to address the best ways to lessen the adverse impact of the viaduct's proposed removal. Mitigation consensus focused on public education opportunities to commemorate the 1931 Viaduct. Mitigation efforts also focused minimizing harm to the overall ECCHD by designing the replacement bridge in the 1931 Viaduct's current alignment as part of a one-way pair. This design allowed the replacement bridge to maintain the same width as the historic bridge. The second bridge was designed to the west of the historic district to further reduce harm to the ECCHD. In addition, consulting party's participated in a context sensitive design workshop for the new and replacement bridges in April of 2016 to ensure compatibility with the surrounding historic context.

Mitigation

TxDOT, through consultation with all consulting parties, determined the following mitigation for the adverse effects:

1. Development of an Interpretive Plaza: TxDOT committed to designing a plaza south of and across the street (South College Street) from the historic Missouri-Kansas-Texas railroad depot to serve as an exhibit area with interpretive materials that will present the history of the 1931 viaduct. TxDOT will disassemble, salvage, and integrate 3 to 5 historic viaduct elements, including railing, into the plaza site as exhibit objects. TxDOT will produce interpretive panels detailing the history of the 1931 viaduct which will line the western edge of the plaza and face west, so that visitors to the plaza can simultaneously view the panels and original bridge location. Panels may also address archeological topics. As depicted in the attached schematic plan view of the proposed plaza, the design will feature a paved area with benches, shaded by a central large tree. Accent elements to the interpretive plaza will include four lights and brick pavers incorporated into concrete sidewalks. These brick pavers will visually tie into existing historic brick pavers within the Ellis County Courthouse Historic District (please see attached exhibits highlighting proposed mitigation location and details).

2. Continuing Design Input on New Bridges: Future consultation commitments involve collaborating with consulting parties to develop the content for the interpretive panels, including maps, photographs, and drawings, along with the material and color selection of plaza components during the design phase.

Mitigation Impacts

The proposed mitigation for the loss of historic 1931 US 77 Viaduct is located within the boundaries of the ECCHD. As a result, TxDOT must ensure that the proposed interpretive plaza minimizes, mitigates, and avoids effects on the Ellis County Courthouse Historic District to the fullest extent possible.

The proposed location of the interpretive plaza on the outer southern edge of the historic district is minimally intrusive and does not interfere with the more prominent viewsheds within the core of the

historic district, including the courthouse square. Additionally, the parcel slated for the interpretive plaza is not contributing to the ECCHD. Plaza design details will follow the 2011 Downtown Waxahachie Design Guidelines for small public plazas and courtyards. This includes a context sensitive design and pedestrian connectivity. Additionally, the plaza will be at-grade and low profile, to minimize any viewshed impacts. Lastly, the materials, colors, site furnishings, and landscaping features will be compatible with the ECCHD. These design details preserve and protect the integrity of the surrounding historic context and will ensure a **no adverse effect** finding under Section 106 of the National Historic Preservation Act for this proposed undertaking.

Section 4(f) Implications
The following is a summary of Section 4(f) considerations and implications associated with historic properties within this project's APE:

- **Ellis County Courthouse Historic District**
  1931 Viaduct – The removal of the historic viaduct triggers a 'use' under the Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges.
  The Replacement Bridge - As outlined in FHWA's 4(f) Policy Paper, Question 8d, there is no additional 4(f) use associated with the replacement bridge alignment since none of the surrounding or adjoining property contributes to the significance of the historic district.
  Interpretive Plaza - Research revealed that the parcel slated for the interpretive panel for mitigation is not-contributing to the ECCHD, therefore, a direct 'use' under Section 4(f) of the Department of Transportation Act of 1966 regulation would not be triggered.

- **West End Historic District**
  The Vacuum Shop - The temporary construction easement triggers FHWA's Section 4(f) 'use', however the temporary and minor nature of the project work establish this use eligible as a Section 4(f) Exception and requires concurrence from the Texas Historical Commission.

Certification of 4(f) Exception for Temporary Occupancy
Proposed work will take place in the West End Historic District, which has significance under the requirements of 23 CFR 774.13 (g)(1). In order to qualify for a Section 4(f) exception, it is established that the project activities must meet the following conditions:

1) The duration of the occupancy will be less than the time needed for construction of the project and there will be no change in ownership.
2) The scope of the work would be minor resulting in minimal changes to the property.
3) No significant features of the property would be adversely affected.
4) The occupied segments of the property would be returned to their as-found conditions or better.

Conclusion
We are concurrently consulting with the Historic Bridge Foundation on this project, and other formal consulting parties, and request a 30-day review process to accommodate comment from all organizations by December 14, 2016. TxDOT hereby requests your signed concurrence with our **eligibility determinations** on the Gulf Gas Station, the Citizen's National Bank, 307 South Elm Street, and the Waxahachie Cotton Oil Company. In addition, TxDOT requests concurrence with our **no adverse effect** findings on the West End Historic District, the Highway Garage, the Plumoff House,

the Citizen's National Bank, and 307 South Elm Street. Lastly, TxDOT seeks concurrence with our **adverse effect** finding for the 1931 Viaduct removal from the ECCHD and endorsement of the commitment to continue consultation as mitigation proceeds.

We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774, for both the Section 4(f) exception for temporary occupancy and the Section 4(f) programmatic bridge replacement, and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the afore-mentioned MOU dated December 16, 2014.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please call me at (512) 416-2770 or chantal.mcKenzie@txdot.gov.

Sincerely,

Chantal McKenzie
Historic Preservation Specialist
Historical Studies Branch
Environmental Affairs Division

cc: Bruce Jensen, Cultural Resources Section Director,

CONCUR
by
for Mark Wolfe
Executive Director, THC
Date 19 December 2016
Track#

Texas Department of Transportation

125 EAST 11TH STREET, AUSTIN, TEXAS 78701-2483 | 512.463.8588 | WWW.TXDOT.GOV

Re: Potential adverse effects to National Register of Historic Places eligible site 41EL246. CSJs: 0048-03-050 & 055. City of Waxahachie, Ellis County, Texas. Dallas District.

Ms. Pat Mercado-Allinger
Division Director/State Archeologist
Division of Archeology
Texas Historical Commission
P.O. Box 12276
Austin, TX 78711

Dear Ms. Mercado-Allinger:

The Dallas District (District) of the Texas Department of Transportation (TxDOT) is proposing improvements to highway US 77 in Waxahachie. The proposed project would begin south of Farm-to-Market (FM) 66 and end north of McMillan Street, a distance of 0.829 miles. The project will require construction of a bridge spanning Waxahachie Creek on new alignment, approximately 50 feet wide and 1,190 feet long. The alignment of the proposed bridge is within the boundaries of prehistoric site 41EL246. Site 41EL246 was recorded by PBS&J in 2008 during an Intensive Archeological Survey for the proposed project under Texas Antiquities Permit Number 4690 (Fiona H. Pemberton and Maynard B. Cliff, *Geoarcheological Investigations for the Texas Department of Transportation for Proposed US 77 Bridge Reconstruction, Waxahachie, Ellis County, Texas. 2008*).

The PBS&J investigations excavated five backhoe trenches, four to the south of Waxahachie Creek and one trench to the north (**Exhibits A and B**). The four south trenches contained buried archeological material that was recorded as site 41EL246. Identified material included medium to large mammal bone and bone fragments and burned rock fragments at depths from 130 to 220 cm below surface (**Exhibits C through F**). Buried soils indicate previous soil development and floodplain stability and based upon this assessment, at least two occupations are represented in the trenches (**Exhibit G**). The characteristics of the setting and the preliminary findings of faunal remains and sparse lithics are similar to recent TxDOT-sponsored data recovery excavations at site 41DL436, the Fish Creek Slough Site (Dave Nickels editor, *Archaeological Data Recovery at Fish Creek Slough Site [41DL436], Texas Antiquities Permit 5764, 2014*).

During the planning for the Lake Ridge Parkway in the City of Grand Prairie, Dallas County, TxDOT sponsored data recovery excavations at site 41DL436, the Fish Creek Slough Site after recommending the site as eligible for the National Register of Historic Places. The site contained few lithic artifacts but extensive faunal and paleoenvironmental data assemblages were obtained. Excavations emphasized mechanical stripping of large horizontal exposures combined with feature-targeted hand excavations.

An examination of the survey results indicates that site 41EL246 meets Criterion D of 36CFR §60.4 Criteria for Evaluation, a site "(t)hat has yielded or may be likely to yield, information important in history or prehistory. The initial assessment of site 41EL246 identified an alluvial setting capable of preserving archeological deposits in-place and further eligibility testing would most likely confirm that

the site is eligible for listing. The observed degree of preservation would allow for accurate dating of associated cultural deposits and paleoenvironmental data.

TxDOT is proposing that the site 41EL246 is eligible for listing in the National Register and therefore, the proposed project will have an adverse effect on an archeological historic property. In partial mitigation for the adverse effects, TxDOT is proposing data recovery excavations at the site as defined within the proposed Area of Potential Effects.

TxDOT seeks THC concurrence that:

1) site 41EL246 is eligible for listing in the National Register of Historic Places;

2) the proposed project will have an adverse effect on site 41EL246;

3) TxDOT will conduct data recovery excavations in partial mitigation for the adverse effects.

4) As the Texas State Historic Preservation Officer is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774, your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for purposes of the Section 4(f) process will be rendered by TxDOT pursuant to 23 USC 327 and the MOU between TxDOT and FHWA dated December 16, 2014. The proposed project will have an adverse effect on the site. This site, however, is primarily eligible for inclusion in the National Register of Historic Places for the data that it contains, and it does not otherwise merit preservation in place. We therefore seek your concurrence on our determination of an exception under Section 4(f) regulations (23 CFR 774.13(b)).

Thank you for your consideration of this matter. If you have any questions, please contact me at (512) 416-2505 or Eric.Oksanen@txdot.gov.

Sincerely,

E.Ok

Eric Oksanen.
Archeological Studies Program
Environmental Affairs Division
Texas Department of Transportation

cc: ECOS

Concurrence By:

Mark H Wolfe 8-31-16

for: Mark Wolfe, Executive Director and SHPO — Date
Texas Historical Commission

Texas Department of Transportation
125 EAST 11TH STREET | AUSTIN, TEXAS 78701-2483 | (512) 463-8588 | WWW.TXDOT.GOV

September 2, 2016

SECTION 106 REVIEW: LETTER AGREEMENT FOR MITIGATION
Ellis County / Dallas District
US 77 From South of FM 66 to North of McMillan Street, Waxahachie, Texas
CSJ: 0048-03-050 & 0048-03-055

Name
Address

Dear XXXXXXXXX:

The Regulatory Process

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT. In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement (Section 106 PA), this letter memorializes our mitigation commitment for the adverse effect Section 106 determination on the US 77 Viaduct removal. TxDOT's regulatory role for this project is that of the Federal action agency.

Determination of National Register Eligibility and Effects

The proposed project will require demolition and replacement of the existing US77 Viaduct, a contributing resource to the Ellis County Courthouse Historic District which is listed in the National Register of Historic Places (NRHP). A Historic Bridge Team (HBT) performed a study of the bridge in 2014 which determined the Waxahachie Viaduct exhibits a number of structural deficiencies that severely limit the bridge's capacity to meet the needs of modern vehicular traffic on US77. The bridge has cracks, delaminations, and spalls with exposed rebar throughout the superstructure, and sporadic spalling throughout the substructure, amongst other structural issues. High levels of chlorides and carbonation of the concrete are the main causes of the bridge deterioration. The US77 Viaduct does not meet current load requirements due to its inherent design limitations coupled with the aforementioned deterioration of the bridge over time. The functionality of the bridge is limited in its load-carrying capacity as well as its geometry for today's transportation needs.

In March of 2015, TxDOT completed a Section 4(f) Programmatic Evaluation of the historic bridge to determine the most prudent and feasible alternative for deficiencies. While TxDOT originally intended to preserve the historic bridge, the work needed to rehabilitate the existing structure for continued vehicular use would be widespread and extensive. Due to high levels of chlorides and carbonation of the concrete in all of the structural bridge members, approximately 70-80 percent of the existing structure would require removal and replacement. This would be an adverse effect as it would negatively affect the character-defining features for which the bridge is significant for inclusion in the NRHP. Therefore, the rehabilitation alternative was deemed feasible but not prudent.

The preferred alternative chosen by TxDOT is replacement of the US77 Viaduct on the existing alignment as part of a one-way pair. The new bridge constructed at the existing location would not be wider than the current bridge, in response to the constraints from the NRHP-listed Ellis County

Courthouse Historic District. In order to meet current design standards, a second bridge would be constructed outside and west of the NRHP-listed district, and the two bridges would serve as a one-way pair with each bridge carrying two lanes of traffic in one direction. The Section 4(f) Programmatic Evaluation deemed removal and replacement of the US77 Viaduct the most prudent and feasible alternative.

Public Involvement Summary

Since June of 2014, TxDOT Dallas District and Environmental Affairs Division conducted numerous public meetings to discuss the proposed US77 improvement project and mitigation options for the loss of the historic bridge. These meetings provided consulting parties the opportunity to comment and voice preferences for the mitigation plans. Ideas proposed by consulting parties at the public meetings include an alcove extending from the replacement bridge with interpretive panels that highlight the historic viaduct, and a plaza south of and across the street (South College Street) from the old Missouri-Kansas-Texas railroad depot that would feature interpretive panels with information about the historic bridge. TxDOT ruled out the former two options for either safety or excessive cost and chose the latter option, the plaza with interpretive panels, as the most feasible solution. TxDOT unveiled this mitigation option at a Public Meeting in February of 2016. Many comments made by consulting parties expressed that the interpretive plaza, as designed, did not sufficiently mitigate the loss of the historic bridge.

In April of 2016, consulting parties participated in a TxDOT design meeting to help select new bridge elements compatible with the NRHP-listed district. Consulting party selections included elements such as bent design, railings, light poles, and overall bridge colors. Participation in the new bridge design served as one aspect of mitigation for the US 77 Viaduct replacement. The attached rendering depicts the design elements decided at this meeting.

Public involvement efforts culminated with a final public meeting with consulting parties on Monday, August 29, 2016 in Waxahachie. At this meeting, TxDOT informed the consulting parties that the proposed mitigation of an interpretive plaza as originally designed was moving forward. Although TxDOT seriously considered stakeholder comments from the Public Meeting in February of 2016, budgetary and regulatory constraints dictated mitigation alternatives. The consulting parties voiced dissatisfaction with the plan and stated the following preferences:

- The plaza should incorporate salvageable segments of railing and pilasters from the historic viaduct;
- The plaza should have more lighting;
- The plaza should have the potential to draw tourists and passers-by to the site;
- The plaza should have more park and landscape features;
- Consulting parties want to collaborate with TxDOT to develop content for the interpretive panels and final design of the plaza;
- The plaza should have more seating; and
- The plaza should have more shade.

Ultimately, meeting participants reached consensus by incorporating this feedback and revising certain design aspects of the mitigation as proposed.

Proposed Mitigation

Based on the public meeting outcome, TxDOT will design a plaza south of and across the street (South College Street) from the old Missouri-Kansas-Texas railroad depot to serve as an exhibit area with interpretive materials that present the history of the original US77 Viaduct. TxDOT will disassemble, salvage, and integrate 3 to 5 historic viaduct elements, including railing, into the plaza site as exhibit objects. TxDOT will produce interpretive panels detailing the history of the US77 Viaduct which will line the western edge of the plaza and face west, so that visitors to the site can simultaneously view the panels and original bridge location. TxDOT will collaborate with the project consulting parties to develop the content for the interpretive panels, including maps, photographs, and drawings, along with the material and color selection of plaza components during the design phase. As depicted in the attached schematic plan view of the proposed plaza, the design will feature a paved area with benches, shaded by a central large tree. Accent elements to the interpretive plaza will include four lights and brick pavers incorporated into concrete sidewalks. These brick pavers will tie into existing historic brick pavers within the NRHP-listed district.

Conclusion

We welcome your concurrence with our findings or comment via the consulting party process. Any comments you provide will be integrated into our subsequent consultation with the Texas Historical Commission. If we do not receive a written response within 30 days, we will assume that you concur with the proposed mitigation.

We look forward to continued consultation with you on the design, layout, and content of the proposed mitigation. Thank you for your input in this federal review process. If you have any questions or comments, please call me at (512) 416-2770 or email at Chantal.McKenzie@txdot.gov.

Sincerely,

Chantal McKenzie
Historic Preservation Specialist
Historical Studies Branch
Environmental Affairs Division

cc: Bruce Jensen, Cultural Resources Section Director, _____

Leslie Mirise

From: Laura Zebehazy <Laura.Zebehazy@tpwd.texas.gov>
Sent: Friday, August 26, 2016 4:29 PM
To: Leslie Mirise
Cc: Jim Dobbins; Dan Perge; Jan Heady
Subject: RE: 0048-03-050, etc US 77 Historic Bridge and Couplets Project - Requesting Early Coordination
Attachments: DAL TPWD 004803050.pdf

Good afternoon, Leslie,

Thank you for providing further information about the 4(f) and Chapter 26 of the Texas Administrative Code evaluations. Based on our phone conversation and in regard to the non-native invasive tree species *within* the project area, TPWD understands TxDOT will demonstrate a good faith effort to determine if it's contractor can safely and appropriately treat with herbicide any stumps of non-native invasive species removed from the project around adjacent to Waxahachie Creek.

With that being said, thank you for submitting the US 77 Historic Bridge and Couplets project (CSJ 0048-03-050) in Ellis County for early coordination. TPWD appreciates TxDOT's commitment to implement the Best Management Practices discussed in the information provided, associated with the previous coordination dated April 16, 2010 (please see attached), and in the emails below. Based on a review of the project description and the avoidance and minimization efforts described, and provided that the project plans do not change, TPWD considers coordination to be complete. However, please note it is the responsibility of the project proponent to comply with all federal, state, and local laws that protect fish, wildlife, and plants.

Sincerely,

Laura Zebehazy, CWB
Transportation Conservation Coordinator
TPWD – Wildlife Habitat Assessment Program
Phone: (512)389-4638

From: Leslie Mirise [mailto:Leslie.Mirise@txdot.gov]
Sent: Friday, August 26, 2016 4:00 PM
To: Laura Zebehazy <Laura.Zebehazy@tpwd.texas.gov>
Cc: Jim Dobbins <Jim.Dobbins@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Jan Heady <Jan.Heady@txdot.gov>
Subject: RE: 0048-03-050, etc US 77 Historic Bridge and Couplets Project - Requesting Early Coordination

Hi Laura,

TxDOT is aware that Section 4(f) and Chapter 26 apply to the project. The following language comes from the project's technical report (please excuse the email formatting):

2.3 Public Lands

2.3.1 Section 4(f) Evaluation

Under Section 4(f) of the 1966 Transportation Act (23 CFR 774), projects which impact or use public parks, recreation areas, wildlife, or waterfowl refuges and historic sites must perform a 4(f) evaluation. The proposed project would require the use of City of Waxahachie's Hike and Bike Trail along Waxahachie Creek for column placement for the new bridge. Additionally, the existing US 77 Viaduct is listed on the National Register of Historic Places (NRHP) as a

contributing feature to the Ellis County Courthouse Historic District. The proposed project would also replace the existing US 77 bridge. Therefore, a Section 4(f) evaluation for both impacts would be required. The 4(f) review process is currently underway and will be documented in the EA for the proposed project.

2.3.2 Chapter 26 of the Parks and Wildlife Code

Chapter 26 of the Texas Administrative Cod (TAC) addresses the use of special ROW areas, such as parkland. However, it does not constitute a mandatory prohibition against the use of these areas if findings are made that justify the approval of a program or project. It should be noted that this determination can only be made after a notice and a public hearing have been held.

TAC Title 13, Part 2, Chapter 26 states:

A department, agency, political subdivision, county or municipality of this state may not approve any program or project that requires the use of taking of any public land designated and used prior to the arrangement of the program or project as a park, recreation area, scientific area, wildlife refuge or historical site, unless the department, agency, political subdivision, county or municipality, acting through its duly authorized governing body or office determines that:

1. There is no feasible and prudent alternative to the use or taking of such land; and
2. The program or project includes all reasonable planning to minimize harm to the land, as a park, recreation area, scientific area, wildlife refuge or historic site, resulting from the use or taking (Texas Parks and Wildife Department (TPWD) 1983).

As impacts are expected to the City of Waxahachie's Hike and Bike Trail and the NRHP-listed US 77 viaduct, the evaluation and public involvement procedures for this project would be consistent with the requirements of Chapter 26 of the Parks and Wildlife Code. Compliance with Chapter 26 would documented in the Final EA.

No other parks or recreation areas, publicly owned parklands, wildlife or waterfowl refuges, recreational areas, or known historic sites would be directly impacted by the proposed project.

Some non-native invasive species were observed in riparian and floodplain vegetation, such as Chinese privet (*Ligustrum sinense*). Removal of invasive vegetation along the park corridor is not a part of the project description. That said, the proposed project would minimize soil disturbance in the ROW in order to minimize invasive species establishment, per Executive Order 13112 on Invasive Species.

Please let me know if you need further information.

Thanks!

Leslie Mirise
Environmental Specialist
Dallas District – Advance Planning
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

From: Laura Zebehazy [mailto:Laura.Zebehazy@tpwd.texas.gov]
Sent: Thursday, August 25, 2016 4:49 PM

To: Leslie Mirise
Cc: Jim Dobbins; Dan Perge; Jan Heady
Subject: RE: 0048-03-050, etc US 77 Historic Bridge and Couplets Project - Requesting Early Coordination

Hi Leslie,

With the changes in design near Waxahachie Creek and hike-and-bike trail, has TxDOT contacted the TPWD Recreation Grants Program again to make sure that the current project proposal still does not cause a conversion of use? Are there any non-native invasive tree species within the riparian corridor? Is it possible for TxDOT to facilitate their safe removal to stop seed dispersal along this waterway?

Laura

Laura Zebehazy, CWB
Transportation Conservation Coordinator
TPWD – Wildlife Habitat Assessment Program
Phone: (512)389-4638

From: Leslie Mirise [mailto:Leslie.Mirise@txdot.gov]
Sent: Tuesday, August 23, 2016 4:45 PM
To: Laura Zebehazy <Laura.Zebehazy@tpwd.texas.gov>
Cc: Jim Dobbins <Jim.Dobbins@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Jan Heady <Jan.Heady@txdot.gov>
Subject: RE: 0048-03-050, etc US 77 Historic Bridge and Couplets Project - Requesting Early Coordination

Hi Laura,

The previous (in-house draft) EA, dated October 2009, was what was coordinated with TPWD as far as I can tell. I cannot find any record of that EA ever being finalized at that time. Under that previous design, there was 1.3 acre of right-of-way (ROW) and 0.4 acre of easements. The alignment has only received only minor adjustments since that time; however, the amount of ROW and easements has been updated. Under the new design, there would be 3.8 acres of ROW and 0.14 acre of driveway easements. I've pulled a few of the pages from the old, in-house draft EA that show the previous proposed ROW (see attached). The main increase I can see is over the south side of the Waxahachie Creek corridor. The new design also includes a small section of park trail reconstruction as a result of the new bridge beams' installation.

Please let me know if you need any additional information.

Thanks!

Leslie Mirise
Environmental Specialist
Dallas District – Advance Planning
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

From: Laura Zebehazy [mailto:Laura.Zebehazy@tpwd.texas.gov]
Sent: Tuesday, August 23, 2016 3:54 PM
To: Leslie Mirise
Cc: Jim Dobbins; Dan Perge; Jan Heady
Subject: RE: 0048-03-050, etc US 77 Historic Bridge and Couplets Project - Requesting Early Coordination

Hi Leslie,

Have you made any progress in determining what exactly has changed with the project since the last coordination? I will be out of town all of next week so I'd like to either get further along with my review or complete it all together by COB Friday.

Thanks,
Laura

Laura Zebehazy, CWB
Transportation Conservation Coordinator
TPWD – Wildlife Habitat Assessment Program
Phone: (512)389-4638

From: Leslie Mirise [mailto:Leslie.Mirise@txdot.gov]
Sent: Monday, August 15, 2016 5:09 PM
To: Laura Zebehazy <Laura.Zebehazy@tpwd.texas.gov>
Cc: Jim Dobbins <Jim.Dobbins@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Jan Heady <Jan.Heady@txdot.gov>
Subject: RE: 0048-03-050, etc US 77 Historic Bridge and Couplets Project - Requesting Early Coordination

Hi Laura,

I pulled these previous coordination documents off of ECOS (see attached). My understanding is that there have been minor realignments of the roadway and possibly other components have been redesigned. ROW acreages have changed as well. I will look into it more thoroughly on Wednesday, but at least these documents should help with your review in the meantime.

Thanks!

Leslie Mirise
Environmental Specialist
Dallas District – Advance Planning
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

From: Laura Zebehazy [mailto:Laura.Zebehazy@tpwd.texas.gov]
Sent: Monday, August 15, 2016 4:58 PM
To: Leslie Mirise

Cc: Jim Dobbins; Dan Perge; Jan Heady
Subject: RE: 0048-03-050, etc US 77 Historic Bridge and Couplets Project - Requesting Early Coordination

Good afternoon, Leslie,

I have begun my preliminary review of the US 77 Historic Bridge and Couplets project in Ellis County. You mention that this project was coordinated before – can you provide the previous coordination correspondence and clarify the substantial changes that have been made with the current project versus the previous coordination?

Thank you,
Laura

Laura Zebehazy, CWB
Transportation Conservation Coordinator
TPWD – Wildlife Habitat Assessment Program
Phone: (512)389-4638

From: WHAB_TxDOT
Sent: Tuesday, August 09, 2016 3:24 PM
To: Leslie Mirise <Leslie.Mirise@txdot.gov>; WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>
Cc: Jim Dobbins <Jim.Dobbins@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Jan Heady <Jan.Heady@txdot.gov>; Laura Zebehazy <Laura.Zebehazy@tpwd.texas.gov>
Subject: RE: 0048-03-050, etc US 77 Historic Bridge and Couplets Project - Requesting Early Coordination

Good afternoon,

The TPWD Wildlife Habitat Assessment Program has received your request and has assigned it project ID #36924. The Habitat Assessment Biologist who will complete your project review is copied on this email.

Thanks,
Kim Milburn
Administrative Assistant
Wildlife Diversity Program
Email: Kim.milburn@tpwd.texas.gov
Office: (512) 389-8111
Fax: (512) 389-8758

From: Leslie Mirise [mailto:Leslie.Mirise@txdot.gov]
Sent: Monday, August 08, 2016 12:44 PM
To: WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>
Cc: Jim Dobbins <Jim.Dobbins@txdot.gov>; Dan Perge <Dan.Perge@txdot.gov>; Jan Heady <Jan.Heady@txdot.gov>
Subject: CSJ: 0048-03-050, etc US 77 Historic Bridge and Couplets Project - Requesting Early Coordination

Hello,

TxDOT requests early coordination for the US 77 Historic Bridge and Couplet project (CSJ: 0048-03-050, etc) in Waxahachie, Ellis County, Texas. I have attached the following:

1. The Biological Evaluation Form, that contains a summarized project description, the Tier 1 Site Assessment, and BMPs to be implemented;

2. The Biological Evaluation Supporting Documents, that contains the project area map and limits, EMST documentation, and NDD EOID results, and site photos; and
3. The EMST/Vegetation Impacts Table Excel Spreadsheet.

These documents, in addition to a Water Resources Technical Report, are also available in ECOS under the CSJ: 0048-03-050 Documents/Biology and Documents/Water sections. The Biological Technical Report is forthcoming and will be made available on ECOS shortly.

Please feel free to contact me with an questions or if you need any additional information.

Sincerely,

Leslie Mirise
Environmental Specialist
Dallas District – Advance Planning
Texas Department of Transportation
4777 East Highway 80
Mesquite, Texas 75150
(214) 320-6162 office
(214) 320-4470 FAX

Sellers, Jason

From: Texas Natural Diversity Database <TexasNatural.DiversityDatabase@tpwd.texas.gov>
Sent: Monday, August 31, 2015 5:04 PM
To: Sellers, Jason
Cc: Michel, Tracy
Subject: RE: TXNDD Request, US 77 Waxahachie, Texas
Attachments: sellers_20150827.zip

Dear Jason,

Please note that the TXNDD does not currently have any records for your area of interest. This should not be interpreted as an absence of rare or endangered species in the area. For a variety of reasons, we do not have data on every rare species in every part of the state. Please see the document 'shapefile_data_interpretation.doc' in the attached documentation for information on how to interpret TXNDD data (or the lack thereof). There were, however, records for the surrounding quads, and so I am including the EO list in the attached folder.

We are no longer providing Managed Area shapefiles and associated Managed Area Reports. To obtain shapefiles for Wildlife Management Areas and State Park Boundaries, please visit the Texas Parks and Wildlife Dept. GIS Data Download page (https://tpwd.texas.gov/gis/data/).

The Texas Natural Diversity Database (**TXNDD**) includes federal and state listed and tracked Threatened, Endangered, and Rare species. The attached .zip file contains documents that will guide you in appropriate use, restrictions, and shapefile interpretation of Texas NDD data as well as a submission form for adding data to the TXNDD. Also included is a shapefile of the Threatened, Endangered and Rare species element occurrences made from information the TXNDD has available presently for the requested quad(s) (or within the requested county if applicable) along with a companion EO **report**. Areas where EO data are absent **do not mean** absence of occurrence for Threatened, Endangered, and Rare species. If applicable, included is an **EO List** of the Threatened, Endangered and Rare species element occurrences that are on the quads adjacent to your request area. The **EO List** is to inform you of other potential federal and state listed and tracked Threatened, Endangered, and Rare species within the area. To round out your review, please use the Rare, Threatened, and Endangered Species of Texas by County application found here. For questions regarding the application, please contact Amy Turner at Amy.Turner@tpwd.texas.gov or by calling her directly at (361) 576-0022 x223.

- If your project area is in **Travis, Williamson, or Bexar county**, it is highly recommended that you download the GIS shapefiles for the Karst Zones from the USFWS website (http://www.fws.gov/southwest/es/austintexas/) and/or contact Jenny Wilson (USFWS) at (512) 490-0057 x231 for a review of the project location. All three counties are known to have multiple important karst features.
- If your information request includes one or more records for **Bald Eagle** or **colonial waterbirds**, contact Brent Ortego at brent.ortego@tpwd.texas.gov or (361) 576-0022 for more up-to-date information on the these taxa.
- **For communication towers**: In addition to the USFWS guidelines in the attachment and the links at towerkill.com, there is research identifying a simple way to reduce bird strike and high bird mortality at towers. Refer to the following article for more information: Gehring J., P. Kerlinger, A.M. Manville II. (2009) Communication towers, lights, and birds: successful methods of reducing the frequency of avian collisions. Ecological Applications: Vol. 19, No. 2, pp. 505-514. (doi: 10.1890/07-1708.1)
- For **wind energy or transmission related projects**: To obtain the Department's guidelines, it is recommended to contact Julie Wicker at julie.wicker@tpwd.texas.gov or (512) 389-4579. In addition, the U.S. Fish and Wildlife Service's Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines and other helpful links and information can be accessed at the following website: http://www.fws.gov/habitatconservation/wind.html.

***Absence of information in an area does not mean absence of occurrence**. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Data from*

the TXNDD do not provide a definitive statement as to the presence, absence, or condition of special species, natural communities, or other significant features within your project area. These data cannot substitute for an on-site evaluation by qualified biologists.

Additional sources of data:
TPWD Annotated County Lists:
http://tpwd.texas.gov/landwater/land/maps/gis/ris/endangered_species/
USFWS Find Endangered Species: http://www.fws.gov/endangered/
USFWS Critical Habitat: http://ecos.fws.gov/crithab/
Ecologically Significant Stream Segments: http://tpwd.texas.gov/gis/data/
Ecologically Significant Stream Segment Information:
http://tpwd.texas.gov/landwater/water/conservation/water_resources/water_quantity/sigsegs/index.phtml

Thank you,

Sandy Birnbaum
Texas Natural Diversity Database manager
Texas Parks & Wildlife Dept.
4200 Smith School Rd.
Austin, TX 78744
Phone: 512-389-8729
Fax: 512-389-4599

Texas Natural Diversity Database information

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From: Sellers, Jason [mailto:Jason.Sellers@jacobs.com]
Sent: Thursday, August 27, 2015 8:05 AM
To: Texas Natural Diversity Database
Cc: Michel, Tracy
Subject: RE: TXNDD Request, US 77 Waxahachie, Texas

Sandy,

Will you please provide the TXNDD data for the Forreston, Boz, and Midlothian quads as well. I neglected to notice that our project area lies within the far southwest corner of the quad. My intent is to make sure there are no EOs within a 1.5-mile buffer and to definitely rule out that the BCV wasn't in that buffer.

Thank you,

Jason Sellers, CWB
Environmental Scientist
Fort Worth, Texas
JACOBS

817-735-6134- Direct
817-735-6000- Front Desk

From: Texas Natural Diversity Database [mailto:TexasNatural.DiversityDatabase@tpwd.texas.gov]
Sent: Wednesday, August 26, 2015 4:43 PM
To: Sellers, Jason
Cc: Michel, Tracy
Subject: RE: TXNDD Request, US 77 Waxahachie, Texas

Dear Jason,

Please note that the TXNDD does not currently have any records for your area of interest. This should not be interpreted as an absence of rare or endangered species in the area. For a variety of reasons, we do not have data on every rare species in every part of the state. Please see the document 'shapefile_data_interpretation.doc' in the attached documentation for information on how to interpret TXNDD data (or the lack thereof). There were, however, records for the surrounding quads, and so I am including the EO list in the attached folder.

We are no longer providing Managed Area shapefiles and associated Managed Area Reports. To obtain shapefiles for Wildlife Management Areas and State Park Boundaries, please visit the Texas Parks and Wildlife Dept. GIS Data Download page (https://tpwd.texas.gov/gis/data/).

The Texas Natural Diversity Database (**TXNDD**) includes federal and state listed and tracked Threatened, Endangered, and Rare species. The attached .zip file contains documents that will guide you in appropriate use, restrictions, and shapefile interpretation of Texas NDD data as well as a submission form for adding data to the TXNDD. Also included is a shapefile of the Threatened, Endangered and Rare species element occurrences made from information the TXNDD has available presently for the requested quad(s) (or within the requested county if applicable) along with a companion EO **report**. Areas where EO data are absent **do not mean** absence of occurrence for Threatened, Endangered, and Rare species. If applicable, included is an **EO List** of the Threatened, Endangered and Rare species element occurrences that are on the quads adjacent to your request area. The **EO List** is to inform you of other potential federal and state listed and tracked Threatened, Endangered, and Rare species within the area. To round out your review, please use the Rare, Threatened, and Endangered Species of Texas by County application found here. For questions regarding the application, please contact Amy Turner at Amy.Turner@tpwd.texas.gov or by calling her directly at (361) 576-0022 x223.

- If your project area is in **Travis, Williamson, or Bexar county**, it is highly recommended that you download the GIS shapefiles for the Karst Zones from the USFWS website (http://www.fws.gov/southwest/es/austintexas/) and/or contact Jenny Wilson (USFWS) at (512) 490-0057 x231 for a review of the project location. All three counties are known to have multiple important karst features.
- If your information request includes one or more records for **Bald Eagle** or **colonial waterbirds**, contact Brent Ortego at brent.ortego@tpwd.texas.gov or (361) 576-0022 for more up-to-date information on the these taxa.
- **For communication towers**: In addition to the USFWS guidelines in the attachment and the links at towerkill.com, there is research identifying a simple way to reduce bird strike and high bird mortality at towers. Refer to the following article for more information: Gehring J., P. Kerlinger, A.M. Manville II. (2009) Communication towers, lights, and birds: successful methods of reducing the frequency of avian collisions. Ecological Applications: Vol. 19, No. 2, pp. 505-514. (doi: 10.1890/07-1708.1)
- For **wind energy or transmission related projects**: To obtain the Department's guidelines, it is recommended to contact Julie Wicker at julie.wicker@tpwd.texas.gov or (512) 389-4579. In addition, the U.S. Fish and Wildlife Service's Interim Guidance on Avoiding and Minimizing Wildlife Impacts from Wind Turbines and other helpful links and information can be accessed at the following website: http://www.fws.gov/habitatconservation/wind.html.

***Absence of information in an area does not mean absence of occurrence**. Given the small proportion of public versus private land in Texas, the TXNDD does not include a representative inventory of rare resources in the state. Data from the TXNDD do not provide a definitive statement as to the presence, absence, or condition of special species, natural*

communities, or other significant features within your project area. These data cannot substitute for an on-site evaluation by qualified biologists.

Additional sources of data:
TPWD Annotated County Lists:
http://tpwd.texas.gov/landwater/land/maps/gis/ris/endangered_species/
USFWS Find Endangered Species: http://www.fws.gov/endangered/
USFWS Critical Habitat: http://ecos.fws.gov/crithab/
Ecologically Significant Stream Segments: http://tpwd.texas.gov/gis/data/
Ecologically Significant Stream Segment Information:
http://tpwd.texas.gov/landwater/water/conservation/water_resources/water_quantity/sigsegs/index.phtml

Thank you,

Sandy Birnbaum
Texas Natural Diversity Database manager
Texas Parks & Wildlife Dept.
4200 Smith School Rd.
Austin, TX 78744
Phone: 512-389-8729
Fax: 512-389-4599

Texas Natural Diversity Database information

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From: Sellers, Jason [mailto:Jason.Sellers@jacobs.com]
Sent: Friday, August 21, 2015 7:15 AM
To: Texas Natural Diversity Database
Cc: Michel, Tracy
Subject: TXNDD Request, US 77 Waxahachie, Texas

I am requesting TXNDD information for an Environmental Assessment on a project that we are currently working on. The project is an expansion of US Highway 77 that is located in Ellis County. The project is located in the USGS Waxahachie Quadrangle. I have attached the shape file that can be used in ArcGIS for your reference as well as an aerial exhibit of the project area.

Please send the information to Jason.Sellers@jacobs.com
If you have any questions, please feel free to contact me at 817-735-6134.

Thank You,

Jason Sellers, CWB

Environmental Scientist
Fort Worth, Texas
JACOBS
817-735-6134- Direct
817-735-6000- Front Desk

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Appendix H – Section 4(f) Documentation

Documentation for a 4(f) *de minimis* Impact Determination:

The Waxahachie Hike and Bike Trail

Name: Proposed US 77 Improvements Project

Limits: South of FM 66 to North of McMillan Street

Waxahachie, Texas County: Ellis County, Texas

CSJ: 0048-03-050 & 0048-03-055

1) **Project Description:**

The Texas Department of Transportation (TxDOT) proposes to demolish and re-build the existing, US 77 viaduct and construct two new one-way parallel viaducts on US 77 in Ellis County. The purpose of this project is to provide improved mobility through downtown Waxahachie, Texas. The existing US 77 viaduct is considered a historic structure; therefore, it currently has a 4(f) for those activities associated with the demolition and re-build. The current viaduct is a raised structure with The Waxahachie Hike and Bike Trail running approximately 30 feet underneath it.

The trail will be re-routed during construction. The viaduct improvements will result in a slight re-alignment (from curved to straight) of approximately 175 feet of sidewalk and removal of a few mature woody trees. The proposed project is not expected to permanently incorporate parkland, which is located underneath the proposed viaduct. This letter is to acknowledge that a second 4(f) *de minimis* impact determination is needed for the hike and bike trail under the viaduct, because the activities are within the determination of “No Effects” and qualify for a Section 4(f) *de minimis*.

2) Section 4(f) Property "Use" Definition:

The construction activities at the Waxahachie Hike and Bike Trail fit the definition of "use" because the following condition exists:

- The land is permanently incorporated into a transportation facility. The US 77 ROW requires land from a Section 4(f) property that is either purchased outright as transportation right-of-way or when the applicant for Federal-aid funds has acquired a property interest that allows permanent access onto the property such as a permanent easement for maintenance or other transportation-related purpose.

The following reasons account for the *de minimis* impact determination:

- The scope of work is minor – trail re-alignment is a minor portion of the project construction;
- There are no temporary or permanent adverse changes to the activities, features, or attributes of the property – trail re-alignment will not alter the ultimate use of the facilities in the Waxahachie Hike and Bike Trail;
- The land will be replanted with a high quality seed mix, and will be fully restored to a condition at least as good as prior to the project. Some trees will be removed for the trail re-alignment, but they will be replaced with approved trees in the required mitigation ratio;
- There is documented agreement with the Official with the City of Waxahacie.

Exhibit 1: Project Location Map

Legend

US 77 Project Limits

US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

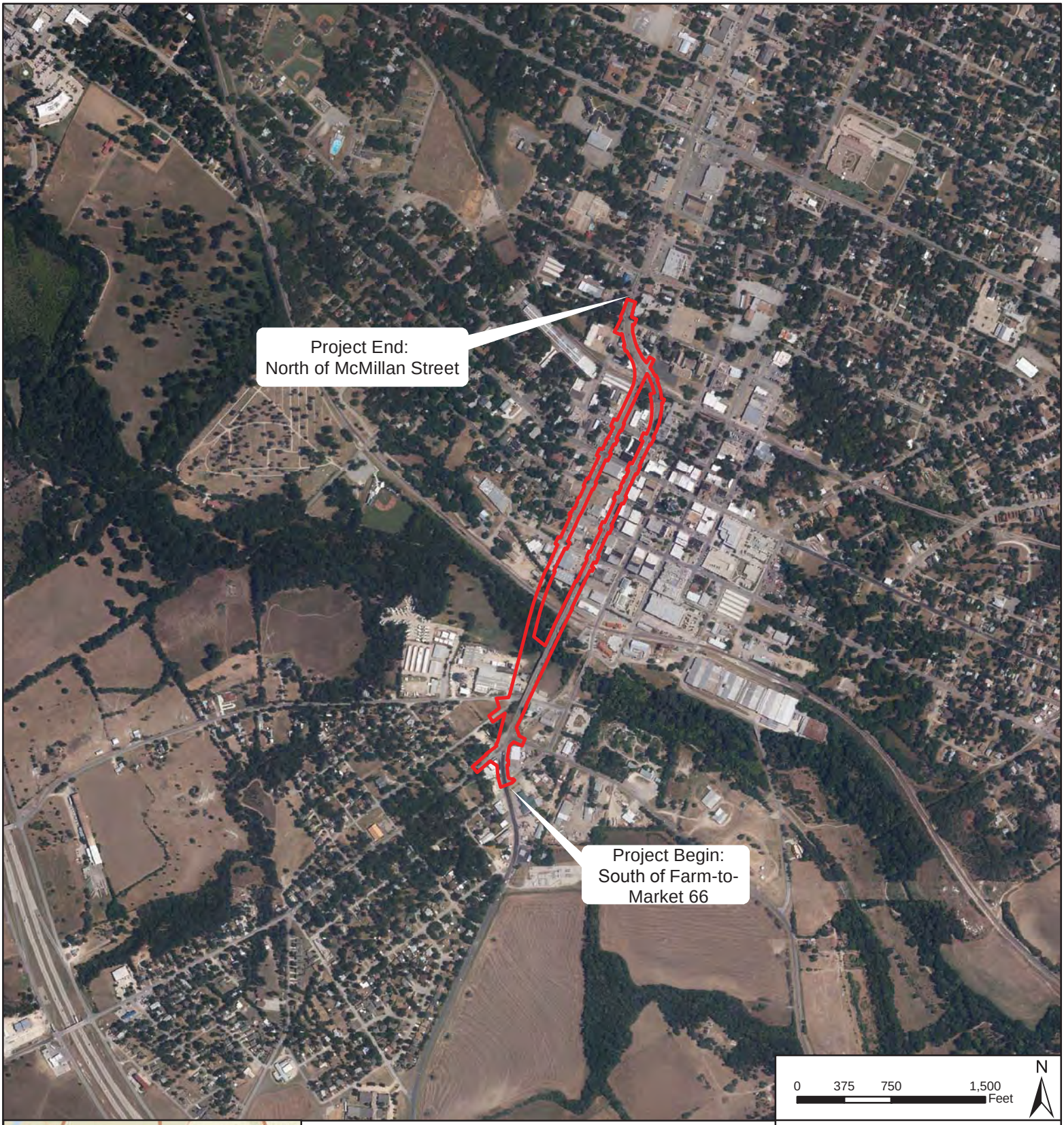
Exhibit 1: Project Location

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)

Exhibit 2: Project Aerial Map



0 375 750 1,500 Feet

N

Legend

US 77 Project Limits

US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

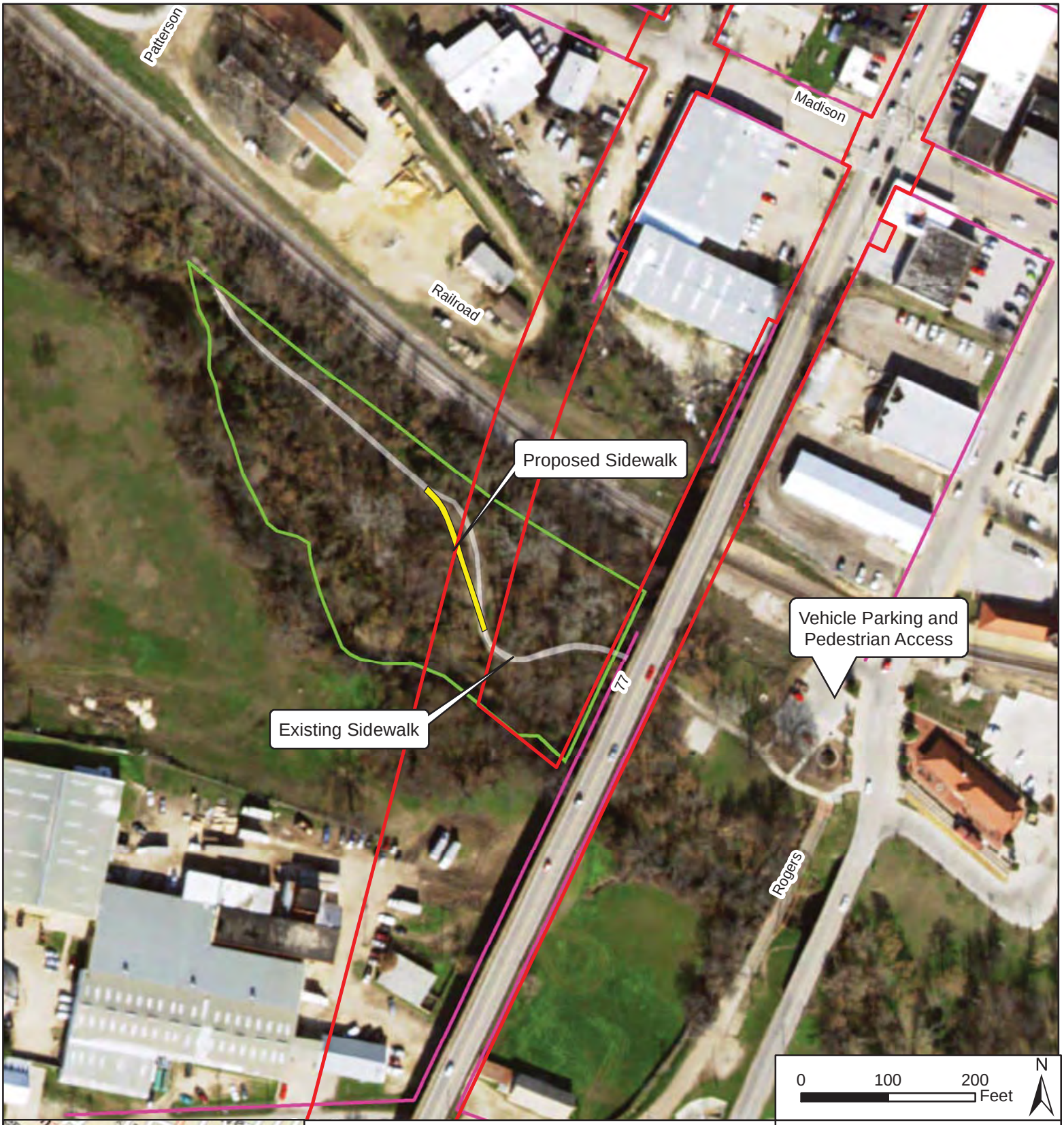
Exhibit 2:
Aerial Photograph Map

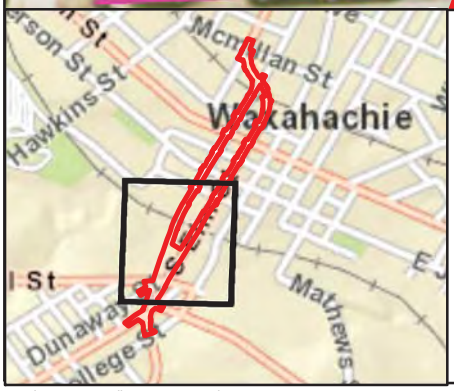
Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)

Exhibit 3: Project ROW, Access Points, and Planned Facilities





Legend

- US 77 Project Limits
- Proposed Sidewalk
- Existing Sidewalk
- City of Waxahachie Boundaries
- Existing ROW

US 77 Improvements Project

(South of Farm-to-Market 66 to North of McMillan Street)
Waxahachie, Ellis County, Texas

Exhibit 3: Section 4(f)
Waxahachie Hike and Bike Trail

Texas Department of Transportation

TXDOT CSJs:
0048-03-050 &
0048-03-055

Service Layer Credits: Sources: Esri, DeLorme, NAVTEQ, USGS, NRCAN, METI, iPC, TomTom
Source: Jacobs Project Team (2016)

Appendix I – Comment and Response Matrix from Public Meeting

#	Last Name	First Name	Date	Source	Comment (verbatim)	Response
1	Carey	Rex	2/16/2016	Comment Form	Would like to suggest walkways/steps/ramp installation from the foot path near the viaduct to walkways on both sides down to or near the mitigation exhibit. This was discussed as a possibility during one of the initial meetings at City Hall in Waxahachie.	Providing safe, continuous pedestrian access is a project requirement. Providing a mountable sidewalk for combined pedestrian and vehicular traffic is not permitted by the design criteria. The proposed project mitigation does include walkways that connect to an existing sidewalk on College Street.
2	Vineyard	Harold	2/16/2016	Comment Form	I am Harold Vineyard with NAPA auto parts. We are on block 58 at corner of 209 Main and Elm 100 blk. We have entry into our parking from 100 East Elm. We would like to be able to continue entering our parking lot from Elm as well as Main.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase.
3	Chapman	Melissa	2/16/2016	Comment Form	Future meetings would be greatly enhanced by having an actual "meeting." Not everyone is familiar with the work to date. An initial presentation, going over what the project covers, what decisions have been made, what is pending, and what the time table is for completion. Then explain what information is here to review for more specific information. That would be a true community meeting. This is a "check the box" that TxDOT showed up and was available to answer questions. Please come back and do better!	The next meeting will be a Public Hearing, tentatively scheduled for late 2016. The meeting will consist of a formal presentation of the preliminary layout and a public testimony session. The public will be encouraged to submit both verbal and written comments for consideration.
4	Sias	Andy	2/16/2016	Comment Form	I would like to see some preservation of the original bridge whether the existing railing is mimicked through-out the entire length or along the ends. Also lighting should reflect a historical "feel" and somewhat match the fixtures in downtown. - Please do not install standard TxDOT lights. This is our downtown and a gateway into our history. Thanks.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
5	Walker	Suzanne	2/16/2016	Comment Form	I will be sad to see the old bridge go, but I understand it cannot be fixed or saved. In the tearing down I would like to see more of the old bridge used in pockets i the landscape areas of the new bridge and other areas.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. Landscaping is included in the proposed mitigation exhibit on College Street. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.

#	Last Name	First Name	Date	Source	Comment (verbatim)	Response
6	Hunt	Lance	2/16/2016	Comment Form	39 - Requesting sole driveway from 77/Elm. It is IMPERATIVE I have access to the front of my building from 77 NB/Elm St. I operate my business from this location and have to have access to my garage door facing 77 NB/Elm St. Denying access/entry/driveway to the front of my building will affect my production.Madison entry only will not work due to the amount of access I have to have daily to that part of my property. 6 vehicles plus turning trucks and trailers around.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings will be considered in this phase.
7	Brown	Nelda	2/16/2016	Comment Form	#33 - 3 bay doors on the back of the building - must be able to access all. 1) 16 ft gate to enter area behind building must be able to back in 30 foot gooseneck trailer. Must be able to back in all bay doors to unload and load furniture. Vendor parking is around back and side of building and on the side of the building. Trash dumpsters are located on back of the building must remain behing bldg.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. If a build alternative is approved in the NEPA document, the right-of-way acquisition process will address the impacts of the permanent construction on the adjacent properties. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.
8	Frisbee Jr.	Don	2/16/2016	Comment Form	As the owner of two businesses on Monroe Street I am concerned about the lack of parking in front of Lot 38 and Lot 44. By looking at the proposed plan there should be room to park on the east side of the street between the roadway and the sidewalk.	Impacts to parking would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding parking would be considered in this phase. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.
9	Autrey	Dusty	2/16/2016	Comment Form	Prop #51 - Please consider widening driveway to the maximum width allowed (40-45 feet), if not I lose 6 parking spaces. Prop #48 - We need driveway access from HWY 77 for access to outside storage and ability to drive through with a trailer; this negatively affects the use of my building.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. If a build alternative is approved in the NEPA document, the right-of-way acquisition process will address the impacts of the permanent construction on the adjacent properties. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.
10	Harrington	Olivia	2/16/2016	Comment Form	Copy of map to study at home.	Design of the preliminary layout is underway, but there are not final plans available at this time. The Commenter may contact Ms. Denise Lunski at the TxDOT District Office (4777 East Highway 80, Mesquite, Texas, 75150, 214.320.6100) to set up an appointment to view the in-progress preliminary layout.
11	Frisbee	Mike	2/16/2016	Comment Form	We are concerned with the lack of street parking on Monroe St in front of Lots #38 & 44. In previous meetings we had discussed the possibility of leaving the ability to park in front of our two businesses. In past drawings there was allowances for parking per our discussion.	Impacts to parking would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding parking would be considered in this phase. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.
12	Poarch	Jimmy	2/16/2016	Comment Form	(Building 59) 401 W. Main St. The plans have the east entrance to the (rear) car bay completely blocked. The entire access to the east side of the property is critical to the success of the business!	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase.

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13	Almany	Shirley	2/16/2016	Comment Form	Talked to Ashley Chronister. The main problem I have is the sidewalk. I need an opening where you have the sidewalk, a large entrance driveway on the front of property. Otherwise you are shutting my business off.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase.
14	Sullivan	Gloria	2/16/2016	Comment Form	Parcel #74 - 300 Monroe - Mini Warehouse - not enough space to turn into existing drive for trucks, etc. from drive in provided by TxDOT. Parcel #86 - 34 Ferris - access to Ferris Ave. as well as McMillan Street entrance. I could suffer monetarily from the project.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase.
15	Hamilton	Arlene	2/16/2016	Comment Form	Save more of the bridge for display on the exhibit site! Need more lights. Need good/safe walking access to the south side of downtown - across the creek.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
16	Kaufmann	Becky	2/16/2016	Comment Form	Mitigation - We really need to add more pieces of the old railings, etc.! We want to save as much of our historic bridge as we can - there are some very important corner pieces - or connecting pieces that might be work into the design - Stephen has gotten a good start - but much more can be used.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
17	Pearman	Mike	2/16/2016	Comment Form	We have 18 wheel trucks in and out of parking lot and you are cutting it down to one entrance. It needs to have at least 2 and probably 3 to accommodate the truck access. Putting a curb in front of our property takes away all of our employee parking. Propane tank will have to be moved due to easement on new drawings.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. If a build alternative is approved in the NEPA document, the right-of-way acquisition process will address the impacts of the permanent construction on the adjacent properties. Compensation will be provided to the land owner for relocating or replacing structures located in the right of way to be acquired. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.

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18	Lewis	David	2/16/2016	Comment Form	Please save the historical placques on the viaduct for historical purposes. At one time I believe there was more than 1 (one)!	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
19	Bates	Floyd and Eldonna	2/16/2016	Comment Form	Property #72 & #73, 1) No property access to my property of for parking. 2) Taking 50% of my parking. 3) Cutting off my awning in front of my property. 4) My property is a historic building, over 100 years old. 5) Traffic vibration is going to vibrate my 100 year old foundation. 6) Traffic noise increase and causes a safety issue for my antique business. 7) Our antique business will be greatly affected. 8) sanitary sewer already bad this will be worse now. Business name is Klassy Klutter Antiques.	TxDOT makes the following responses: 1) Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. 2) Each comment with concerns regarding parking would be considered in this phase. Loss of parking spaces will also be assessed and compensated for in accordance with State laws. 3) Compensation will be provided to the land owner for relocating or replacing structures located in the right of way to be acquired. 4) During construction, TxDOT will work with city and property owners to reduce impacts to their businesses. 5) And 6) A Traffic analysis with associated impacts will be conducted during the NEPA process. 7) And 8) During construction, TxDOT will work with city and property owners to reduce impacts to their businesses.
20	Hamilton	John	2/16/2016	Comment Form	As long as people are given reasonable curb cuts it looks good to me. Since this should increase property values those losing property should share in that benefit. It's unfair that everyone else profit but they don't. I'm retired and have no property but our home on West Marvin. I do participate with the City and have a strong interest in the well being of downtown.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. If a build alternative is approved in the NEPA document, the right-of-way acquisition process will address the impacts of the permanent construction on the adjacent properties. Compensation will be provided to the land owner for relocating or replacing signs located in the right of way to be acquired. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.
21	Getzendauer Jr.,	William	2/16/2016	Comment Form	Water drainage on Main and Elm #63. Garage door alignment on #67, Phillips Garage #67, Tire Town #67, #54 Entrance to Parking Lot.	Final design will ensure that drainage for the project area does not negatively impact adjacent streets and properties. Final driveway alignment will be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding alignments would be considered in this phase.
22	Stones	Rocky	2/16/2016	Comment Form	I own Parcel #68 on schematic - I don't have a curb cut on current plan. I can live with 1 cut as depicted on attached aerial. Note dumpsters on aerial (Aerial map attached to comment form).	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. The location of dumpsters will also be considered in this phase.

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23	Hargrove	Craig	2/16/2016	Comment Form	I think the project is great and long overdue. If we could retain as much of the original railing from the old bridge, it could probably be used for historical purposes.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
24	Napps	Janet	2/16/2016	Comment Form	H & H Grocery - Concern with parking at front of store and closing off of right driveway and our business is so close to the front of store. My concern is our business hurt because of construction. My convenience store will no longer be a convenience to my customers but an inconvenience. My parking lot is no longer going to be there.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. If a build alternative is approved in the NEPA document, the right-of-way acquisition process will address the impacts of the permanent construction on the adjacent properties. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.
25	Cox	Misty	2/16/2016	Comment Form	Property 80, 81 L&M Muffler Shop, Inc. You cannot access our business from the southbound lane of Hwy 77. It would be more beneficial to add a second driveway (or 2nd choice move the current driveway) further north, so that both lanes of traffic can access the business. A drive should be centered between the 2 lifts so that cars/trucks can be pulled into all bays and lifts. If there is no center entrance, the northbound traffic would have to turn on back roads to access the property (Left on McMillan St., then Right on Monroe St., then right into shop.) This would cut down on the profit of the business. The drive between properties 80 & 84 needs to remain in place in order to access the back side of Lot 80 for storage and the parking and driveway for Lot 81.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. If a build alternative is approved in the NEPA document, the right-of-way acquisition process will address the impacts of the permanent construction on the adjacent properties. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.
26	Heath Gardner	Joel	2/16/2016	Comment Form	Property 80 L&M Muffler Shop, Inc. You cannot access our business from the Southbound lane be the Y or split in the road on HWY 77. It would be more beneficial to add a 2nd driveway. Further North were it's a wider driveway. In the middleof the business. Where Southbound traffic can turn into our Business. And Northbound traffic could also have access. Property 81 entrance you cannot access our property to L&M Muffler Shop because there is a retainer wall.	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. If a build alternative is approved in the NEPA document, the right-of-way acquisition process will address the impacts of the permanent construction on the adjacent properties. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.

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27	Pruitt	Kirk	2/16/2016	Comment Form	Please have the engineer provide the acreage of my property that will be taken and how much acreage will remain from the project improvements to US 77.	TxDOT ROW acquisition staff would contact the property owner to initiate TxDOT's Right-of-Way Acquisition and Relocation Assistance Program. Then, the TxDOT ROW acquisition staff would determine how much of the parcel(s) would be required for the proposed improvements based on the approved ROW map. TxDOT will appraise the property and fair market value will be offered to the landowner for any land and improvements needed for ROW. Additionally, damages to the remaining property (if any) will also be appraised and offered. The TxDOT Right-of-Way Acquisition and Relocation Assistance Program would be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970 as amended, the Civil Rights Act of 1964, and the Urban Development Act of 1974.
28	Bowen	Kathleen	2/16/2016	Comment Form	As a resident of W. Jefferson St. I have witnessed many accidents from people trying to cross Monroe. I urge you to consider putting lights - not only northbound, but also southbound. Also please consider pedestrian traffic as a priority. Many people walk from our area to downtown. As our city continues to grow, having viable and safe pedestrian walkways will be very important. Ensuring that the historic value of the viaduct is retained is also important. If you can't easily remove the concrete for the small park area, perhaps you can recreate it. I would also love to see an amphitheater included in the plans. Thank you!	Final location of traffic lights would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable traffic and design criteria. Providing safe, continuous pedestrian access is a project requirement. The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. An amphitheater is not included in the proposed mitigation exhibit. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionamight be saved in the future through careful study of photography and related artifacts. Respectfully presented, Larry Feltyiling because of the deteriorated condition of the historic viaduct ra
29	Smith	Pat	2/24/2016	email	I am greatly concerned about the upcoming mitigation proposal for the historic bridge in Waxahachie Texas. The bridge has been such a major part of my personal life and although I can hardly stand to see it gone I definitely think that we should make something beautiful and historical and important to take its place in our treasured town. There are many suggestions being offered by citizens here and I really hope the TxDOT will take a little more time and consideration in this very important project.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.

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30	Smith	David	2/24/2016	email	As a home owner and downtown business owner in Waxahachie I want to voice my disapproval of the current TxDOT proposal for mitigation proposal for the Waxahachie bridge. It seems too insignificant and not commensurate with the value of the historical bridge. We need to come up with a better solution and there are many suggestions available from the town people here. I am willing to help in this project.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
31	Camp	Cindy	2/16/2016	Comment Form	At the corner of Monroe and West Madison Street the new bridge entrance will cause my tenant to lose the entrance to his secured area and garage. My tenant will have no choice but to move because of the size of their vehicles. It will cause me financial stress. Please meet with me about this issue. Cindy Camp 214-289-3842 cindycamp@me.com	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. If a build alternative is approved in the NEPA document, the right-of-way acquisition process will address the impacts of the permanent construction on the adjacent properties. Loss of parking spaces will also be assessed and compensated for in accordance with State laws.The Commenter may contact Ms. Denise Lunski at the TxDOT District Office (4777 East Highway 80, Mesquite, Texas, 75150, 214.320.6100) to set up a meeting to discuss concerns about the proposed project.
32	Forkowitz	Carole	2/24/2016	email	I feel the proposed mitigation offered for the lose of the old viaduct is inadequate. It is important to use as long time residents that the character of the town be preserved as we grow. I support the position of the Historic Waxahachie in this matter.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.

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33	Felty	Larry	2/25/2016	email	Dear Denise, It is obvious that the TxDOT committee has spent a great deal of time thinking about how to best reach a decision on mitigation for the loss of our historic bridge. One solution that I believe will benefit both local residents and visitors to our city would be the funding of an elevator for the Ellis County Museum. With the elevator, access to the second and third floor would be possible for all. With that access one of the rooms upstairs could be converted into a showcase for the history of the county concerning transportation, not only bridges and roadways but also railways. Other rooms could possibly be display areas for the history of architecture, commercial, governmental, and residential. We have lost many wonderful examples of historic structures but recently some of those such as our much admired courthouse have been saved through careful restoration. I realize that our historic bridge, because of serious deterioration, cannot be saved, however, with this form of mitigation many things might be saved in the future through careful study of photography and related artifacts. Respectfully presented, Larry Felty	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
34	Webb	Julie	2/25/2016	email	Hi Denise, I have met you in past meetings and I was out of town for the community meeting to see you once again. There is an email discussion going on in Waxahachie with historic Waxahachie members. I wanted to give you my thoughts I sent to them for you knowledge and consideration. I do appreciate all of your and your TXDot folks work on this project and your sensitivity to the project. Please feel free to contact me if you have further thoughts or questions or if I can be of assistance. - julie webb Here is my letter: I really don't get the mitigation funds for the park which I don't see the use other than historic transportation mode images and info of the past bridge. As someone who travels a lot and visits many town, this is limited use and primarily for visitors. What about the citizens? My wish is that the mitigation funds stretch to help fund the plan of the sloped amphitheater and extra funds to make the new bridge special with great lights which do not shine in the sky and perhaps embellishments omight be saved in the future through careful study of photography and related artifacts. Respectfully presented, Larry Feltyiling because of the deteriorated condition of the historic viaduct railing. A plaza and seating is not included in the proposed mitigation. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. An amphitheater and seating is not included in the proposed mitigation exhibit. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.

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35	Mottla	Anthony	2/25/2016	email	Julie, I really like your comments about incorporating elements of the viaduct into whatever this park will ultimately be. Although the renderings from TXDOT that Anita sent are preliminary; they still feel like a quick, out-of-the-box approach: A sidewalk, a few lights, some flowers- and almost as an afterthought, a disparate hunk of bridge. If this Mitigation will not fund the Amphitheater, then your suggestions regarding securing additional funds to enhance the new viaduct with the elements that you mentioned, are right on-point. With some additional development, the lighting in this park could be enhanced and installed atop cut portions of viaduct supports, plantings moved to the perimeter and a more defined enclosure could be created by means of using additional guardrail sections - creating greater visual continuity as well leaving the opportunity for a central area that would be for people and not plantings. This proposed corner though, as David Hudgins noted, doesn't provide much of a view of anything. Even if seating were provided, I'm not if anyone would really want to hang-out next to Rogers street with a steady stream of vehicles whizzing-by. Consequently, maybe relocating the entire design to the other end of College street would be worth looking-at by the designers. With this relocation, not only would it be a more scenic and quieter location; but it would then be adjacent to the future extension of the MKT trail and could be easily be connected back to the east side of the MKT Depot along College Street. Just my two cents... -Anthony Mottla Architects, Inc. 308 East Marvin Avenue Waxahachie, Texas 75165	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. The proposed mitigation site is located east of College Street across from the train station and does not include an enclosure. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
36	Spalding Crabtree	Peggy	2/25/2016	email	Dear Ms. Lunski, After reviewing the mitigation plan for the Elm Street Viadut replacement in Waxahachie, I would like to compliment you on the style while also expressing my disappointment in the scale of the project. With the historic Viaduct's demolition our city is forever losing a huge piece of its unique architectural fabric. The scope of the mitigation should therefore be more proportionate to the magnitude of our loss. I would like to see a larger, more inviting plaza with additional elements of the historic Viaduct included. More seating and lighting would make this location a destination for visitors and locals to use and enjoy. Minimally the design should be laid out with the possibility for future expansion using locally generated funds incorporated into the plan. Sincerely, Peggy Spalding Crabtree, Save the Viaduct co-chair 972-938-7345	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. Seating is not included in the proposed mitigation exhibit. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.

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37	Crum	Janet	2/16/2016	Comment Form	The Viaduct is a representative symbol of Waxahachie history in the Ellis County Courthouse Historic District. It's strong presence reverberates in all directions from its location. The proposed mitigation, while pleasant enough seems to me to be a bland and ordinary reminder of what we are losing. The directed lighting is a plus. I would encourage the use of Texas native plants in the landscaping. Incorporating as much of the demolished bridge in the setting for future use would be fitting if possible. More heartfelt and creative thinking is called for in this project. I appreciate the opportunity to offer input and am thankful for the efforts being made to mitigate this emblamatic loss to the citizens and fabric of Waxahachie.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
38	Chapman	Jerry	2/16/2016	Comment Form	Ms. Lunski, I appreciate you taking comments on our Viaduct. Waxahachie very much hates to lose our Viaduct. Our city is known to spend more money to maintain a historic structure rather thank remodel or build new ones. I know TxDOT understands our concern. I truly hope the propoed mitigation will be as first class as the viaduct was when constructed; i.e. large enough for a venue, lighting, pictures of the viaduct (see cabose pictures), and a large public restroom. Waxahachie knows we must move forward in many steps of growth but we always consider our history. Thank you for your time, planning, and money for the project.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. A public restroom is not included as part of the proposed mitigation exhibit. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
39	Colwell	John	2/16/2016	Comment Form	I have numerous concerns regarding to the changes proposed by TxDOT that affects my location at 100 S. Elm Street and the corner of West Main Street in Waxahachie, TX. First of all, changing the street to one way heading North in front of my store will kill my business. I will lose all of my southbound customers overnight. Secondly, it's extremely difficult and next to impossible for my customers to exit back onto West Main. The property is so close to the traffic light that if two vehicles are stopped at the light next to our store on Main you cannot exit the property. Third, with my property bieng so small it is already hard for vehicles to maneuver in, out and around; adding a curbed sidewalk will make this even more of an impossible task. This location has been a fueling station for decades and our livelihood is being greatly devastated by hindering the movement of vehicles in and out of the property. We have approximately fifteen (15) semi-trucks (18-wheelers) that pull onto our property each week to brimight be saved in the future through careful study of photography and related artifacts. Respectfully presented, Larry Feltyof vehicles whizzing-by. Consequently, maybe relocating the entire design to the other end of College street would be worth looking-at by the designers. With this relocation, not only would it be a more scenic and quieter location; but it would then be adjacent to the future extension of the MKT trail	Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase.

#	Last Name	First Name	Date	Source	Comment (verbatim)	Response
40	Williams	Marla	2/16/2016	Comment Form	Although I agree this area is a traffic issue that needs to be solved, I would like this area of replacement to closely match the historical area. I would like to see more lighting, seating, and a large landscaped plaza. This area will benefit in the coming years with more pedestrian traffic as well as bicycles.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. Seating is not included in the current mitigation exhibit; however a landscaped area is proposed for the mitigation area. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
41	Post	Nancy	2/16/2016	Comment Form	Request extended comment period. Enhancement of the plan needed.	The comment period for the Public Meeting ended on February 26, 2016, per State Law. A Public Hearing will be held for the project in the next few months, which includes a presentation to explain the project design to the public. At the Public Hearing, the public will have the opportunity to make verbal comments that will be included in the final record. The Public Hearing comment period will begin the date of the meeting, and residents and concerned citizens can submit written comments at the meeting or by mail for the following 10 days. The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. A plaza and seating is not included in the proposed mitigation. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.
42	Andrews	Dell	2/16/2016	Comment Form	The project proposed by TxDOT is paltry compensation for the lovely historic bridge. The citizens of Waxahachie should be rewarded with a beautiful and/or useful addition to the City - not a few pictures in a garden that even visitors to the city would ignore. Let's do better for this town that is so proud of its past!	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.

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43	Morton	GT	2/16/2016	Comment Form	1) Down time costing 2) Losing frontage of a business 3) Accessibility to & from 4) Mobility after complete 5) Depreciation of property value 6) Doesn't include property in my way 7) Defacing Old Town of Waxahachie 8) Increase traffic making it a safety problem 9) Safety in entrance and exit to street (This project has been talked about for years. It is not that big of a deal.)	TxDOT proposes the following responses: 1) During construction, TxDOT will work with city and property owners to reduce impacts to their businesses. 2) And 3) Final location of turn lanes and driveways would be determined during the final design phase of project development in coordination with the City of Waxahachie and would be placed in accordance with all applicable design criteria. Each comment with concerns regarding driveway openings would be considered in this phase. 4) And 5) During construction, TxDOT will work with city and property owners to reduce impacts to their businesses. 6) A Traffic analysis with associated impacts will be conducted during the NEPA process. 7) Providing safe, continuous access is a project requirement.
44	Bowen	Mark	2/16/2016	Comment Form	As a member of the Historic Waxahachie, Inc. I want to ensure that we receive adequate compensation for the loss of our historic bridge. We need a project that will have a significant impact for our downtown with a larger, more accomodating plaza, more lighting, and more seating. Also - anything you can do to bring more historic elements from the existing viaduct. We don't want to lose our history. Thank you.	The proposed project includes mitigation for the removal of the original Waxahachie viaduct. Mitigation includes using the existing railing in the mitigation exhibit and installing informational plaques about the viaduct history in the downtown area. Although one piece of the historic viaduct railing will be used in the mitigation exhibit, much of the railing in the mitigation exhibit is new railing because of the deteriorated condition of the historic viaduct railing. A plaza and seating is not included in the proposed mitigation. In previous stakeholder meetings, a commitment was made requiring that the lighting on the proposed viaducts needs to be directional lighting to reduce light pollution. Additionally, the mitigation for the loss of the historic viaduct will include educational research. This research can be uploaded to a website and shared with local schools and other interested persons.