Draft
Environmental Assessment

State Loop 195

Project Limits from Farm-to-Market Road (FM) 755 to US Highway (US) 83—One Mile NW of the Loma Blanca Intersection

CSJ Numbers: 3632-01-001, 3632-01-002, and 3632-01-003
Starr County, Texas
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Submitted pursuant to 49 U.S.C. 303 and 42 U.S.C. 4321 et seq.

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 9, 2019, and executed by FHWA and TxDOT.

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List of Acronyms

A list of common acronyms used throughout this document and their definitions is provided below.

APE	Area of Potential Effects
AADT	Average Annual Daily Traffic
AOI	Area of Influence
BMP	Best Management Practice
CHC	County Historical Commission
CFR	Code of Federal Regulations
CMEC	Cox|McLain Environmental Consulting, Inc.
CO	Carbon Monoxide
dB(A)	Decibels (A-weighted)
EA	Environmental Assessment
EMST	Ecological Mapping Systems of Texas
EPA	Environmental Protection Agency
EO	Executive Order
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FM	Farm-to-Market Road
FPPA	Farmland Protection Policy Act
ISA	Initial Site Assessment
LEP	Limited English Proficiency
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
MSAT	Mobile Source Air Toxics
NAC	Noise Abatement Criteria
NAFTA	North American Free Trade Agreement
NEPA	National Environmental Policy Act
NOI	Notice of Intent
NRHP	National Register of Historic Places
NWP	Nationwide Permit
PCN	Preconstruction Notification
PM	Particulate Matter
PSL	Project-Specific Location
ROW	Right-of-Way

List of Acronyms (continued)

RSA	Resource Study Area
SAL	State Archeological Landmark
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Officer
SL	State Loop
SW3P	Storm Water Pollution Prevention Plan
TAQA	Traffic Air Quality Analysis
TCEQ	Texas Commission on Environmental Quality
THC	Texas Historical Commission
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TSS	Total Suspended Solids
TWDB	Texas Water Development Board
TxDOT	Texas Department of Transportation
Uniform Act	Uniform Relocation Assistance and Real Properties Acquisition Policies Act of 1970 as amended in the Surface Transportation and Uniform Relocation Assistance Act of 1987
US	U.S. Highway
U.S.	United States of America
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
USFWS	U.S. Fish and Wildlife Service
USIBWC	United States Section, International Boundary and Water Commission
VCM	Voluntary Conservation Measure
vpd	vehicles per day
WOUS	Waters of the U.S.

1.0 Introduction

The Pharr District of the Texas Department of Transportation (TxDOT) proposes to construct a new-location relief route in Starr County between Rio Grande City and Roma. The proposed roadway would extend from Farm-to-Market (FM) 755 to US Highway (US) 83. The EA has been prepared in accordance with the procedural provision of the National Environmental Policy Act (NEPA); the Council on Environmental Quality (CEQ) regulations in *Implementing Procedural Provision of NEPA* (40 CFR Parts 1500-1508) and *Environmental Impact and Related Procedures* (23 CFR Part 771); and Texas Administrative Code (TAC) Title 43, Part 1, Chapter 2, *Environmental Review of Transportation Projects*." 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 (MOU) dated December 9, 2019, and executed by FHWA and TxDOT. The purpose of the EA is to study the potential environmental consequences of the proposed project and determine whether such consequences warrant preparation of an Environmental Impact Statement.

This Environmental Assessment will be made available for public review. Following the comment period, TxDOT will consider any comments submitted. If TxDOT determines that there are no significant adverse effects, a Finding of No Significant Impact will be prepared and signed, which will be made available to the public.

2.0 Project Description

2.1 Existing Facility

The proposed project is a new-location reliever route. FM 755 (the eastern terminus) is a two-lane undivided facility, and US 83 (the western terminus) has two lanes in each direction with a center left-turn lane. The proposed SL 195 project would connect these two existing roadways.

2.2 Proposed Facility

The proposed project would entail the construction of a new-location 4-lane divided highway, connecting FM 755 to US 83, for a distance of approximately 17.24 miles. The project layout is shown in **Appendix A,** and the typical sections are shown in **Appendix D**. The new roadway's typical section would have two 12-foot vehicle travel lanes in each direction and a grassy median; the roadway would expand to include left-turn lanes at the at-grade intersections with existing roadways and at the turn-around locations provided along the alignment. The roadway would have four-foot inside shoulders and 10-foot outside shoulders within a typical 300-foot-wide right-of-way. There would be an overpass approach at the intersection with US 83/Loma Blanca Road. In the areas with future overpasses, the right-of-way would increase to 450 feet wide to accommodate future main lanes over the intersection. The overpass approach at US 83/Loma Blanca Road would have two 12-foot vehicle travel lanes in each direction with 17-foot inside shoulders and 10-foot outside shoulders. The proposed project would also include improvements to FM 3167 and FM 649. At these locations, the cross streets would

be widened to provide a travel lane and left-turn lane in each direction, for a length of 285 feet within the intersection. The proposed project would require approximately 667.01 acres of new right-of-way and would encompass approximately 36.08 acres of existing right-of-way.

Federal regulations require that federally funded transportation projects have logical termini (23 CFR 771.111(f)(1)). Simply stated, this means that a project must have rational beginning and end points. Those end points may not be created simply to avoid proper analysis of environmental impacts. The logical termini for the project are FM 755 and U.S. Highway (US) 83. These termini were chosen to connect two major roadways and the two cities of Rio Grande City and Roma.

Federal regulations require that a project have independent utility and be a reasonable expenditure even if no other transportation improvements are made in the area (23 CFR 771.111 (f)(2)). This means a project must be able to provide benefit by itself, and that the project not compel further expenditures to make the project useful. Stated another way, a project must be able to satisfy its purpose and need with no other projects being built. The proposed project has independent utility and would not preclude other foreseeable transportation improvements within the project area. The project provides congestion relief between two major traffic generation points by constructing a new roadway, which satisfies the project's need, and this would be true even if no other roads were built nearby. Because the project stands alone, it cannot and does not irretrievably commit future federal funds. Federal law prohibits a project from restricting consideration of alternatives for other reasonably foreseeable transportation improvements (23 CFR 771.111(f)(3)). This means that a project must not dictate or restrict any future roadway alternatives. This project has independent utility and would not restrict the consideration of alternatives for other foreseeable transportation improvements.

The proposed project is anticipated to cost approximately $208,925,143, with 80 percent from federal funding and 20 percent from state funding. The proposed project has been added to the 2021 Unified Transportation Plan (UTP), which is approved by the Texas Transportation Commission annually prior to Aug. 31. A copy of the UTP will be provided in the Final EA.

3.0 Purpose and Need

3.1 Need

The SL 195 project is needed to improve mobility within and between the cities of Rio Grande City and Roma by providing an additional access route other than US 83. It would also improve safety by providing a divided roadway between these locations.

3.2 Supporting Facts and/or Data

The population has increased by 5 percent in Roma and 19 percent in Rio Grande City from the year 2000 to 2014 (City Data 2019a, 2019b). The urbanization of the project area as well as the historical increase in commerce related to trade agreements between the U.S. and Mexico have increased the number of large trucks traveling on US 83 and throughout the area and this traffic is projected to continue to increase in the future. In 2007, NAFTA tonnage on Texas highways transported by trucks

was projected to increase by 251 percent by 2030 (TxDOT 2013). Starr County has two international bridge crossings, which are a source of traffic along US 83: the Rio Grande City–Camargo Bridge and the Roma–Ciudad Miguel Alemán Bridge.

Increased population growth has led to an increase in traffic volume in these communities. The proposed roadway would provide additional capacity for traffic traversing the county. Traffic analysis data was provided by TxDOT's Transportation Planning and Programming Division in May 2016 and May 2020. This data depicts the average daily traffic volumes (ADT) projections for 2022 and 2042 along US 83. The proposed facility is expected to accommodate approximately 9,700 vehicles per day (vpd) in 2022, increasing to approximately 12,800 vpd by 2042. This redistribution of traffic is anticipated to reduce traffic on US 83 by as much as 70 percent, depending on the roadway segment (see **Table 1**).

Table 1: Traffic Projections for US 83, With and Without Proposed Project

US 83 Segment Location	ADT in Vehicles Per Day (vpd) in 2022		
	Without SL 195	With SL 195	Percent Reduction with Construction of SL 195
FM 755 to FM 3167	37,220	30,200	-19%
FM 3167 to FM 649	23,770	18,000	-24%
FM 649 to SP 200	24,000	21,500	-10%
SP 200 to Athens St	15,990	12,000	-25%
Athens St to Loma Blanca	11,354	3,400	-70%

Source: TxDOT 2016a, 2020a

In addition to improving mobility, the proposed project would also improve safety. Large truck through-traffic and hazardous materials transports would be more likely to utilize SL 195 and avoid the congestion and signalized intersections along US 83. Additionally, the existing US 83 roadway between Rio Grande City and Roma is primarily a two lane, two way, undivided facility and the proposed SL 195 roadway would be constructed as a divided facility. TxDOT's Crash Record Information System (CRIS) data from 2018 show that crash rates are lowest for divided roadways with four lanes or more (see **Table 2**).

Table 2: 2018 TxDOT Statewide Crash Rates

Road Type	Traffic Crashes per 100 million vehicles miles	
	Rural	Urban
Two-lane, two way	102.13	213.77
Four or more lanes, divided	62.95	158.28

Source: TxDOT 2020b

3.3 Purpose

The purpose of the proposed project is to increase mobility by providing an additional route for traffic traveling through southern Starr County. The project would also provide a safer roadway for the public travelling between Rio Grande City and Roma.

4.0 Alternatives

4.1 Build Alternative

The proposed project would entail the construction of a new-location roadway connecting FM 755 to US 83. The proposed Build Alternative meets the purpose and need by improving mobility and connectivity by providing a new four-lane divided highway between Rio Grande City and Roma. The Build Alternative is the Preferred Alternative. The proposed project is anticipated to cost approximately $208,925,143, with 80 percent from federal funding and 20 percent from state funding.

4.2 No-Build Alternative

The No-Build Alternative represents the case in which the proposed project would not be constructed. Other transportation improvements may or may not be constructed, depending on project development and funding availability issues for each such improvement.

The No-Build Alternative would not improve mobility and safety in the project area. For these reasons, the No-Build Alternative would not satisfy the need and purpose of the proposed project and therefore the Build Alternative is the Preferred Alternative. The No-Build Alternative is carried forward throughout the document as a baseline comparison to the Build Alternative.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

The following three preliminary alternatives were considered but have been eliminated from further consideration (see **Appendix G—Alternatives Analysis** for the alternatives exhibit and matrix):

- Preliminary Build Alternative (Red Route): Would have constructed a new location roadway from approximately 1.25 miles northwest of FM 755 to US 83. The Red Route would have been the most northerly route and would have required approximately 1,884 acres of right-of-way.
- Preliminary Build Alternative (Blue Route): Would have constructed a new roadway from FM 755 to US 83. The Blue Route would have been constructed along a portion of the preferred Build Alternative, although the eastern end would have run further north. The Blue Route would have required approximately 2,100 acres of right-of-way.
- Preliminary Build Alternative (Green Route): Would have constructed a new location roadway from FM 755 to US 83. The Green Route would have been the most southern route and would have required the most right-of-way, approximately 2,244 acres.

The total acreage of each preliminary alternative is inflated compared to the Build Alternative because the corridor widths of the Red, Blue, and Green routes were not refined. These alternatives were eliminated from further study because, compared to the recommended alternative, they would have had greater impacts on adjacent property owners.

5.0 Affected Environment and Environmental Consequences

In support of this EA, the following technical reports were prepared:

- *Community Impacts Assessment Technical Report* (TxDOT 2018a)
- *Archeological Survey of the Proposed US 83 Reliever Route from Roma to Rio Grande City in Starr County Texas* (TxDOT 2006)
- *Report of Historical Studies Survey* (TxDOT 2015a)
- *Water Resources Technical Report* (TxDOT 2017a)
- *Tier 1 Site Assessment Form* (TxDOT 2018b)
- *Biological Evaluation Form* (TxDOT 2018c)
- *Biological Assessment* (TxDOT 2018d)
- *Air Quality Technical Report* (TxDOT 2018e)
- *Hazardous Materials Initial Site Assessment* (TxDOT 2015c)
- *Traffic Noise Technical Report* (TxDOT 2017c)
- *Indirect Impacts Technical Report* (TxDOT 2018f)
- *Cumulative Impacts Technical Report* (TxDOT 2018g)
- *Public Meeting Documentation* (TxDOT 2017d)

The technical reports may be inspected and copied upon request at the TxDOT Pharr District Headquarters.

5.1 Right-of-Way/Displacements

The proposed project would require the acquisition of approximately 667.01 acres of new right-of-way within Starr County; no easements are anticipated at this time. It is expected to require five residential displacements, one commercial displacement, and the displacement of seven other structures that appear to be non-habitable sheds or other outbuildings located adjacent to residences. For the purpose of this assessment, a structure that is expected to be within the proposed right-of-way (wholly or in part) was assumed to be displaced. The displacement information presented is based on the proposed right-of-way line as depicted in **Figure 1** in **Appendix E**.

TxDOT provides relocation resources to all displaced persons without discrimination in a manner consistent with U.S. Department of Transportation policy as mandated by the Uniform Relocation

Assistance and Real Property Acquisition Policies Act of 1970, as amended in the Surface Transportation and Uniform Relocation Assistance Act of 1987 (the Uniform Act). All property owners from whom property is needed are entitled to receive just compensation for their land and property. Just compensation is based upon the fair market value of the property. TxDOT also provides, through its Relocation Assistance Program, payment and services to aid in movement to a new location.

Both the United States and Texas Constitutions provide that no private land may be taken for public purposes without adequate compensation being paid thereof. The TxDOT ROW Acquisition and Relocation Program would be conducted in accordance with the Uniform Act, and relocation resources are available to all residential and business relocatees without discrimination.

With respect to displacements, encroachment-alteration impacts would be driven by the relocations of the structures that would be displaced by the proposed project. Examples of encroachment-alteration impacts due to relocations and displacements include a minor reduction in the supply of affordable housing, changes in residential and commercial property values due to the proposed increase in access and mobility, changes in the local tax base due to the potential displacements, and impacts to the residents (such as potential increased commuting time) who could be displaced by the proposed construction of SL 195. Residential and commercial properties located near SL 195 that are not physically impacted by the proposed project may experience a change in market value, either positive or negative.

Under the No-Build Alternative, SL 195 would not be constructed. No ROW acquisition would be required, and no displacements would occur.

5.2 Land Use

The proposed project area is north of the heavily populated US 83 corridor and traverses largely undeveloped land. A portion of the alignment traverses land within the city limits of Roma, but the remainder of the project area is outside municipal boundaries. Clusters of residential development occur along FM 755, Jesse Warren Drive, Alvarez Road, FM 649, and San Julian Road. The development pattern in these areas is linear, north to south, along the aforementioned roadways. There are few east-west connectors in the project area, although some small subdivisions have been established east and west of these arterials. Few businesses exist in the study area. Colonias (residential communities in unincorporated areas along the Texas–Mexico border that often lack basic infrastructure and public utilities) occur on land adjacent to the proposed roadway. According to a map of known colonia developments in border counties prepared by the Office of the Texas State Attorney General (2015), mapped colonias intersected by the proposed project area include Airport Heights and North Escobares Ranchettes. The Airport Heights colonia is just north of the intersection of Fairground Road and Jesse Warren Drive, and the North Escobares Ranchettes colonia encompasses almost 480 acres near the western project terminus. Note that it appears the Texas State Attorney General has not updated its map since 2015, so it may not reflect the current colonias within the project area.

The proposed project would change approximately 667.01 acres of land to transportation use and would alter the existing land use in the area. The footprint of the proposed project traverses a relatively undeveloped area.

Under the No-Build Alternative, no impacts to land use would occur. Land use in the area would remain undeveloped with limited residential and commercial uses.

5.3 Farmlands

The Farmland Protection Policy Act (FPPA), as detailed in Subtitle I of Title XV of the Agricultural and Food Act of 1981, provides protection to the following: (1) prime farmland, (2) unique farmland, and (3) farmland of local or statewide importance. Transportation projects conducted by a federal agency or with federal agency assistance that irreversibly convert protected farmland (directly or indirectly) to non-agricultural use are required to coordinate with the National Resources Conservation Service under the FPPA.

The proposed project would require new right-of-way and is located in a "non-urbanized area" as designated by the U.S. Census Bureau (U.S. Census Bureau 2010). There are 78.5 acres of prime farmland soils within the proposed right-of-way. The score on Part IV of the FPPA Form SCS-CPA 106 was less than 60. Therefore, coordination with the NRCS is not required.

Under the No-Build Alternative, no impacts to farmland would occur. Undeveloped lands used for agriculture would continue to be used as such.

5.4 Utilities/Emergency Services

The proposed project would require approximately 667.01 acres of new ROW. Implementation of the proposed project would require the relocation and adjustment of utilities such as water lines, sewer lines, gas lines, fiber optic lines, overhead electrical and telephone lines, and other subterranean and aerial utilities. The need for relocation and adjustment of any utilities has been determined during the detailed design phase and coordinated with the affected utility providers to ensure that no substantial interruption of service would take place. The Starr County emergency medical services, Starr County Sheriff's Office, and Roma and Rio Grande City Fire and Police Departments would be notified of the construction start dates and any potential detour routes. Construction activities are not expected to cause any delays or access issues for emergency service vehicles. Construction of the proposed roadway could provide enhanced access and reduced response times for local emergency services.

Construction of the proposed project would be phased in a manner that would allow the existing road system to remain open to traffic during construction of the new roadway and would not require the use of detours. Construction of the project would not prevent access to any adjacent properties, except for short durations (less than one day).

Under the No-Build Alternative, no impacts to utilities/emergency services would occur. Traffic patterns would remain unchanged and no detours would occur.

5.5 Bicycle and Pedestrian Facilities

Currently, no sidewalks or designated bicycle lanes exist along the proposed project limits, as it is a new-location roadway. Bicycle and pedestrian facilities are not proposed as part of the project, although the 10-foot-wide shoulder could be utilized for bicycles.

Under the No-Build Alternative, pedestrians and cyclists would continue to use the existing transportation network as it is currently configured.

5.6 Community Impacts

A *Community Impact Assessment Technical Report* was completed in accordance with TxDOT's *Community Impacts, Environmental Justice, Limited English Proficiency, and Title VI Compliance* guidance (TxDOT 2015b, 2018a). The proposed project begins northeast of Rio Grande City and ends northwest of Roma. Surrounding land use is primarily undeveloped, with sparse, rural residential development near the intersections with FM 755, Jesse Warren Drive, Alvarez Road, FM 649, and San Julian Road. The only distinct neighborhoods identified in the project area are the Alta Vista Village subdivision and the Airport Heights and North Escobares Ranchettes colonias. There are very few businesses. South of the project is US 83 and the United States–Mexico border (Rio Grande).

The proposed project is expected to cause the potential displacement of five single-family residences, one commercial business (a convenience store), and seven other structures (see **Figure 1a–1f** in **Appendix E**). Based on currently available market data, comparable single-family housing for the potential residential displacements appears to be unavailable within area ZIP codes. As mandated by the Uniform Act, as amended in 1987, residential replacement structures must be located in the same types of neighborhoods and be equally accessible to public services and places of employment. If comparable housing is not available at the time of right-of-way acquisition, TxDOT would provide the required housing or, if necessary, provide housing supplement payments in excess of the standard payment limits to ensure that decent, safe, and sanitary dwellings are made available to all eligible persons displaced by the proposed project.

Confirmation that the potential commercial displacement, El Mesquite, is currently open for business could not be obtained. Sufficient commercial properties appear to be available for relocation of this business; however, should the owner choose not to relocate the business, closure of this store is not expected to have a substantial impact on employment or provision of community services. The El Tigre Food Store is located approximately 1.8 miles south of the El Mesquite location, at the intersection of FM 649 and US 83, and is an alternative convenience store for patrons of El Mesquite. The other structures identified as potential displacements appear to be uninhabitable small sheds and other outbuildings associated with residences, and the displacement of these structures is not expected to cause lasting impacts to the community.

The overall impact of the SL 195 roadway is anticipated to result in both positive and negative impacts to community cohesion. The proposed project would have a positive effect on community cohesion by increasing access to educational facilities and the municipal airport. Roadway users would also benefit

from a decrease in traffic on US 83. Residential areas located within the proposed project limits would experience physical separations of varying degrees from neighboring residences as a result of both the physical footprint of the new roadway and the five potential residential displacements. As stated previously, much of the area traversed by the proposed project is undeveloped. The project is not anticipated to impact community cohesion in the Alta Vista Village subdivision or Airport Heights colonia as the proposed SL 195 corridor does not bisect these neighborhoods. The proposed project corridor would traverse the northern portion of the mapped limits of the North Escobares Ranchettes colonia. The proposed project would require the displacement of one residence in this colonia; the residence is located in a relatively isolated setting. This residential displacement in a small colonia has some potential to impact social cohesion in this particular community. However, this displacement is not expected to create a substantial change in cohesion for this community as the proposed project corridor would traverse the northern, undeveloped portion of the mapped limits and would not create a new barrier for existing residents.

The overall impact of the SL 195 roadway is expected to result in both positive and negative impacts to access and travel patterns. Currently, there are very few east-west connectors in Starr County north of US 83. As a result, travel patterns in the project area are very circuitous and almost always require travelling south to US 83 in order to move east or west. The area has few improved roadways, and many roads in the project area are not paved and lack sufficient drainage. The construction of SL 195 would not only relieve through-traffic congestion along US 83 in the region but would also improve access for local residents in the immediate project area. The proposed project would increase connectivity of the surrounding area with area schools and facilities, including the following essential services: Rio Grande City Municipal Airport, Rio Grande City High School, Rafaela T. Barrera Elementary School, Ramiro Barrera Middle School, and Roma Middle and High School. Travel time to some destinations may decrease due to greater connectivity between local roads. It is expected that response times to emergencies by first responders would be reduced.

The proposed route would also provide new access to many parcels that currently have only limited access to the regional transportation network via private roads. Individual property owners often use private dirt roads and trails to access different areas of their property or for travel between properties. The proposed roadway would bisect some of these roads, and the usability of some of these roads would be adversely impacted; however, access to the residences on the properties would be maintained. When traffic is moved off the existing US 83 route and onto the proposed facility, existing businesses may have less customer traffic than they did prior to the construction of the proposed route. It is assumed that all highway-oriented establishments depend on passing traffic to generate customers. However, because almost no businesses are located along the proposed route of SL 195, the businesses located along the existing US 83 corridor would not be substantially impacted as patrons would still depend on these existing commercial businesses for the foreseeable future.

With respect to encroachment-alteration effects to socio-economic resources, indirect impacts would be driven by changes in travel patterns and access associated with the proposed project. The potential

indirect impacts would include improved vehicular access to employment opportunities, markets, goods, services, residential uses, and public facilities due to increased vehicular mobility.

The No-Build Alternative would not result in any improvements to congestion, access, or mobility within the project area. The No-Build Alternative would have no impacts on community cohesion.

5.6.1 Environmental Justice

All census blocks within the project area are considered environmental justice populations because they have high percentages of minority populations (See **Figure 2a–2b** in **Appendix E**). Two of the seven adjacent census block groups have a median income below the U.S. Department of Health and Human Services poverty guideline for a family of four ($26,200).

Although the displacements occur in minority blocks, these impacts are dispersed along the project corridor and are not considered to be disproportionately high and adverse. Four of the 13 potential displacements occur within census block groups containing low-income populations (two residences and two other structures). One potential residential and one other displacement occur within the North Escobares Ranchettes colonia. This colonia is a small percentage of the total project area under analysis; thus, the impacts within the colonia are not considered disproportionate to the rest of the surrounding area. Overall, no disproportionately high or adverse impacts on minority or low-income populations are anticipated as a result of the proposed project. No existing neighborhoods would be divided, and permanent disruptions to normal daily activities are not expected for neighboring communities. Therefore, the requirements of Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, are satisfied.

Under the No-Build Alternative no right-of-way would be required, and no environmental justice impacts would occur. However, the beneficial impacts of the Build Alternative (improved connectivity and mobility, reduced congestion) would not be realized for the community living in the project area. The entire community, including minorities and low-income individuals, could be adversely impacted by the increasing congestion and low mobility in the project area that would occur under the No-Build Alternative.

5.6.2 Limited English Proficiency

Limited English Proficiency (LEP) is defined as persons who speak English “less than very well.” The LEP population within the adjacent census block groups speak Spanish. Project-related materials in English and Spanish have been made available to LEP persons to give them the opportunity to participate in the decision-making process.

Reasonable steps will continue to be taken to ensure that all persons have meaningful access to the programs, services, and information TxDOT provides. Public involvement information and/or materials have been and will continue to be made available in English and Spanish, and a translator (for language or other special communication needs) would be provided upon request. Therefore, the requirements of EO 13166 pertaining to LEP would be satisfied.

5.7 Visual/Aesthetics Impacts

The visual quality assessment is used to determine whether the proposed project would be compatible with the visual character of the setting into which it would be introduced. The impact assessment takes into consideration the fact that existing transportation uses traverse the proposed right-of-way. Visual impacts are discussed in terms of the effects that new physical elements associated with the proposed project would have on landform quality (i.e., the existing natural or man-made landforms) and visual resources (i.e., the physical resources including native vegetation, introduced landscaping, and the built environment that make up the character of the area).

Federal and state regulations require that visual impacts be addressed for Section 106 and Section 4(f) properties. No specific federal or state visual regulatory requirements apply to parkland or to properties that are not designated historic or are not eligible for listing in the National Register of Historic Places (NRHP). Generally, the existing visual and aesthetic qualities of the study area include open pastures, farmland, and residential housing.

Characteristics of the Build Alternative that could have a visual/aesthetic impact on the resource include elevated structures/bridges and other vertical elements such as signs and light standards. Due to the length of the new-location project and the rural setting of the study area, the Build Alternative would have some effect on the existing aesthetic quality of the surrounding area. Visual impacts along the Build Alternative would vary by location. Views both from and of the facility would be greatest at grade-separated locations at water feature crossings. The Build Alternative would visually affect rural single-family homes located along the proposed right-of-way. Other than the grade-separated locations, potential views of the proposed facility would be limited due to the flatness of the study area.

Where reasonable and feasible, mitigation measures would include a minimum of right-of-way clearing, maintaining existing median vegetation, and utilizing a regionally-specific rural seed mix for roadside revegetation.

Under the No-Build Alternative, the viewshed would not be altered by the introduction of a new transportation facility.

5.8 Cultural Resources

Cultural resources is an inclusive term that consists of the subset of historic-age and archeological resources that provide the physical evidence of past human activity and include any prehistoric or historic structure, building, object, archeological site, district (a collection of related structures, buildings, objects and/or archeological sites), landscape or natural features significant to a particular group of people traditionally associated with it, and cemeteries that may have historical, architectural, engineering, archeological or cultural significance. For this project, historic-age resources primarily refer to structures, buildings, objects and potential historic districts that are 45 years of age or older, while archeological resources more specifically refer to sites and districts where remnants of physical evidence (artifacts, features and ecological evidence) of a past culture are present.

For transportation projects such as the proposed SL 195, the project must comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, NEPA, and the Antiquities Code of Texas, and be in accordance with the Advisory Council on Historic Preservation (ACHP) regulations pertaining to the protection of historic properties (36 CFR 800). Historic properties, as defined by the NHPA, are those properties that are included in, or eligible for inclusion in the National Register of Historic Places (NRHP). In addition, the proposed project falls under the purview of the Antiquities Code of Texas due to involving lands owned or controlled by the State of Texas. Compliance is implemented under the First Amended Programmatic Agreement Regarding the Implementation of Transportation Undertakings (PA-TU) between FHWA, the Texas Historical Commission/State Historical Preservation Officer (THC/SHPO), the ACHP, and TxDOT, and in conjunction with Title 13 of the Texas Administrative Code (TAC) 26.15, Memorandum of Understanding (MOU) and Agreement between TxDOT and the THC/SHPO. Pursuant to Stipulation VI "*Undertakings with the Potential to Cause Effects*" of the PA-TU, TxDOT shall make a reasonable and good faith effort to identify and evaluate cultural resources. Review and coordination of this project followed approved procedures for compliance with federal and state laws.

Additionally, TxDOT coordinated with the Comanche Tribe, Tonkawa Tribe, and Apache and the Thlopthlocco Tribal Town regarding cultural and archeological resources that may be impacted as a result of the SL 195 project (see **Appendix F—Agency Coordination**).

5.8.1 Archeology

The current archeological area of potential effects (APE) comprises a total of approximately 736.0 acres, including 36 acres of existing right-of-way. Typical roadway construction would reach depths of 2–4 feet or 0.6–1.2 meters, with deeper impacts for construction of bridge, overpass, and drainage elements.

Archeological studies were conducted in several stages using preliminary versions of the footprint that total 824.5 acres, encompassing the current 736.0-acre APE. Previous cultural resources investigations within the APE by Hicks and Company on behalf of TxDOT in 2006 evaluated 458.9 acres of the overall project area. Hicks conducted the survey under Permit 4199 and assessed 14 sites, including 41SR234, 41SR242, 41SR243, 41SR342, 41SR376-379, 41SR381, 41SR383-386, and 41SR389.

Additional work by SWCA in 2016 and 2018 under Permit 7655 surveyed an additional 276.4 acres to access the potential to affect archeological historic properties (36 CFR Part 800.16(l)) or State Antiquities Landmarks (SALs) (13 TAC 26.12) and documented nine newly recorded sites located within the APE and assessed for listing to the NRHP (36 CFR 60.4) or for designation as a SAL (13 TAC 26.8).

Despite right-of-entry constraints, SWCA conducted a good-faith effort within the 276.4 acres of the APE assessed under permit 7655 to evaluate the potential to affect archeological historic properties (36 CFR Part 800.16(1) or State Antiquities Landmarks (13 TAC 26.12). Based on the results of the

survey, twenty sites (41SR234, 41SR243, 41SR342, 41SR376-379, 41SR381, 41SR383-385, 41SR386, 41SR389, 41SR417-41SR419, 41SR425, 41SR458, 41SR460, and 41SR461) within the APE lack sufficient integrity of location, association, and materials (36CFR60.4) to be able to address important questions of prehistory or history and no further archeological investigations are warranted. Of the remaining three sites, 41SR242 and 41SR459 have undetermined eligibility and warrant avoidance or further investigation, while 41SR462 is considered eligible for listing to the NRHP under Criterion D and will require avoidance or mitigation.

TxDOT conducted the NRHP and SAL testing of 41SR242 under Texas Antiquities Permit 7912 in February and April 2017. The site consists of shallowly buried multi-component prehistoric deposits with a surficial veneer of historic early to mid-twentieth century materials. The site is located on the rolling uplands of the Lower Rio Grande Plains immediately west of Arroyo Quiote.

NRHP testing of 41SR459 under Texas Antiquities Permit 8585 was conducted in October, 2018. The site consists of a shallowly buried to surficial multi-component prehistoric site dating to the Late Archaic to Late Prehistoric periods. In a setting similar as 41SR242, the site is located on the rolling uplands of the Lower Rio Grande Plains immediately east of Arroyo Morenos.

Based on the results of the testing, both sites 41SR242 and 41SR459 were considered eligible for listing in the NRHP (36 CFR 60.4) and designation as SALs (13 TAC 26.8) based on integrity of location, association, and materials to be able to address important questions of prehistory or history (36CFR60.4). Data recovery excavations were recommended and were conducted at both sites from February 17 to March 12, 2020. Data recovery excavations are also recommended for site 41SR462 but are deferred until either landowner agreements pertaining to Deed of Gift for data recovery artifacts (as State Held in Trust Collections) or property acquisition are negotiated.

Access was denied on 19 parcels comprising 89.2 acres across the APE. Further work was recommended by SWCA within these currently inaccessible parcels. TxDOT concurred with this recommendation of additional archeological survey within the 89.2 acres of new right-of-way once additional right-of-entry has been negotiated, pending confirmation by the Pharr District that the 89.2 acres of new right-of-way recommended for survey falls within the 736.0-acre current APE.

As detailed above, permission to conduct archeological investigations was denied by at least one landowner. Thus, as provided under Stipulation IX.B.3 of the PA, this undertaking may proceed with further project development, including completion of the environmental process and right-of-way acquisition without the concurrence of the SHPO. After obtaining access to proposed right-of-way in the parcels designated above, TxDOT will complete the inventory on un-surveyed properties and conclude any additional work that may be required under the terms of the PA and MOU.

Under the Build Alternative, impacts to significant or potentially NRHP/SAL-eligible archeological resources may occur. Thus, further coordination would be required with the State Historic Preservation Office (SHPO). In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area will cease and TxDOT archeological staff will be contacted to

initiate post-review discovery procedures under the provisions of the PA and the Memorandum of Understanding between TxDOT and the THC.

Under the No Build Alternative, no impacts to significant or potentially National Register of Historic Places (NRHP)/SAL-eligible archeological resources would occur.

5.8.2 Historic Properties

Consultation with the SHPO determined that the APE for the proposed project is 300 feet from the proposed right-of-way. A review of the NRHP, the list of SALs, and the list of Recorded Texas Historic Landmarks indicated that one previously identified resource, an NRHP-eligible Texas Centennial highway marker, is located within the APE and is proposed to be relocated. A reconnaissance survey of the historic resources APE was conducted in 2014 (TxDOT 2015b). The survey revealed that there are 21 other historic-age properties within the APE (built prior to 1972). TxDOT historians have determined that none of these properties are eligible for the NRHP. Pursuant to Stipulation VI "Undertakings with Potential to cause Effects" of the Programmatic Agreement among FHWA, TxDOT, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings, TxDOT Historians determined that the proposed project would have no adverse effect to the NRHP-eligible marker.

Under the No Build Alternative, no effects to historic resources would occur and no coordination with SHPO would be required.

5.9 Department of Transportation Act Section 4(f), Land and Water Conservation Fund Act Section 6(f), and Texas Parks and Wildlife Code Chapter 26

The proposed project would not require the use of nor substantially impair the purposes of any publicly owned land from a public park, recreational area, or wildlife or waterfowl refuge lands. The proposed project would not require the acquisition of any land within park areas subject to Section 6(f) of the Department of Transportation Act. Additional archeological survey has been recommended for the proposed project but has not yet been conducted. If any archaeological sites are identified that are eligible for listing on the NRHP, such sites would only be considered a Section 4(f) property if it requires preservation in place. No Section 4(f) properties were identified in surveyed areas. No Chapter 26 properties are present in the project corridor.

Under the No-Build Alternative, there would be no impacts to properties protected by Section 4(f) or Section 6(f).

5.10 Water Resources

The project area is located within the Rio Grande River Basin. In all, 31 single and complete crossings with 36 water features lie within the proposed right-of-way. These water features include 27 ephemeral streams, 4 emergent wetlands, 2 stock tanks, and 3 erosional features. Of these 36 water features, 30 are considered potential waters of the U.S. (WOUS). The WOUS within the proposed right-of-way include all 27 ephemeral streams and 3 of the emergent wetlands. Of the 27 ephemeral streams, 13 were not accessible because of lack of right-of-entry. Of the 4 emergent wetlands, 2 were not

accessible because of lack of right-of-entry. It is possible that these 15 crossings may have adjacent/additional wetlands that would require further delineation once right-of-entry is obtained. All proposed roadway and drainage improvements should be designed in a manner to avoid or minimize impacts to jurisdictional crossings. Table 3 contains a summary of potential waters of the US identified within the project area.

Table 3: Summary of Potential Waters of the U.S. Within the SL 195 Right-of-Way

Single and Complete Crossing #	Type of Aquatic Resource	Proposed Structure	Average OHWM Within Right-of-way (feet)	Potential Water of the U.S.? (Yes/No)	Linear Feet/Acres of Potential Waters of the U.S. Within the Project Right-of-Way	NWP 14 Permit Potentially Required?	PCN Potentially Required?	Floodplains	Mapped as Hydric Soils by NRCS
1	Water 1: Ephemeral stream (Unnamed tributary to Los Olmos Creek)	Bridge	12	Yes	523 ln ft/ 0.15 acre	Yes	No	Yes	No
2	Water 2: Ephemeral stream (Unnamed tributary to Los Olmos Creek)	Bridge	10	Yes	475 ln ft/ 0.11 acre	Yes	No	Yes	No
3	Water 3: Ephemeral stream (Unnamed tributary to Los Olmos Creek)	Culvert	7	Yes	316 ln ft/ 0.05 acre	Yes	Yes	No	No
4	Water 4: Ephemeral stream (Los Olmos Creek)	Bridge	18	Yes	376 ln ft/ 0.15 acre	Yes	No	Yes	Yes

Single and Complete Crossing #	Type of Aquatic Resource	Proposed Structure	Average OHWM Within Right-of-way (feet)	Potential Water of the U.S.? (Yes/No)	Linear Feet/Acres of Potential Waters of the U.S. Within the Project Right-of-Way	NWP 14 Permit Potentially Required?	PCN Potentially Required?	Floodplains	Mapped as Hydric Soils by NRCS
5	Water 5: Ephemeral stream (Unnamed tributary to Los Olmos Creek)	Bridge	9	Yes	338 ln ft/ 0.07 acre	Yes	No	Yes	Yes
6	Water 6: Ephemeral stream (Unnamed tributary to Los Olmos Creek)	Bridge	18	Yes	643 ln ft/ 0.26 acre	Yes	No	Yes	Yes
7	Water 7: Ephemeral stream (Unnamed tributary to Los Olmos Creek)	Bridge	14	Yes	321 ln ft/ 0.101 acre	Yes	No	Yes	Yes
8	Water 8: Ephemeral stream (Unnamed tributary to Los Olmos Creek)	Bridge	6	Yes	334 ln ft/ 0.05 acre	Yes	No	Yes	Yes

Single and Complete Crossing #	Type of Aquatic Resource	Proposed Structure	Average OHWM Within Right-of-way (feet)	Potential Water of the U.S.? (Yes/No)	Linear Feet/Acres of Potential Waters of the U.S. Within the Project Right-of-Way	NWP 14 Permit Potentially Required?	PCN Potentially Required?	Floodplains	Mapped as Hydric Soils by NRCS
	Water 9: Ephemeral stream (Unnamed tributary to Los Olmos Creek)	Bridge	9	Yes	309 ln ft/ 0.06 acre	Yes	No	Yes	Yes
	Wetland 1: Emergent Wetland	Bridge	N/A	Yes	-/ 0.13 acre	Yes	Yes	Yes	Yes
9	Water 10: Ephemeral stream (Unnamed tributary to Rio Grande)	Culvert	12	Yes	494 ln ft/ 0.13 acre	Yes	Yes	No	No
10	Water 11: Ephemeral stream (Unnamed tributary to Rio Grande)*	None	26	Yes	520 ln ft/ 0.31 acre	Yes	Yes	No	No
11	Water 12: Ephemeral stream (Unnamed tributary to Rio Grande)*	Bridge	23	Yes	477 ln ft/ 0.25 acre	Yes	No	Yes	No

Single and Complete Crossing #	Type of Aquatic Resource	Proposed Structure	Average OHWM Within Right-of-way (feet)	Potential Water of the U.S.? (Yes/No)	Linear Feet/Acres of Potential Waters of the U.S. Within the Project Right-of-Way	NWP 14 Permit Potentially Required?	PCN Potentially Required?	Floodplains	Mapped as Hydric Soils by NRCS
12	Wetland 2: Emergent Wetland*	Pipe	N/A	Yes	-/ 0.34 acre	Yes	Yes	No	No
13	Water 13: Ephemeral stream (Arroyo Quiote)	Bridge	9	Yes	444 ln ft/ 0.096 acre	Yes	No	Yes	No
14	Water 14: Ephemeral stream (Unnamed tributary to Arroyo Quiote)*	None	16	Yes	310 ln ft/ 0.12 acre	Yes	Yes	No	No
15	Water 15: Ephemeral stream (Unnamed tributary to Arroyo Quiote)*	None	18	Yes	330 ln ft/ 0.14 acre	Yes	Yes	No	No
16	Water 16: Ephemeral stream (Unnamed tributary to Arroyo Quiote)*	Culvert	13	Yes	388 ln ft/ 0.11 acre	Yes	Yes	No	No

Single and Complete Crossing #	Type of Aquatic Resource	Proposed Structure	Average OHWM Within Right-of-way (feet)	Potential Water of the U.S.? (Yes/No)	Linear Feet/Acres of Potential Waters of the U.S. Within the Project Right-of-Way	NWP 14 Permit Potentially Required?	PCN Potentially Required?	Floodplains	Mapped as Hydric Soils by NRCS
17	Water 17: Ephemeral stream (Unnamed tributary to Arroyo Grande)*	Culvert	19	Yes	462 ln ft/ 0.20 acre	Yes	Yes	No	No
18	Wetland 3: Emergent Wetland*	None	N/A	Yes	-/ 0.15 acre	Yes	Yes	No	No
19	Water 18: Ephemeral stream (Arroyo Garceño)	Bridge	10	Yes	448 ln ft/ 0.098 acre	Yes	No	Yes	No
20	Water 19: Stock Tank	None	N/A	No	-/ 0.20 acre	No	-	No	No
21	Water 20: Ephemeral stream (Unnamed tributary to Arroyo Grande)	Bridge	10	Yes	457 ln ft/ 0.11 acre	Yes	No	Yes	No
22	Water 21: Ephemeral stream (Unnamed tributary to Arroyo Grande)*	Bridge	11	Yes	315 ln ft/ 0.09 acre	Yes	No	Yes	No

Single and Complete Crossing #	Type of Aquatic Resource	Proposed Structure	Average OHWM Within Right-of-way (feet)	Potential Water of the U.S.? (Yes/No)	Linear Feet/Acres of Potential Waters of the U.S. Within the Project Right-of-Way	NWP 14 Permit Potentially Required?	PCN Potentially Required?	Floodplains	Mapped as Hydric Soils by NRCS
23	Water 22: Ephemeral stream (Arroyo Grande)	Bridge	12	Yes	478 ln ft/ 0.12 acre	Yes	No	Yes	No
24	Water 23: Ephemeral stream (Unnamed tributary to Arroyo Grande)*	Bridge	11	Yes	1,388 ln ft/ 0.35 acre	Yes	No	Yes	No
25	Wetland 4: Emergent Wetland	Pipe	N/A	No	-/ 0.25 acre	No	-	No	No
	Erosional Feature 1: Erosional Feature	Pipe	7	No	148 ln ft/ 0.03 acre	No	-	No	No
	Erosional Feature 2: Erosional Feature	Pipe	31	No	79 ln ft/ 0.06 acre	No	-	No	No
	Erosional Feature 3: Erosional Feature	Pipe	11	No	100 ln ft/ 0.03 acre	No	-	No	No

Single and Complete Crossing #	Type of Aquatic Resource	Proposed Structure	Average OHWM Within Right-of-way (feet)	Potential Water of the U.S.? (Yes/No)	Linear Feet/Acres of Potential Waters of the U.S. Within the Project Right-of-Way	NWP 14 Permit Potentially Required?	PCN Potentially Required?	Floodplains	Mapped as Hydric Soils by NRCS
26	Water 24: Ephemeral stream (Unnamed tributary to Arroyo Los Morenos)*	Bridge	11	Yes	445 ln ft/ 0.11 acre	Yes	No	Yes	No
27	Water 25: Ephemeral stream (Arroyo Los Morenos)	Bridge	9*	Yes	392 ln ft/ 0.08 acre	Yes	No	Yes	No
28	Water 26: Ephemeral stream (Unnamed tributary to Arroyo Los Morenos*	None	9	Yes	613 ln ft/ 0.12 acre	Yes	Yes	No	No
29	Water 27: Stock Tank	None	N/A	No	-/ 0.06 acre	No	-	No	No
30	Water 28: Ephemeral stream (Arroyo Roma)	Bridge	12	Yes	573 ln ft/ 0.16 acre	Yes	No	Yes	No

Single and Complete Crossing #	Type of Aquatic Resource	Proposed Structure	Average OHWM Within Right-of-way (feet)	Potential Water of the U.S.? (Yes/No)	Linear Feet/Acres of Potential Waters of the U.S. Within the Project Right-of-Way	NWP 14 Permit Potentially Required?	PCN Potentially Required?	Floodplains	Mapped as Hydric Soils by NRCS
31	Water 29: Ephemeral stream (Unnamed tributary to Arroyo Roma)*	None	8	Yes	494 ln ft/ 0.09 acre	Yes	Yes	No	No
*Assumed water/wetland. Right-of-entry was not granted to these crossings at the time of the field visit. Impacts were estimated based on aerial imagery.									

Indirect impacts to water quality occur primarily due to an increase in impervious surface area that could result in increased runoff and decreased water quality downstream. Construction of the proposed improvements would directly contribute to increases in impervious cover. Effects would also occur in areas where vegetation in the proposed project area is cleared during construction, which could accelerate off-site erosion due to runoff. Use of Best Management Practices (BMPs) within the proposed project area would minimize water quality effects downstream.

Under the No-Build Alternative, the existing drainage structures along and adjacent to the existing roadways would remain in their current forms and locations, and only normal maintenance would be required. No impacts to WOUS would occur.

5.10.1 Clean Water Act Section 404

According to the Clean Water Act, coordination with the U.S. Army Corps of Engineers (USACE) would be required for this project. For single and complete crossings within public transportation projects, the maximum limit of impacts to non-tidal jurisdictional WOUS that would be covered under the NWP #14 is 0.5 acres. A Pre-construction Notification (PCN) would be required if the impacts are greater than 0.1 acres or if there is any proposed discharge within special aquatic sites, including wetlands. The PCN must include a compensatory mitigation proposal to offset permanent losses of WOUS to ensure that those losses result in only minimal adverse effects to the aquatic environment. The PCN must also include a statement describing how temporary losses of WOUS would be minimized to the maximum extent practicable. Additionally, according to the 2017 NWP Regional Conditions for the State of Texas, a compensatory mitigation plan is required for all losses to streams that exceed 200 linear feet. Therefore, crossings exceeding this threshold would also require submittal of a PCN.

Designs for this project are preliminary, and the designs for specific structures for the crossings have not been finalized. It is anticipated that impacts to these WOUS will be authorized through NWP #14. If any impacts to an individual WOUS exceed 0.1 acres or 200 linear feet, or if there are any impacts to a jurisdictional wetland, a PCN would be required. Impacts to WOUS would be minimized to the extent practicable under the Build Alternative.

Under the No-Build Alternative, no impacts to WOUS would occur and no permitting would be required with the USACE.

5.10.2 Clean Water Act Section 401

In order to comply with the Texas Commission on Environmental Quality's (TCEQ's) Section 401 Water Quality Certification Program for Tier I projects, authorized by certain NWPs, at least one BMP from each of the following three categories of onsite water quality management practices would be used on the proposed project: erosion control, post-construction total suspended solids (TSS) control, and sedimentation control. The Section 401 certification requirements for Tier I projects would be met by implementing approved BMPs for erosion, sediment, and post-construction TSS controls from the list of TCEQ's Section 401 Water Quality Certification Conditions for Nationwide Permits.

Under the No-Build Alternative, no impacts to WOUS would occur and no 401 certification would be required.

5.10.3 Executive Order 11990 Wetlands

EO 11990 Protection of Wetlands (issued in 1977) requires that federal agencies minimize the destruction or modification of wetlands. Based on field investigation, potential impact to three wetlands (Wetlands 1, 2, and 3; see **Table 2**) are anticipated; therefore, EO 11990 would apply. EO 11990 prohibits new construction in wetlands unless there is no practicable alternative to such construction and the project includes all practicable measures to minimize harm to wetlands. Under the Section 404(b)(1) guidelines set forth in the Clean Water Act, the proposed project may proceed as multiple alternatives have been considered and eliminated from consideration as impractical. The proposed project will implement all necessary BMPs and take necessary mitigation measures to ensure that impacts to wetlands are minimized to the extent practicable.

Under the No-Build Alternative, no impacts to wetlands would occur; therefore, EO 11990 would not apply.

5.10.4 Rivers and Harbors Act

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.

5.10.5 Clean Water Act Section 303(d)

The project area is located within the Rio Grande basin (Hydrologic Unit Code 13090001) and located within five linear miles of two impaired assessment units listed under Section 303(d) of the Clean Water Act. Storm water runoff from the project area eventually flows to Assessment Unit 2302_07 of Segment 2302 of the Rio Grande and crosses Assessment Unit 2302A_01 of Segment 2302A of Arroyo Los Olmos (see **Table 4**). Both of the segments are listed as impaired due to elevated bacteria levels (TCEQ 2014).

Table 4: Impaired Stream Segments Within Five Linear Miles and Within the SL 195 Watershed

Watershed	Segment Name	Segment Number	Assessment Unit Number
Arroyo Grande–Rio Grande	Rio Grande below Falcon Reservoir	2302	2302_07
Arroyo Grande–Rio Grande	Arroyo Los Olmos	2302A	2302A_01

Source: TCEQ, 2014

To date, TCEQ has not identified (through either a total maximum daily load (TMDL) or the review of projects under the TCEQ MOU) a need to implement control measures beyond those required by the construction general permit (CGP) on road construction projects. Therefore, compliance with the project's CGP, along with coordination under the TCEQ MOU for certain transportation projects, collectively meets the need to address impaired waters during the environmental review process. As required by the CGP, the project and associated activities will be implemented, operated, and

maintained using best management practices to control the discharge of pollutants from the project site.

Under the No-Build Alternative, no impacts to impaired water segments would occur, and coordination with the TCEQ would not be required.

5.10.6 Clean Water Act Section 402

The proposed project would include five or more acres of earth disturbance. TxDOT would comply with the TCEQ's Texas Pollutant Discharge Elimination System (TPDES) Construction General Permit.

Efforts would be made to avoid and minimize impacts to the aquatic ecosystem during roadway design. Minimization would be achieved by preparing and implementing a Stormwater Pollution Prevention Plan (SW3P) and by implementing BMPs, including temporary erosion, sedimentation, and TSS water pollution controls. All temporary erosion controls would comply with TxDOT standard specifications and would be in place, according to the construction plans, prior to commencement of construction-related activities. The contractor would take appropriate measures to prevent, minimize, and control the spill of fuels, lubricants, and hazardous materials in the construction staging area. A construction site notice would be posted. A Notice of Intent (NOI) and Notice of Termination would be required.

Since TPDES Construction General Permit (CGP) authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by the policies and procedures that govern the design and construction phases of the project. The Project Development Process Manual and the Plans, Specifications, and Estimates (PS&E) Preparation Manual require a storm water pollution prevention plan (SWP3) be included in the plans of all projects that disturb one or more acres. The Construction Contract Administration Manual requires that the appropriate CGP authorization documents (notice of intent or site notice) be completed, posted, and submitted, when required by the CGP, to TCEQ and the municipal separate storm sewer system operator. It also requires that projects be inspected to ensure compliance with the CGP.

The PS&E Preparation Manual requires that all projects include Standard Specification Item 506 (Temporary Erosion, Sedimentation, and Environmental Controls), and the "Required Specification Checklists" require Special Provision 506-003 on all projects that need authorization under the CGP. These documents require the project contractor to comply with the CGP and SWP3, and to complete the appropriate authorization documents.

Under the No-Build Alternative, there would be no earth disturbance, and compliance with the TPDES Construction General Permit would not be required.

5.10.7 Floodplains

EO 11988, Floodplain Management, requires federal agencies to avoid, to the extent possible, long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. The project area crosses the mapped 100-year Federal Emergency Management Agency (FEMA) floodplains associated with water features throughout the project area (Flood Insurance Rate Map

Panels 48427C0525C, 48427C0540C, 48427C0550C, 48427C0565C, and 48427C0570C; **Attachment F, Figures 3a–3c**; FEMA 2016). The hydraulic design for this project would be in accordance with current FHWA and TxDOT design policies. The facility would permit the conveyance of the 100-year flood, inundation of the roadway being acceptable, without causing significant damage to the facility, stream, or other property. The proposed project would not increase the base flood elevation to a level that would violate applicable floodplain regulations and ordinances.

This project is subject to and will comply with federal Executive Order 11988 on Floodplain Management. The department implements this Executive Order on a programmatic basis through its Hydraulic Design Manual. Design of this project will be conducted in accordance with the department's Hydraulic Design Manual. Adherence to the TxDOT Hydraulic Design Manual ensures that this project will not result in a "significant encroachment" as defined by FHWA's rules implementing Executive Order 11988 at 23 CFR 650.105(q).

Under the No-Build Alternative, no impacts to floodplains would occur.

5.10.8 Wild and Scenic Rivers

A portion of the Rio Grande River in the Big Bend region has been designated as a Wild and Scenic River, but the portion abutting Starr County does not have that designation. This project would not involve work within the segment of any river designated as a Wild and Scenic River, and it would not harm the free-flowing condition, water quality, or outstanding resource values of any designated Wild and Scenic Rivers.

5.10.9 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 on this resource category or subject matter.

5.10.10 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 on this resource category or subject matter.

5.10.11 Edwards Aquifer

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.

5.10.12 International Boundary and Water Commission

A license is required from the U.S. Section, International Boundary and Water Commission (USIBWC) for any proposed activities crossing or encroaching upon the floodplains of USIBWC flood control projects or right-of-way. Although portions of the project lie within three miles of the Rio Grande, the project activities do not cross or encroach upon the floodplain of USIBWC flood control projects or right-of-way; therefore, coordination with the USIBWC would not be required.

The No-Build Alternative would have no impact on USIBWC floodplains.

5.10.13 Drinking Water Systems

Based on the Texas Water Development Board's (TWDB's) Groundwater Database and the Submitted Drillers Report Database, two water wells are within 0.25 miles of the project limits. (**Figure 3a–3c** in **Appendix E**) (TWDB 2018). Neither well is located within the proposed project limits. The proposed project would have no impact on drinking water systems.

In accordance with TxDOT's Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (Item 103, Disposal of Wells), any drinking water wells would need to be properly removed and disposed of during construction of the project.

The No-Build Alternative would have no impact on drinking water systems.

5.11 Biological Resources

5.11.1 Texas Parks and Wildlife Coordination

A Tier 1 Site Assessment was completed for the proposed project to determine whether coordination with the Texas Parks and Wildlife Department (TPWD) would be required (TxDOT 2018b). Impacts to vegetation of the Agriculture; Disturbed Prairie; Floodplain; Riparian; and Scrub, Thornscrub, and Shrubland MOU habitat types would exceed the threshold for coordination with TPWD, though impacts to vegetation proposed by the Build Alternative would be minimized to the greatest extent practicable. The proposed project is within range of and with suitable habitat present for several species of greatest conservation need (SGCNs) that do not have designated BMPs. Coordination with TPWD was initiated on November 5, 2018 and was completed on March 22, 2019. The coordination exchanges are included in **Appendix F**.

Under the No-Build Alternative, no coordination with TPWD would be required.

5.11.2 Impacts to Vegetation

The project area is located within the Southern Texas Plains Ecoregion of Texas, as mapped by the Ecological Mapping System of Texas (EMST) (MoRAP 2013). The EMST identified several vegetation types within the project area; vegetation in the project area was field verified by qualified biologists in 2017. Vegetation observed within the proposed project area is consistent with that of an arid environment. Five general categories of vegetation were observed within the project area during field investigations (**Table 5**). These habitat types identified in the 2013 TxDOT–TPWD MOU and Threshold Programmatic Agreement have been assigned acreage thresholds which, if exceeded, would require coordination under the TxDOT–TPWD MOU.

The proposed project area is composed of the following habitat types: Agricultural, Disturbed Prairie, Floodplain, Riparian, Scrub, Thornscrub, Shrubland, and Urban (**Table 5** and **Figure 4a–4p** in **Appendix E**) (MoRAP 2013). These habitat types are not considered rare or important remnant vegetation as mapped by the Texas Conservation Action Plan. The project area was investigated for the presence of unusual vegetation features as identified by the TxDOT–TPWD MOU. Unusual vegetation features identified within the project area include unmaintained vegetation, riparian vegetation, fenceline vegetation, and unusual stands of isolated vegetation. No remnant vegetation occurs in the project

area. Standard vegetation BMPs would be implemented and many of the riparian corridors would be bridged. The project area was also investigated for the presence of special habitat features as identified by the TxDOT–TPWD MOU, though none were identified. For more information, see the *Tier 1 Site Assessment*, the *Biological Evaluation Form*, and the *Biological Assessment* (TxDOT 2018b, 2018c, 2019) available in TxDOT's project files and located in TxDOT's Environmental Compliance Oversight System.

Table 5: Observed Vegetation Within the SL 195 Project Area

Habitat MOU Type	Acreage
Agricultural	37.5
Disturbed Prairie	247.2
Riparian (includes Floodplain)	32.2
Scrub, Thornscrub, Shrubland	344.3
Urban	19.2
Total	680.5

Note: The vegetation calculations do not include existing pavement, structures, or open water features within the project area.

Under the No-Build alternative, the existing vegetation would remain as it is presently, except for those areas where a landowner could decide to either harvest or clear the land for other uses. The No-Build Alternative would not require any conversion of vegetation to a transportation facility, nor would it impact unusual vegetation or special habitat features.

5.11.3 Executive Order 13112 on Invasive Species

This project is subject to and will comply with federal EO 13112 on Invasive Species. The department implements this EO on a programmatic basis through its *Roadside Vegetation Management Manual* and *Landscape and Aesthetics Design Manual*.

The No-Build Alternative would not be subject to EO 13112 on Invasive Species.

5.11.4 Executive Memorandum on Environmentally and Economically Beneficial Landscaping

In accordance with the Executive Memorandum of August 10, 1995, all agencies shall comply with NEPA as it relates to vegetation management and landscape practices for all federally assisted projects. The Executive Memorandum directs that, where cost-effective and to the extent practicable, agencies would (1) use regionally native plants for landscaping; (2) design, use, or promote construction practices that minimize adverse effects on the natural habitat; (3) seed to prevent pollution by, among other things, reducing fertilizer and pesticide use; (4) implement water-efficient and runoff reduction practices; and (5) create demonstration projects employing these practices. Landscaping included with this project would be in compliance with the Executive Memorandum and the guidelines for environmentally and economically beneficial landscape practices.

This project is subject to and will comply with the federal Executive Memorandum on Environmentally and Economically Beneficial Landscaping, effective April 26, 1994. The department implements this

Executive Memorandum on a programmatic basis through its Roadside Vegetation Management Manual and Landscape and Aesthetics Design Manual.

The No-Build Alternative would not be subject to the Executive Memorandum on Environmentally and Economically Beneficial Landscaping.

5.11.5 Impacts to Wildlife

The vegetation of the Rio Grande Valley provides habitat for a wide range of reptilian, avian, and mammalian species that are common to the South Texas Brush Country environment. Some wildlife species could occur within undeveloped portions of the existing and proposed ROW. Required clearing or other construction-related activities may directly or indirectly affect species that reside on or adjacent to the project area ROW. Heavy machinery could kill small, low-mobility animals or could cause soil compaction, impacting animals that live underground. Larger, more-mobile species will typically avoid construction activities and move into adjacent areas.

With regard to encroachment-alteration effects under the Build Alternative, the effects of removing important wildlife habitat areas would be limited to the unmaintained vegetation and at the 31 water features present within the project construction area. Accordingly, impacts to habitat would be limited to the area of direct impacts, and no encroachment impacts are expected. Wildlife and vegetation BMPs are included in **Section 8.0**.

Under the No-Build Alternative, no impacts to wildlife species or their habitats would occur.

5.11.6 Migratory Bird Protections

The project area was investigated for any structures containing migratory birds or indications of nesting migratory birds. No nesting migratory birds were observed during the site visit; however, bridges may contain nesting swallows and it may be necessary to install bird nest exclusion devices prior to construction.

This project will comply with applicable provisions of the Migratory Bird Treaty Act (MBTA) and Texas Parks and Wildlife Code Title 5, Subtitle B, Chapter 64, Birds. It is the department's policy to avoid removal and destruction of active bird nests except through federal or state approved options. In addition, it is the department's policy to, where appropriate and practicable:

- use measures to prevent or discourage birds from building nests on man-made structures within portions of the project area planned for construction, and
- schedule construction activities outside the typical nesting season.

The No-Build Alternative would not require any removal or disturbance of migratory birds, their nests, or their young and would have no impact on migratory birds.

5.11.7 Fish and Wildlife Coordination Act

The proposed project would not require an Individual Permit issued by the USACE; therefore, the Fish and Wildlife Coordination Act does not apply.

The No-Build Alternative would not be required to comply with the Fish and Wildlife Coordination Act.

5.11.8 Bald and Golden Eagle Protection Act

Bald and Golden Eagles are protected by the Bald and Golden Eagle Protection Act of 2007. No Bald or Golden Eagle habitat was observed within the proposed project area. The proposed project would have no impact on Bald or Golden Eagles.

The No-Build Alternative would have no impact on Bald or Golden Eagles.

5.11.9 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 on this resource category or subject matter.

5.11.10 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 on this resource category or subject matter.

5.11.11 Threatened, Endangered, and Candidate Species

USFWS Information for Planning and Consultation (IPaC) and TPWD lists of endangered and threated species were used for this analysis (USFWS 2020, TPWD 2018, TPWD 2020). In April 2020, TPWD revised the Starr County species list to include 6 additional state-listed species: Red-crowned Parrot [*Amazona viridigenalis*], reddish egret [*Egretta rufescens*], white-faced ibis [*Plegadis chihi*], speckled chub [*Macrhybopsis aestivalis*], Tamaulipas shiner [*Notropis braytoni*], and black-striped snake [*Coniophanes imperialis*]. Additionally, TPWD added 30 SGCNs and removed 15 species from consideration on the county list. Environmental scoping for the proposed project was already complete at this time. Per the TxDOT and TPWD MOU, changes to TPWD county lists are not required to be considered in cases in which environmental scoping has already occurred prior to the revision of the lists. In addition, SGCNs are not afforded regulatory protection under state or federal law; therefore, potential impacts to recently added SGCN species are not evaluated in this EA. The additional state-listed threatened species have been assessed and suitable habitat occurs only for the black-striped snake. The previously listed species, which have been removed from the updated list, remain in the discussion below as this project was previously coordinated with TPWD.

<u>Federally Listed Species</u>

A presence-absence survey was conducted for the star cactus, Johnston's frankenia, and Walker's manioc in September 2006. No individuals of these species were identified during the survey. A presence absence survey for the Zapata bladderpod was conducted in April and May of 2007. A large population of Zapata bladderpods was identified and delineated during that survey and was subsequently avoided by shifting the project alignment. In 2015, spring (May) and fall (October) presence/absence surveys for all rare species were conducted along portions of the project where right-of-entry was granted. No individuals of any federally listed plant species were identified during those survey efforts. In April 2017, additional rare plant surveys within the project area were conducted

where right-of-entry was granted. During the surveys, one population of approximately 600 individuals of Zapata bladderpods was observed near the western terminus of the project area, entirely within the proposed right-of-way. Additionally, three individuals of the state-listed (recently federally delisted) Johnston's frankenia were observed. Suitable habitat for star cactus and Walker's manioc may be present within the proposed project area; therefore, the proposed project may affect, but is not likely to adversely affect, these species. Due to the presence of the Zapata bladderpod population within the current SL 195 alignment, this project may affect and is likely to adversely affect this species (TxDOT 2018c, 2018d). Formal consultation with the U.S. Fish and Wildlife Service (USFWS) was initiated; the Final Biological Opinion was signed on July 17, 2019 and concluded the formal consultation with the USFWS (see **Appendix F**).

TxDOT has determined that the proposed project may affect but is not likely to adversely affect the federally endangered star cactus and Walker's manioc. While the action area is within range of and contains suitable soils for and vegetation associated with the star cactus and Walker's manioc, there are no recorded occurrences of these species in close proximity to the proposed alignment, much of the surface habitat is lacking suitable vegetative structure due to landscape modification (agriculture, infrastructure development, etc.), and most of the project area was determined to either not support suitable habitat (243.7 acres or 34 percent) or has been previously surveyed with negative findings (260 acres or 37 percent). TxDOT commits to surveying the remaining 200 acres on private property, once right-of-way is purchased, and will attempt to realign the limits of construction to avoid or minimize impacts to any newly identified plant populations, as practicable within the proposed right-of-way. Voluntary conservation measures described in **Section 8.0** are designed to protect listed species, soils, and vegetation within the action area by minimizing erosion, ground disturbance, and other indirect effects.

TxDOT has determined that the proposed project may affect and is likely to adversely affect the federally endangered Zapata bladderpod due to the potential disturbance or destruction of individuals within a known population. Although TxDOT proposes to revise the SL 195 alignment to avoid destruction to the mapped population, complete avoidance of all effects to this population may not be practicable due to its location within the median of the proposed alignment. Conservation measures in **Section 8.0** provide protection to the known Zapata bladderpod population within the action area during and after construction.

The USFWS IPaC suggests that the project is within the ranges of the ocelot and jaguarundi. Although thornscrub habitat and brushland occur within riparian or stream corridors along the project area, the majority of this land has been grazed or farmed in recent years; only small areas of fragmented dense vegetation remain along the future SL 195 corridor, and these areas have limited connectivity across the landscape. The optimal habitat for the ocelot (greater than 95-percent canopy cover and dense ground cover [Tewes and Everett 1986]) for this species does not occur and since 1980, ocelots have only been documented in Cameron, Hidalgo, Willacy, Kenedy, and Jim Wells Counties (Tewes & Hughes 2001). For the jaguarundi, there has not been a confirmed sighting in Texas for this species in over 13 years (USFWS 2015 & Reyes 2008); with only credible sightings documented from Cameron, Willacy,

and Webb Counties (Tewes 1987). Due to the lack of optimal habitat within the project area and due to the commonly accepted occupied range of these species being located outside of Starr County, the SL 195 project is anticipated to have no effect on either the ocelot or the jaguarundi.

Because TxDOT is the lead federal agency, a PCN would not be required under General Condition 18 of the NWP program to comply with the Section 7 of the Endangered Species Act (ESA). TxDOT will retain documentation that shows ESA Section 7 compliance for impacts to federally listed species.

The project is located within the range of, and contains suitable habitat for, 21 state-listed threatened or endangered species, and 29 SGCNs, as listed below.

State-Listed Species:

Black-spotted newt (*Notophthalmus meridionalis*), Mexican burrowing toad (*Rhinophrynus dorsalis*), Mexican treefrog (*Smilisca baudinii*), sheep frog (*Hypopachus variolosus*), South Texas siren (large form) (*Siren* sp. 1), white-lipped frog (*Leptodactylus fragilis*), black-striped snake, northern cat-eyed snake (*Leptodeira septentrionalis septentrionalis*), reticulate collared lizard (*Crotaphytus reticulatus*), Texas horned lizard (*Phrynosoma cornutum*), Texas indigo snake (*Drymarchon melanurus erebennus*), Texas tortoise (*Gopherus berlandieri*), cactus-ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*), northern beardless-tyrannulet (*Camptostoma imberbe*), rose-throated becard (*Pachyramphus aglaiae*), tropical parula (*Parula pitiayumi*), white-tailed hawk (*Buteo albicaudatus*), wood stork (*Mycteria americana*), zone-tailed hawk (*Buteo albonotatus*), white-nosed coati (*Nasua narica*), and Johnston's frankenia (*Frankenia johnstonii*) (TPWD 2018, 2020; TxDOT 2018b, 2018c).

SGCNs

The project is within the range of or includes suitable habitat for the following SGCNs: arrowleaf milkvine (*Matelea sagittifolia*), Chihuahua balloon-vine (*Cardiospermum dissectum*), Fitch's hedgehog cactus (*Echinocereus reichenbachii* var. *fitchii*), Gregg's wild-buckwheat (*Eriogonum greggii*), Jones' nailwort (*Paronychia jonesii*), Kleberg saltbush (*Atriplex klebergorum*), prostrate milkweed (*Asclepias prostrata*), Runyon's cory cactus (*Coryphantha macromeris* var. *runyonii*), sand sheet leaf-flower (*Phyllanthus abnormis* var. *riograndensis*), Shinner's rocket (*Thelypodiopsis shinnersii*), shortcrown milkvine (*Matelea brevicoronata*), Siler's huaco (*Manfreda sileri*), stinking rushpea (*Pomaria austrotexana*), Texas peachbush (*Prunus texana*), Texas shrimp-plant (*Yeatesia platystegia*), Texas stonecrop (*Lenophyllum texanum*), St. Joseph's staff (*Manfreda longiflora*), Vasey's adelia (*Adelia vaseyi*), Yellow-flowered alicoche (*Echinocereus papillosus*), a tiger beetle (*Tetracha affinis*), Cazier's tiger beetle (*Cicindela cazieri*), neojuvenile tiger beetle (*Cicindela obsoleta neojuvenilis*), spot-tailed earless lizard (*Holbrookia lacerata*), Audubon's oriole (*Icterus graduacauda audubonii*), brown jay (*Cyanocorax morio*), Brownsville common yellowthroat (*Geothlypis trichas insperata*), Mexican hooded oriole (*Icterus cucullatus cucullatus*), western burrowing owl (*Athene cunicularia hypugaea*), and plains spotted skunk (*Spilogale putorius interrupta*) (TxDOT 2018b, 2018c).

Although the proposed project may result in the removal of potentially suitable habitat or the temporary disturbance of individuals of these species, the project is not anticipated to cause a substantial impact

to any state-listed species or SGCNs. Additionally, proposed plans include bridged crossings and culverts that would accommodate wildlife movements. Any impact to individuals would be incidental in nature.

The following BMPs would be implemented in an effort to avoid impacts to the state-listed and SGCN species:

- Terrestrial reptile BMPs (northern cat-eyed snake, reticulate collared lizard, spot-tailed earless lizard, and Texas indigo snake):
    - Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred. Erosion controls with plastic netting should not be used.
    - For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling.
    - Inform contractors that if reptiles are found on project site allow species to safely leave the project area.
    - Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter where feasible.
    - Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
    - Due to increased activity (mating) of reptiles during the spring, construction activities like clearing or grading should attempt to be scheduled outside of the spring (April-May) season. Also, timing ground disturbing activities before October, when reptiles become less active and may be using burrows in the project area, is also encouraged.
- Texas horned lizard:
    - Avoid harvester ant mounds in the selection of Project Specific Locations (PSLs) where feasible.
    - Apply Terrestrial Reptile BMPs.
- Texas tortoise:
    - Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
    - Utility trenches should be covered overnight or visually inspected before filling to avoid burial of the species.

- If Texas tortoises are present in a project area they should be removed from the area. After removal of the tortoises, the area that will be disturbed during active construction and project specific locations should be fenced off to exclude tortoises and other reptiles. The exclusion fence should be constructed and maintained as follows: (a): The exclusion fence should be constructed with metal flashing or drift fence material; (b): Rolled erosion control mesh material should not be used; (c) The exclusion fence should be buried at least 6 inches deep and be at least 24 inches high; and (d): The exclusion fence should be maintained for the life of the project and only removed after the construction is completed and the disturbed site has been revegetated.
- Apply Terrestrial Reptile BMPs.

- The Water Quality BMPs and the Amphibian BMPs will be followed for the: black-spotted newt, Mexican treefrog, and white-lipped frog. Amphibian and Aquatic Reptile BMPs:
  - Unless absence of the species can be demonstrated, assume presence in suitable habitat and implement the following BMPs. Absence can only be demonstrated using TPWD-approved survey efforts (contact TPWD for minimum survey protocols for species and project site conditions).
  - For projects within one mile of a known occupied location or observation of the species recorded from 1980 until the current year and suitable habitat is present, coordinate with TPWD.
  - For new location roadway projects, coordinate with TPWD.
  - For projects within existing right-of-way when work is in water or will permanently impact a water feature and potential habitat exists for the target species complete the following:
    - Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
    - Minimize impacts to wetland, temporary and permanent open water features, including depressions, and riverine habitats.
    - Maintain hydrologic regime and connections between wetlands and other aquatic features.
    - Use barrier fencing to direct animal movements away from construction activities and areas of potential wildlife-vehicle collisions in construction areas directly adjacent, or that may directly impact, potential habitat for the target species.
    - Apply hydromulching and/or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If hydromulching and/or hydroseeding are not feasible due to site conditions, using erosion control

blankets or mats that contain no netting, or only contain loosely woven natural fiber netting is preferred. Plastic netting should not be used on the project.

- Project specific locations (PSLs) proposed within state-owned right-of-way should be located in uplands away from aquatic features.
- When work is directly adjacent to the water, minimize impacts to shoreline basking sites (e.g., downed trees, sand bars, exposed bedrock) and overwinter sites (e.g., brush and debris piles, crayfish burrows) where feasible.
- Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may be refugia for terrestrial amphibians, where feasible.
- If gutters and curbs are part of the roadway design, where feasible install gutters that do not include the side box inlet and include sloped (i.e. mountable) curbs to allow small animals to leave roadway. If this modification to the entire curb system is not possible, install sections of sloped curb on either side of the storm water drain for several feet to allow small animals to leave the roadway. Priority areas for these design recommendations are those with nearby wetlands or other aquatic features.

  - For projects that require acquisition of additional ROW and work within that new right-of-way is in water or will permanently impact a water feature, implement the bulleted items above and below, where applicable:
    - For sections of roadway adjacent to wetlands or other aquatic features, install wildlife barriers that prevent climbing. Barriers should terminate at culvert openings in order to funnel animals under the road. The barriers should be of the same length as the adjacent feature or 80 feet long in each direction, or whichever is the lesser of the two.
    - For culvert extensions and culvert replacement/installation, incorporate measures to funnel animals toward culverts such as concrete wingwalls and barrier walls with overhangs.
    - When riprap or other bank stabilization devices are necessary, their placement should not impede the movement of terrestrial or aquatic wildlife through the water feature. Where feasible, biotechnical streambank stabilization methods using live native vegetation or a combination of vegetative and structural materials should be used.

- Water Quality BMPs—In addition to BMPs required for a TCEQ Storm Water Pollution Prevention Plan and/or 401 water quality permit:
  - Minimize the use of equipment in streams and riparian areas during construction. When possible, equipment access should be from banks, bridge decks, or barges.

  - When temporary stream crossings are unavoidable, remove stream crossings once they are no longer needed and stabilize banks and soils around the crossing.
- Sheep frog:
  - Minimize disturbance to burrows or downed woody debris.
  - Apply water quality BMPs.
  - Apply amphibian BMPs.
- South Texas siren:
  - Minimize impacts to warm, shallow waters with vegetative cover such as ponds and ditches.
  - Apply water quality BMPs.
  - Apply amphibian BMPs.
- Bird BMPs—In addition to complying with the Migratory Bird Treaty Act (MBTA) perform the following BMPs (cactus ferruginous pygmy-owl, gray hawk, northern beardless tyrannulet, rose-throated becard, tropical parula, white-tailed hawk, wood stork, zone-tailed hawk, Audubon's oriole, brown jay, Brownsville common yellowthroat, Mexican hooded oriole, and western burrowing owl):
  - Prior to construction, perform daytime surveys for nests including under bridges and in culverts to determine if they are active before removal. Nests that are active should not be disturbed.
  - Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season. Nesting season is recognized at the TxDOT Pharr District as: from February 15th to October 1st.
  - Avoid the removal of unoccupied, inactive nests, as practicable.
  - Prevent the establishment of active nests during the nesting season on TxDOT owned and operated facilities and structures proposed for replacement or repair.
  - Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.
- Plains spotted skunk—Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered, and to avoid unnecessary impacts to dens.
- White-nosed coati—Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

- SGCN plants:
  - For plants that are found within the project area but outside of the project footprint, mark plant locations with temporary barrier fencing and alert contractors to avoid plants within those areas.
  - For plants found within the project footprint, and avoidance is not possible, TPWD will be contacted to discuss options to seed bank or otherwise attempt to conserve populations prior to construction.

With regard to indirect impacts under the Build Alternative, other than potential impacts to the species listed above, the proposed project would have no effect on any of the remaining listed species that may occur in Starr County, their habitats, or designated critical habitats. The proposed project would not alter the hydric regime or reduce diversity within the ecosystem.

Under the No-Build Alternative, no impacts to SGCNs or threatened or endangered species or their habitats would occur, and no coordination would be required with the USFWS or TPWD.

5.12 Air Quality

An air quality technical report was prepared for the proposed project in accordance with TxDOT's *Standard Operating Procedures for Preparing Air Quality Statements* (TxDOT 2017b, 2018d) and *Environmental Handbook—Air Quality* (TxDOT 2016b). The technical report evaluated the project alternatives in relation to: (1) transportation conformity including, potentially, a hot-spot analysis; (2) carbon monoxide (CO) traffic air quality analysis (TAQA); (3) mobile source air toxics (MSAT); (4) the Congestion Management Process (CMP); and (5) construction air emissions. The air quality technical report will be made available to local officials and is located in TxDOT's Environmental Compliance Oversight System.

The project is located in Starr County, in an area in attainment or unclassifiable for all National Ambient Air Quality Standards; therefore, the transportation conformity rules do not apply. See the Air Quality Technical Report for more details.

The project is not located within a CO or PM nonattainment or maintenance area; therefore, a project level hot-spot analysis is not required.

Traffic data for the estimated time of completion year 2022 and design year 2042 ranges from 9,300 to 30,200 vehicles per day (vpd) and from 4,500 to 39,800 vpd, respectively, along the proposed project limits. A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that the carbon monoxide standard would ever be exceeded as a result of any project with an average annual daily traffic (AADT) below 140,000. The AADT projections for the project do not exceed 140,000 vehicles per day; therefore, a Traffic Air Quality Analysis was not required.

Due to a design-year traffic volume of less than 140,000 vpd, a quantitative MSAT analysis was not required. Under the Build Alternative for the design year it is expected there would be reduced MSAT emissions in the immediate area of the project, relative to the No-Build Alternative, due to the reduced

VMT associated with more direct routing. Under this alternative there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced along the new roadway sections that would be built at locations near rural properties that are not currently near major arterial roadways, or at locations of rural residences or subdivisions situated near where the proposed alignment would cross arterial roadways, such as Nye Road, FM 649, N. Alvarez Road, and Jesse Warren Drive. 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. 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 90 percent from 2010 to 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 virtually all locations.

The proposed project is within an attainment or unclassifiable area for ozone and CO; therefore, a project level CMP analysis is not required.

During the construction phase of this project, temporary increases in particulate matter (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 PM 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: https://www.tceq.texas.gov/airquality/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.

Implementation of the No-Build Alternative would lead to increased traffic congestion and decreased mobility along US 83 and would result in decreased vehicular speed and increased stop-and-go traffic.

5.13 Hazardous Materials

A *Hazardous Materials Initial Site Assessment* (ISA) was completed for the proposed project to identify known and possibly unknown hazardous material contamination that may impact the proposed project

(TxDOT 2015c). No potential hazardous material sites were identified in the project area. Several unmapped sites were noted on the regulatory report: one CER NFRAP site was archived in 1987; one RCRA GEN, three ERNS reporting from the 1990s; one SWLF transfer station (active); one LPST (Final Concurrence); 15 PSTs (only one site with USTs in use); and two HW generators, both inactive. None of these sites were observed in the site survey. A small amount of household trash was observed during field investigations.

As discussed in the ISA and Section 5.1, multiple displacements (five residential, one commercial, and seven additional structures) are expected as result of the proposed project. The potential for encountering asbestos containing materials during the demolition of these structures will be assessed and abated during the acquisition and management of new right-of-way.

Numerous oil and gas lines and wells are located within the future alignment. These potential hazardous materials associated with oil and gas infrastructure will be assessed and addressed during the acquisition and management of new right-of-way for the project. Additionally, contamination could be encountered during utility adjustments. Coordination with utility companies concerning any such contamination would be addressed during the right-of-way stage of project development. It is anticipated that all utility adjustments or relocation would be completed prior to construction.

All records (including maps) from the database search are included in the ISA. Incorrect or incomplete addresses may result in some facilities being listed as unmappable due to discrepancies in the locations of some facilities. No potential hazardous material issues were identified within the project area during field investigations. No impacts to potential hazardous materials sites are anticipated as a result of the proposed project based on current data.

Any unanticipated hazardous materials and/or petroleum contamination encountered during construction would be handled according to applicable federal and state regulations per TxDOT Standard Specifications. No unresolved hazardous materials situations for which TxDOT would be responsible are anticipated with respect to the project. Any adjustments to pipelines or potential utilities would use standard techniques. The contractor would take appropriate measures to 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 entirely. All construction materials used for this project would be removed as soon as work schedules permit.

Under the No-Build Alternative, no impacts to pipelines or disturbance to any potentially contaminated sites would occur. The No-Build Alternative would not require any actions with regard to hazardous materials.

5.14 Traffic Noise

A traffic noise analysis, *Traffic Noise Technical Report* (TxDOT 2017c) was conducted for the proposed project in accordance with TxDOT's FHWA-approved *Guidelines for Analysis and Abatement of Roadway Traffic Noise* (TxDOT 2011). Existing and predicted traffic noise levels were modelled at receiver locations that 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.

Modeled noise-sensitive locations were residential and the analysis determined that out of ten representative receivers, three were predicted to have noise levels that exceed the FHWA noise abatement criteria, or that substantially exceed the existing noise levels; therefore, the proposed project would result in a traffic noise impact.

Noise abatement measures were considered and analyzed for each impacted location. Before any abatement measure can be proposed for the project, it must be both feasible and reasonable. Noise abatement, typically a noise barrier, is not feasible unless it reduces noise levels by at least five dB(A) at greater than 50% of first-row impacted receivers. To be reasonable, the barrier must not exceed the cost-effectiveness criterion of $25,000 per benefited receiver and must achieve the noise reduction design goal of seven dB(A) for one receiver. None of the noise abatement measures would be both feasible and reasonable; therefore, no abatement measures are proposed for this project.

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 following predicted (2042) noise impact contours (see Table 6).

Table 6: Land Use Contours for Undeveloped Land

Land Use	Land Use Contour	Distance from Right-of-Way
NAC Category B & C (@ US 83 Intersection)	66 dB(A)	62 Feet (North Side) 27–52 Feet (South Side)
NAC Category B & C (US 83 Intersection to FM 649)	66 dB(A)	32 Feet
NAC Category B & C (FM 649 to FM 755)	66 dB(A)	22 Feet
NAC Category E	71 dB(A)	Within Right-of-Way
NAC Category E (@ US 83 Intersection)	71 dB(A)	10 Feet (North Side) 1 Foot (South Side)

A copy of the traffic noise analysis will be made available to local officials and is saved in TxDOT's Environmental Compliance Oversight System. 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.

Under the No-Build Alternative, future traffic noise levels would be similar to existing conditions or would increase with increasing traffic volumes on adjacent existing roadways.

5.15 Induced Growth

An *Indirect Impacts Technical Report* (TxDOT 2018e) was prepared for the proposed project in accordance with TxDOT's *Indirect Impacts Analysis Guidance* (TxDOT 2016c).

The analysis presented in the technical report determined that construction of the proposed project could contribute to an accelerated pace of development within the indirect impacts area of influence (AOI), or study area. According to interviews conducted with local planners and professionals, no development plans have been officially announced within the AOI that are solely dependent on the proposed roadway. In fact, no formal development plans currently exist for any type of development within the AOI. However, the interviews revealed the proposed project is expected to spur some development in concert with other market forces in the AOI through the timeframe of 2041.

The AOI, comprising one-half-mile buffers at four intersections of the proposed project alignment with US 83, FM 649, FM 3167, and FM 755, encompasses a collective area of approximately 2,010 acres. Within these 2,010 acres, approximately 1,859 acres are undeveloped land (approximately 92 percent of the total AOI acreage). Of this undeveloped land, approximately 1,642 acres are developable (e.g., land located outside the 100-year floodplain, roadways, etc.; see **Figure 5** in **Appendix E**).

Although the type, form, and density of future development within these areas is unknown at this time, the indirect impacts analysis concluded that there is a potential for impacts to vegetation and wildlife habitat in the AOI. Induced growth could result in the conversion of as many as 1,642 acres of undeveloped land to developed uses. Induced growth, therefore, could result in the removal and/or fragmentation of wildlife habitat within the AOI. Wildlife habitat in the region has been experiencing fragmentation for decades as a result of development and conversion for agricultural uses. Because of this fragmentation, it has been difficult to provide protection to large, contiguous tracts of land, and habitat conservation efforts in the Lower Rio Grande Valley have largely focused on smaller tracts that can provide "islands" of habitat and travel corridors between them. This conservation trend is illustrated by USFWS's Lower Rio Grande Valley National Wildlife Refuge, which consists of multiple small tracts, some of which are located within the AOI (**Figure 6** in **Appendix E**). Induced development within the AOI would likely be limited to areas where utilities are available. Induced growth effects are not anticipated to be substantial because areas of growth would likely be limited due to a lack of utility service, and habitat conservation has been a priority for USFWS in the region.

Four federally listed endangered plant species are listed within Starr County, three of which (star cactus, Walker's manioc, and Zapata bladderpod) could potentially occur within the project area. A number of state-listed species are listed as potentially occurring within Starr County, and potential habitat for 20 of these could occur within the project area. Additionally, 29 SGCNs could be impacted. It is possible that any of these federally listed or state-listed species could occur within various portions of the AOI. If areas within the AOI that provide appropriate habitat for these species would be affected by induced development, then the species, or individuals of the species, could be affected or impacted. As discussed above, however, the USFWS's Lower River Grande Valley National Wildlife Refuge provides habitat protection for some of these species, and induced growth effects would not be anticipated to be substantial because growth would likely be limited.

In summary, the consensus among the four planners and professionals who were interviewed is that the proposed project would influence future land use within the AOI; however, those interviewed agreed that such project-induced land use change is considered positive for the local communities.

Specific developments have not been identified or disclosed as of this time that could be characterized as "induced growth"; however, the interviewees agree that the proposed project could accelerate the rate of future growth given that the project is providing an alternate east-west corridor that is generally lacking in this portion of Starr County.

Ultimately, because the proposed project is not anticipated to cause substantial negative indirect induced growth impacts, the requirement for mitigation of environmental impacts would be limited to mitigating only the direct impacts associated with this proposed project. Any mitigation for project-induced land development impacts, which may arise after construction of the proposed project, would be the responsibility of the land developer. Therefore, mitigation for indirect induced growth impacts would not be required of the proposed project sponsors based on the analysis presented here.

Under the No-Build Alternative, current development rates and patterns would remain constant, and no induced growth would occur.

5.16 Cumulative Impacts

A *Cumulative Impacts Assessment Technical Report* (TxDOT 2018f) was prepared for the proposed project in accordance with TxDOT's *Cumulative Impacts Analysis Guidelines* (TxDOT 2016d). Based on the results of TxDOT's cumulative impacts risk assessment, supported by the information presented in the cumulative impacts technical report and in the technical reports prepared for the proposed project, a cumulative impacts analysis is required for the proposed project. The resources/issues for which the proposed project may potentially have cumulative impacts are Vegetation and Wildlife Habitat and Federally Listed Threatened/Endangered Species.

5.16.1 Resource Study Areas

Resource Study Areas (RSA) were chosen based on characteristics of the resource and the context and scale of the proposed project. The timeframe in which effects to resources were considered for this analysis is 1994 to 2030. Geographically, the RSAs were chosen to allow for meaningful data collection and analysis of the current health and historic context of the resources. Starr County is the RSA for Vegetation and Wildlife Habitat (**Figure 7** in **Appendix E**). This geography provides a large enough area to account for any potential project effects to be felt. The RSA for federally listed threatened/endangered species is consistent with known soil types within Starr County upon which the three federally listed plant species that could potentially be present within the project area (star cactus, Walker's manioc, and Zapata bladderpod) may occur (**Figure 8** in **Appendix E**).

5.16.2 Other Actions—Past, Present, and Reasonably Foreseeable—and Their Effect on Each Resource

Since 1994, several actions have occurred or are planned within the RSAs that could contribute to cumulative impacts. These actions include residential and commercial development, along with transportation improvements. Based on an analysis of the transportation improvements programmed by TxDOT, three projects within the RSAs have been recently completed, are currently under construction, or are planned for the near future. **Figure 9** illustrates the following projects that have

been recently completed or are planned or proposed for construction: US 83, FM 755, and the IDEA Public School campus.

Information on planned developments were obtained from the City of Roma and Rio Grande City, including the following notable (reasonably foreseeable) projects: Monarch Estates single-family subdivision, a large retail development at the northeast corner of FM 755 and US 83 in Rio Grande City, and dedicated parkland along Roma Creek near the western terminus of the proposed project.

5.16.3 Overall Effects of the Proposed Project Combined with Other Actions

Vegetation and Wildlife Habitat

Up to approximately 680 acres of vegetation occurs within the proposed project footprint. Vegetation that provides habitat for various wildlife species could be removed as a result of induced development of undeveloped, vegetated areas within the RSA. As much as 1,642 acres of undeveloped land within the AOI are available for development; thus, some induced development impacting wildlife habitat is anticipated. Over 100 acres of reasonably foreseeable development is expected to take place in the future, according to City of Roma and Rio Grande City input. These additional developments would likely require land acquisitions, vegetation clearing or conversion, and soil disturbance. The construction of any new facilities, infrastructure, or developments deemed reasonably foreseeable would contribute cumulatively to the conversion of plant and wildlife habitat in the RSA (**Figure 9** in **Appendix E**). Future development may also create a larger barrier between vegetation and wildlife habitat on either side of the SL 195 roadway, which would further increase the fragmentation of plant and wildlife habitat in the vicinity.

Although public policy and current land use trends present a favorable environment for land use changes in the RSA, the extent and pace of future development along SL 195 would be tempered by the lack of availability of services (i.e., water, sewer, and electric utilities).

The vegetation types in the project area and throughout the AOI are found in large quantities throughout Starr County and surrounding counties. In addition, the Lower River Grande Valley National Wildlife Refuge serves to protect wildlife habitat in the RSA. Therefore, the cumulative loss of vegetation/habitat associated with possible indirect effects is not considered substantial.

Federally Listed Threatened and Endangered Species

The project may affect three federally listed endangered plant species. Some induced development that would impact habitat for listed species is anticipated. In addition, the Lower Rio Grande Valley National Wildlife Refuge serves to protect habitat in the RSA, including some known populations of listed plant species. Seven of the Lower Rio Grande Valley National Wildlife Refuge tracts in Starr County are designated as critical habitat for the Zapata bladderpod, including the Cuellar, Chapeno, and Arroyo Morteros Tracts located south/southwest of the Falcon Heights subdivision; Las Ruinas, Los Negros, and Arroyo Ramirez tracts located west and northwest of the City of Roma; and the La Puerta Tract located southeast of Rio Grande City (**Figure 6** in **Appendix E**). These areas include both the largest known population of Zapata bladderpod as well as additional suitable habitat of uncertain

occupancy, as described above. One private land site northeast of the town of Salineño has also been designated as critical habitat in Starr County. This site supports the largest known population of Zapata bladderpod outside the refuge. These critical habitat units are protected in perpetuity to support the continued existence of the Zapata bladderpod.

Although no surveys have been conducted outside the existing or proposed right-of-way for SL 195, suitable habitat (vegetation, soils, and geology) for the Zapata bladderpod, star cactus, and Walker's manioc occur within the RSA. Cumulative effects resulting from previous development, the construction of SL 195, and reasonably foreseeable development may occur; however, due to the extent of grazing on the adjacent land, the lack of infrastructure to support adjacent development along the majority of the SL 195 alignment, and the proposed BMPs to protect adjacent land from increased erosion, any effects to these species are presumed to be insignificant and discountable. Therefore, even though some individuals of an existing population may be impacted by the proposed SL 195 improvements in addition to the recently completed and reasonably foreseeable development illustrated on **Figure 9** in **Appendix E**, the cumulative loss of habitat for threatened and endangered species associated with possible indirect effects is not anticipated to be substantial.

5.16.4 Mitigation of Cumulative Effects

Vegetation and Wildlife Habitat

The impacts of the proposed project and other transportation projects to vegetation and wildlife habitat would be avoided and minimized in compliance with the TxDOT–TPWD MOU. The impacts of induced development and reasonably foreseeable private development to vegetation and habitat would be avoided, minimized, and mitigated through enforcement of applicable municipal zoning and land use regulations. Additionally, USFWS and TPWD regulations would apply for those actions that are subject to state and federal jurisdiction. Formal consultation with the USFWS regarding effects to the federally listed plant species within the SL 195 project area was complete on July 17, 2019. The resulting Biological Opinion issued by the USFWS identifies the federal requirements for avoidance, minimization, and mitigation requirements for the applicable species. An outline of these requirements is included in **Section 8.0** below. Based on the availability of wildlife habitat in the RSA, and assuming appropriate implementation of regulated avoidance and minimization strategies for vegetation and habitat impacts, the proposed project would not contribute to substantial cumulative impacts to the area's vegetation and habitat, and mitigation would not be necessary.

Federally Listed Threatened/Endangered Species

Federally listed threatened or endangered species or their habitats are protected by the Endangered Species Act. Any developers undertaking actions that could affect federally listed species would be responsible for coordinating with the USFWS to determine appropriate mitigation measures. Formal consultation with the USFWS regarding effects to the federally listed plant species within the SL 195 project area was complete on July 17, 2019. The resulting Biological Opinion issued by the USFWS identifies the federal requirements for avoidance, minimization, and mitigation requirements for the applicable species. An outline of these requirements is included in **Section 8.0** below. As mentioned

above, there are a number of critical habitat units identified within Starr County for the protection of Zapata bladderpods (**Figure 6** in **Appendix E**), and no effect to these units or the Lower Rio Grande Valley National Wildlife Refuge is anticipated as a result of direct, indirect, or cumulative impacts from this project.

Under the No-Build Alternative, no cumulative impacts would be anticipated.

5.17 Construction-Phase Impacts

Access to parcels in the project vicinity would be maintained during all phases of construction. All practicable steps would be taken to minimize the inconvenience to drivers using the intersecting roadways during the construction phase. People living and working in the immediate area of the proposed project may experience an increase in noise and dust due to the construction activities. Temporary detours would also be required in the project area to assist with diverting traffic through surrounding areas while certain areas are under construction. See **Section 5.12** for the discussion of construction-related air emissions. The following construction-phase BMPs would be utilized:

- Vegetation BMPs:
  - Minimize the amount of vegetation cleared. Removal of native vegetation, particularly mature native trees and shrubs, should be avoided to the greatest extent practicable.
  - The use of any non-native vegetation in landscaping and revegetation is discouraged. Locally adapted native species should be used.
- Water Quality BMPs:
  - Once construction is complete and disturbed areas have been revegetated, remove silt fence and accumulated sediment to reduce wildlife barriers and hazards.
- Species BMPs (listed in **Section 5.11.11**)

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receptors is expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. 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.

Under the No-Build Alternative, construction activities would not occur; therefore, temporary construction impacts would not occur.

6.0 Agency Coordination

TxDOT coordinated with the THC/SHPO, Starr County Historical Commission (CHC), Comanche Tribe, Tonkawa Tribe, and Apache and the Thlopthlocco Tribal Town regarding cultural and archeological resources (see **Table 7** and **Appendix F—Agency Coordination**). Final coordination with the THC for relocation of the historic marker is ongoing. USFWS coordination was conducted to address effects to federally listed plant species. Coordination with TPWD was conducted for impacts to vegetation and SGCN and state-listed species. Coordination has also been initiated with the USACE. Coordination with TCEQ will be initiated at the completion of this draft Environmental Assessment.

Table 7: Agency Coordination Summary

Agency	Date Initiated	Date Closed	Status
TCEQ	---	---	Pending
THC/SHPO	12/20/2006	12/20/2006	Pending
	12/12/2018	12/13/2018	
	7/19/2018	7/19/2018	
	1/09/2019	1/18/2019	
	1/10/2019	1/18/2019	
	3/11/2020	4/24/2020	
	6/22/2020	--	
TPWD	November 5, 2018	March 22, 2019	Complete
Tribal Entities	February 16, 2017	March 27, 2017	Complete
	January 4, 2019	January 7, 2019	Complete
USACE	April 26, 2018	---	Pending
USFWS	October 29, 2018	July 17, 2019	Complete

7.0 Public Involvement

Initial public involvement efforts for the project were held in 2000 and 2004. The first public meeting was held on February 2, 2000 at the Roma Community Center in Roma, Texas. Public workshops were also held at the Roma Community Center in Roma and the Rio Grande City Hall in Rio Grande City in 2004 from December 7–10. Verbal and written comments were provided by members of the public and TxDOT responded to each in writing.

In addition, two public meetings were held in February of 2017: one at Roma Community Center on February 16, 2017, and the second at South Texas Community College Auditorium in Rio Grande City on February 21, 2017. An open house format with exhibit boards and schematics was used to present the proposed project along with a formal presentation, and public input was invited regarding the need for the project and suggested alternatives for the project. Comments received as a result of the public meeting concerned roadway connectivity, economic and residential growth, and drainage and water conveyance (TxDOT 2017d). No changes were made to the project as result of these meetings. The Public Meeting Documentation may be inspected and copied upon request at the TxDOT Pharr District

Office (600 W. I2, Pharr, TX 78577), is available on the TxDOT website (www.txdot.gov; keyword: SL195 from 755 to US 83), and is also located in TxDOT's Environmental Compliance Oversight System.

A public hearing will be held in 2020, following approval for further processing of this EA document.

Because the project involves construction of a highway on new location, 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 sign or signs posted in the ROW, mailed notice, printed notice distributed by hand, or notice via website when the recipient has previously been informed of the relevant website address. This notice must be provided after the environmental decision (i.e., a finding of no significant impact or recommendation to prepare an environmental impact statement), but before earthmoving or other activities requiring the use of heavy equipment begin.

8.0 Post-Environmental Clearance Activities and Contractor Communications

All project-specific commitments and conditions of approval, including resource agency permitting compliance and monitoring requirements, would be incorporated in the project plan for the proposed project. These commitments and conditions of approval may vary depending on the project's final design and construction. Mitigation monitoring would be conducted by TxDOT and other federal, state, and local agencies to ensure compliance.

8.1 Post-Environmental Clearance Activities

1. USACE NWP #14 (timeframe: prior to construction)
2. TPDES (timeframe: during and after construction)
    a. Construction General Permit
    b. SW3P
    c. Site Notice
    d. NOI
    e. Implementation of erosion control, sedimentation control, and post-construction TSS control BMPs for the TCEQ's 401 Water Quality Certification Conditions for NWPs to prevent water quality impacts from occurring during and after construction.
3. Implementation of BMPs for state-listed species and SGCNs will be implemented (timeframe: prior to and during construction). State-listed and SGCN species include the black-spotted newt, Mexican treefrog, sheep frog, South Texas siren (large form), white-lipped frog, northern cat-eyed snake, reticulate collared lizard, Texas horned lizard, Texas indigo snake, Texas tortoise, white-nosed coati, cactus ferruginous pygmy-owl, gray hawk, northern beardless tyrannulet, rose-throated becard, tropical parula, white-tailed hawk, wood stork, zone-tailed hawk, Spot-tailed earless lizard, Audubon's oriole, brown jay, Brownsville common yellowthroat, Mexican hooded oriole, western burrowing owl, and Plains spotted skunk.

4. EO 13112 on Invasive Species (timeframe: post-construction)
5. Executive Memorandum on Beneficial Landscaping (timeframe: post-construction)
6. MBTA (timeframe: prior to and during construction)
7. Voluntary Conservation Measures (VCMs) for potential effects to the Zapata bladderpod will be implemented (timeframe: prior to, during, and post-construction):
    a. Approximately 171 acres (approximately 24 percent of the project area) were not surveyed due to a lack of right-of-entry for private properties. Once the new right-of-way is purchased for the project, TxDOT commits to surveying the remaining 171 acres for federally listed plants. Surveys will be conducted during the flowering period immediately prior to construction or during the flowering period immediately following right-of-entry, whichever occurs first. TxDOT will consult with the Service if any federally endangered plant species, including Walker's manioc and/or star cactus, are found in subsequent plant surveys that will be conducted on properties after TxDOT obtains right-of-entry.
    b. If federally listed plants are identified within the remaining acreage, TxDOT will attempt to realign the limits of construction to avoid or minimize impacts to new plant populations, as practicable within the proposed right-of-way. Additionally, GPS data will be collected for any new federally listed plants identified during future surveys and reported to TPWD using a Texas Natural Diversity Database (TxNDD) reporting form. New locations of federally listed plant species will also be provided to the Service State Botanist and to the Service Texas Coastal Ecological Services Field Office.
    c. During construction, orange barrier fencing will be installed to prevent construction equipment from impacting the 2017 mapped population and watering for dust control will occur once per day within 120 feet of this location. If any additional endangered plant populations are identified during future survey efforts, orange barrier fencing will be installed to protect or minimize construction impacts to new populations, as practicable. TxDOT will provide a minimum distance of 10-foot buffer between the orange barrier fencing used during construction and the plant population to protect plants, provided this distance is feasible. There may be instances in which this may not be feasible, for example when the plant population falls within 10 feet of the roadway footprint. Dust control watering will occur around any newly identified populations. Biological monitors will be at the construction sites during the placement of BMPs for endangered plants.
    d. After construction, in order to protect endangered plants and retain their habitat, a buffer zone of up to 50 feet will be created around a restricted right-of-way activity zone/restricted mow zone for all known populations of federally listed plants. For the Zapata bladderpod population (**Figure 5**), mowing will be restricted to between June and January, thus avoiding what is considered to be the active growing season for this

species. Additionally, a six-inch mowing height will be required for these areas to avoid damaging any late-flowering or early growing plants. If additional species are identified during future surveys, the mowing restriction will be adapted to the species-specific growing period. Appropriate signage will be installed to alert maintenance staff to the mowing restrictions or access restrictions at the site. No herbicides will be utilized within the restricted activity/mow zone.

e. TxDOT will avoid impacts to federally listed species to the extent practicable. However, should an endangered plant be affected by the project, TxDOT will relocate affected individuals to an area within a protected portion of the right-of-way and/or will conduct a plant rescue and have rescued individuals transported to a suitable plant center, as practicable. This work will be conducted with the assistance of USFWS to ensure all translocation requirements are met, such as necessary handling permits. A relocation plan for Zapata bladderpod is included in the Biological Assessment.

f. For the Project Specific Locations (PSLs) located outside the existing and proposed right-of-way, TxDOT will include specific working stipulations in the construction plans to survey for endangered species. If listed plants are identified at PSL locations, they will be protected or an alternate PSL will be utilized. The District Environmental Quality Control Coordinator will review the selection of PSLs.

g. Natural vegetation communities will be allowed to re-establish in areas that are disturbed during construction but not converted to pavement, thus potentially retaining habitat for the endangered plants to re-establish in the right-of-way. No seed mixes will be used in areas of right-of-way where any endangered plants are found, so that natural vegetation would be given the opportunity to recolonize the area.

h. In accordance with the Executive Memorandum on Environmentally and Economically Beneficial Landscaping Practices and Executive Order 13112 on Invasive Species, landscaping will be limited to re-seeding with TxDOT-approved regional seed mix and replanting the right-of-way with native plant species where practicable in areas that are not known to contain endangered plants.

i. Standard TxDOT stormwater BMPs to protect the surface soil from erosion during both the construction and operation phases of the roadway will be utilized.

8. The traffic noise analysis and air quality technical report will be made available to local officials (timeframe: prior to construction).

9. Vegetation BMPs (timeframe: prior to, during, and after construction):

   a. Minimize the amount of vegetation cleared. Removal of native vegetation, particularly mature native trees and shrubs should be avoided to the greatest extent practicable.

   b. To minimize adverse effects, activities should be planned to preserve mature trees, particularly acorn, nut or berry producing varieties. These types of vegetation have high value to wildlife as food and cover.

c. The use of any non-native vegetation in landscaping and revegetation is discouraged. Locally adapted native species should be used.

d. The use of seed mix that contains seeds from only locally adapted native species is recommended.

e. Avoid vegetation clearing activities during the nesting season to minimize adverse impacts to birds. Nesting season is recognized at the TxDOT Pharr District as February 15th to October 1st.

8.2 Contractor Communications

1. MBTA compliance
2. BMP compliance for state-listed species and SGCNs, water quality, and vegetation (9a-e).
3. In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area will cease, and TxDOT archeological staff will be contacted to initiate post-review discovery procedures.
4. Implementation of fugitive dust control measures
5. Any unanticipated hazardous materials and/or petroleum contamination encountered during construction would be handled according to applicable federal and state regulations per TxDOT Standard Specifications.
6. VCMs for Zapata bladderpod (7c, 7g, 7h, and 7i)

9.0 Conclusion

Implementation of the proposed project would not result in a significant impact on the human or natural environment. Therefore, a finding of no significant impact is recommended.

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Appendix A—Project Location Map

Appendix A

Project Location (Aerial Base)

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Project Location

0 6,000 Feet

0 1.5 Kilometers

Prepared for: TxDOT	1 in = 6,000 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:72,000
	Date: 12/21/2018

Aerial Source: TNRIS (2015)

G:\Projects\TXDOT\SL195\2018EA_AppendixA_Project Location_Aerial_20181218.mxd

Appendix B—Project Photos

Photo 1 – Facing west toward proposed SL 195 corridor from FM 755, at the project begin.

Photo 2 – Facing east from SL 195 corridor at FM 755.

Photo 3 – Facing east toward SL 195 corridor from Dump Road.

Photo 4 – House on east side of Dump Road, just south of the SL 195 corridor.

Photo 5 – Facing east toward J.J. Ranch at 2977 Dump Road, north of the SL 195 corridor.

Photo 6 – Facing west toward SL 195 corridor from FM 3167.

Photo 7 – Facing east toward a residence located just south of the proposed SL 195 on Alvarez Road.

Photo 8 – Facing west toward the Alta Vista Village subdivision at FM 649 and La Vista Street, south of proposed SL 195 roadway.

Photo 9 – Facing east toward El Mesquite, a convenience store on FM 649 (Potential Displacement 9).

Photo 10 – Facing east toward house adjacent to El Mesquite (Potential Displacement 8) on FM 649.

Photo 10 – Facing northwest toward Potential Displacement 7, located on FM 649 just east of Potential Displacement 8.

Photo 11 – Facing southwest toward Potential Displacement 10 on San Julian Road.

Photo 12 – Facing west toward Potential Displacement 12 from Nye Road.

Photo 13 – Facing northwest toward vegetation at SL 195 intersection with US 83 near project end.

Photo 14 – Shrubland within proposed right-of-way between Loma Blanca Road and Arroyo Roma

Photo 15 –Arroyo Roma within proposed right-of-way, with riparian vegetation visible

Photo 16 –Typical shrubland within proposed right-of-way between Arroyo Roma and Ebony Road

Photo 17 – Typical stock tank within project area

Photo 18 –Typical shrubland within proposed right-of-way between Ebony Street and Calle Ramos Road

Photo 19– Unnamed tributary to Arroyo Grande, typical ephemeral stream channel and surrounding vegetation through middle of project, between San Julian Road and FM 649

Photo 20 –Typical buffelgrass pasture through center of project area, viewing west from Alvarez Road

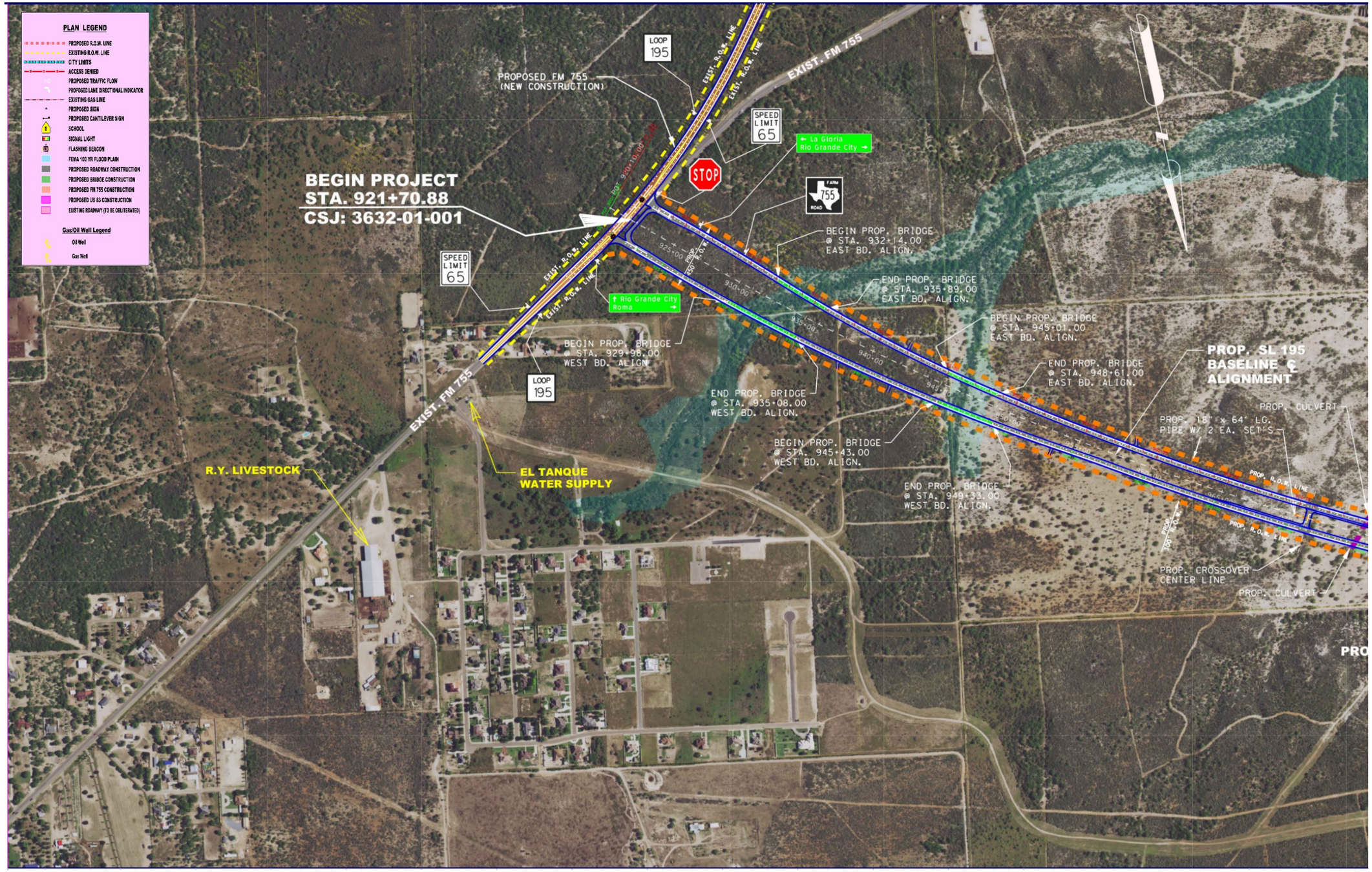
Photo 21 –Blackbrush shrubland viewing east from FM 3167

Photo 22 –Dense floodplain shrubland near Los Olmos Creek

Photo 23 –Los Olmos Creek, viewing north

Photo 24– Heavily grazed buffelgrass and mesquite shrubs west of FM 755

Appendix C—Schematics

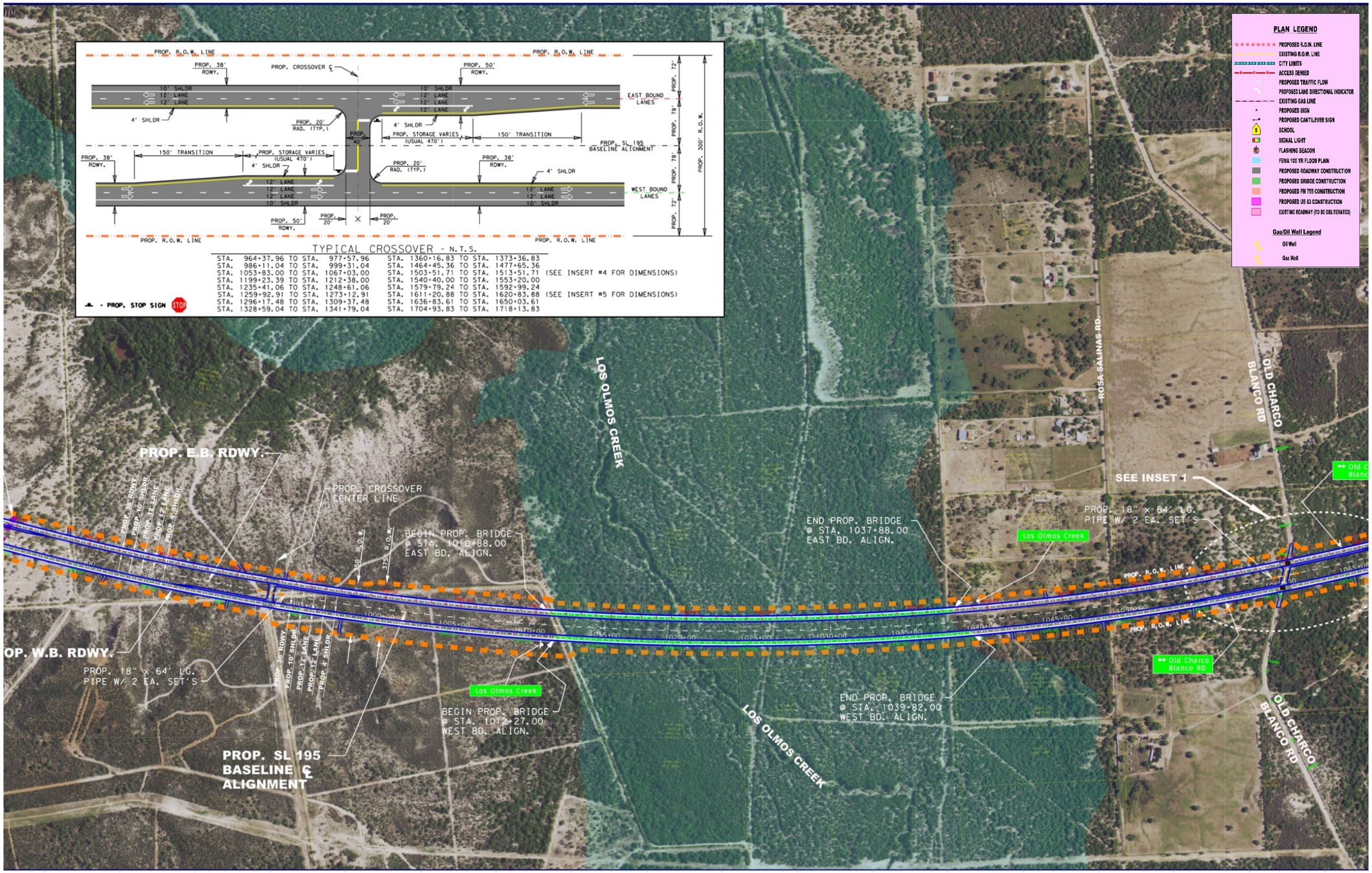


Appendix C – Sheet a

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003

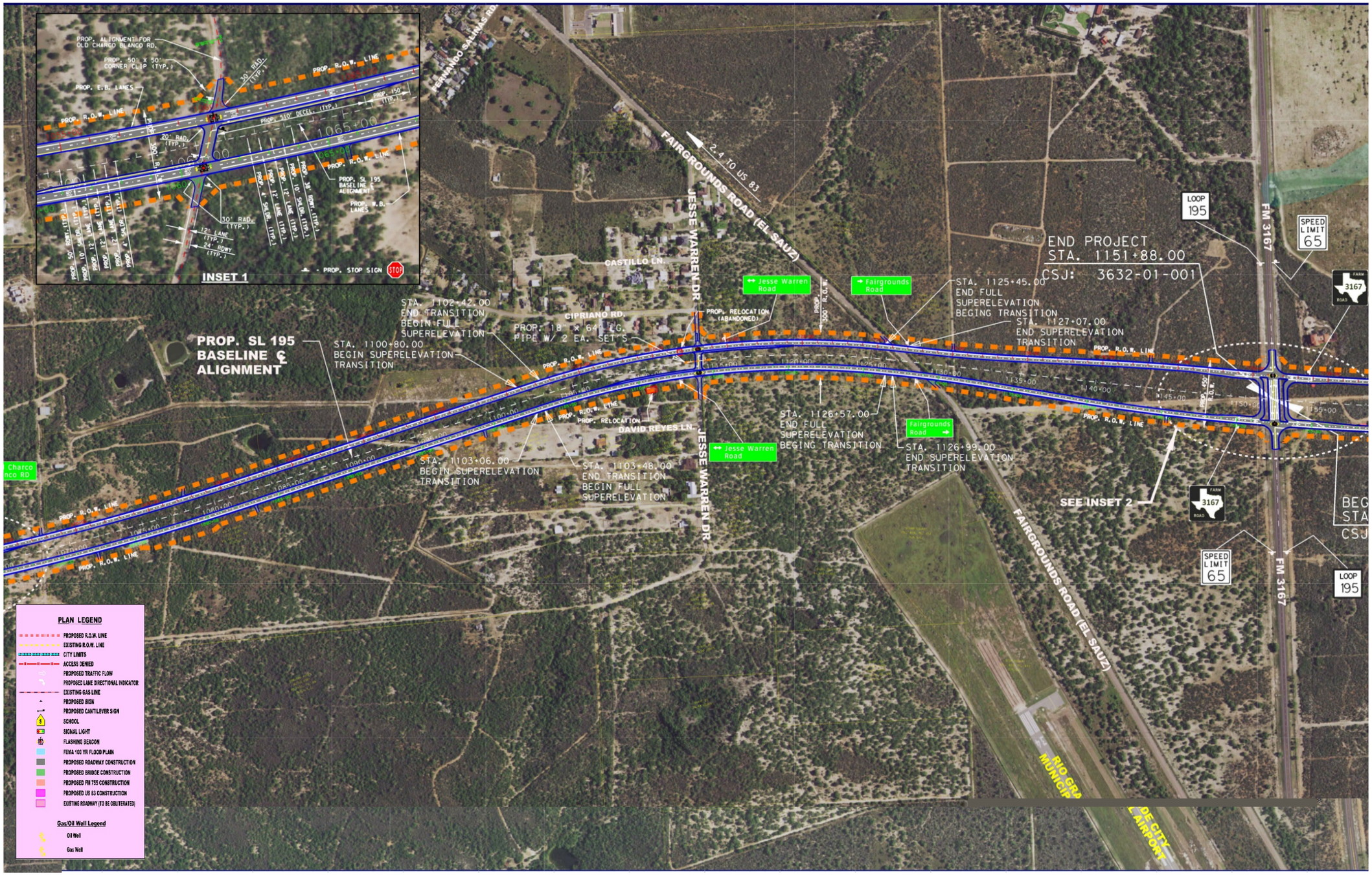


Appendix C – Sheet b

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003

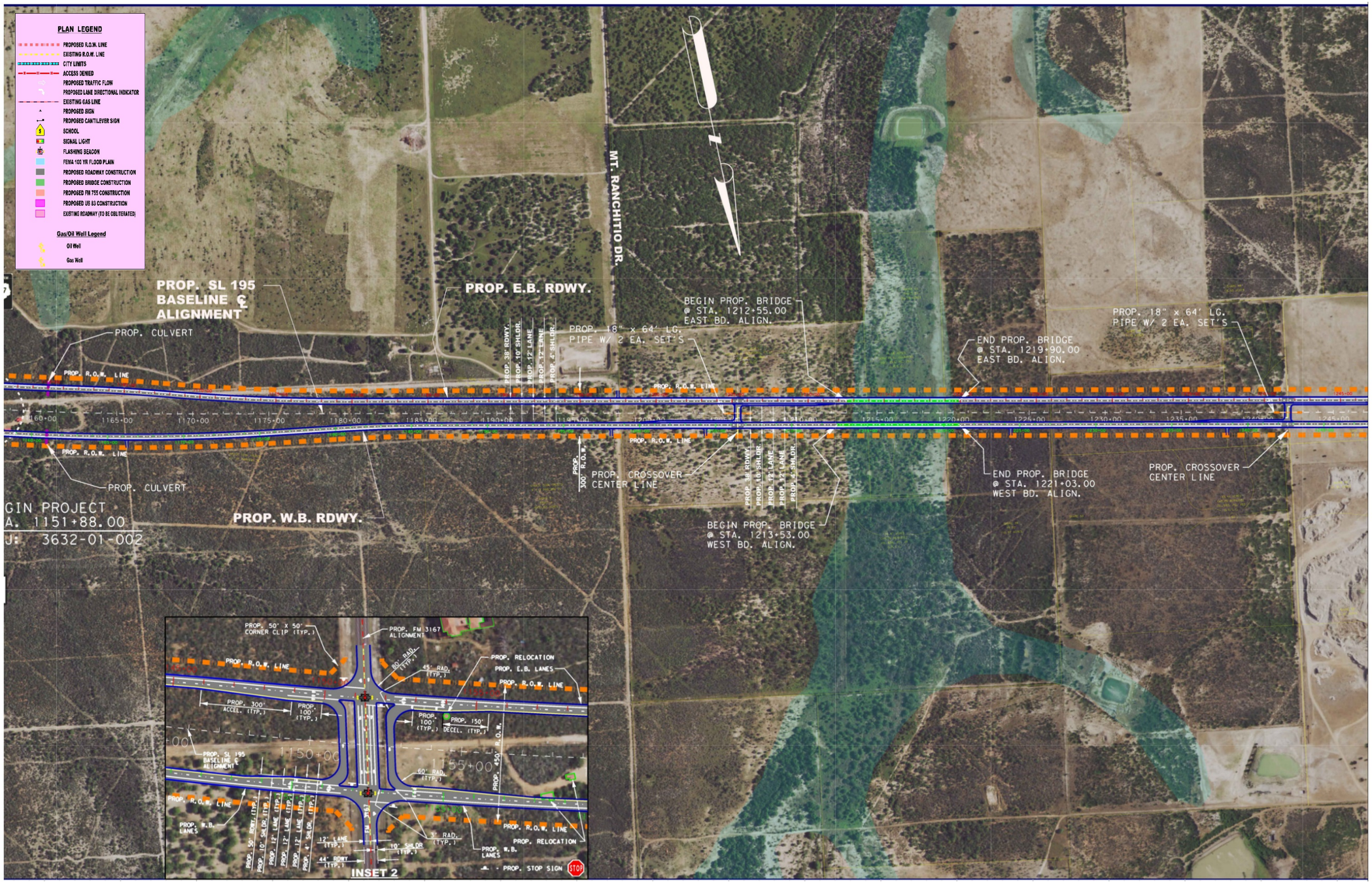


Appendix C – Sheet c

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003

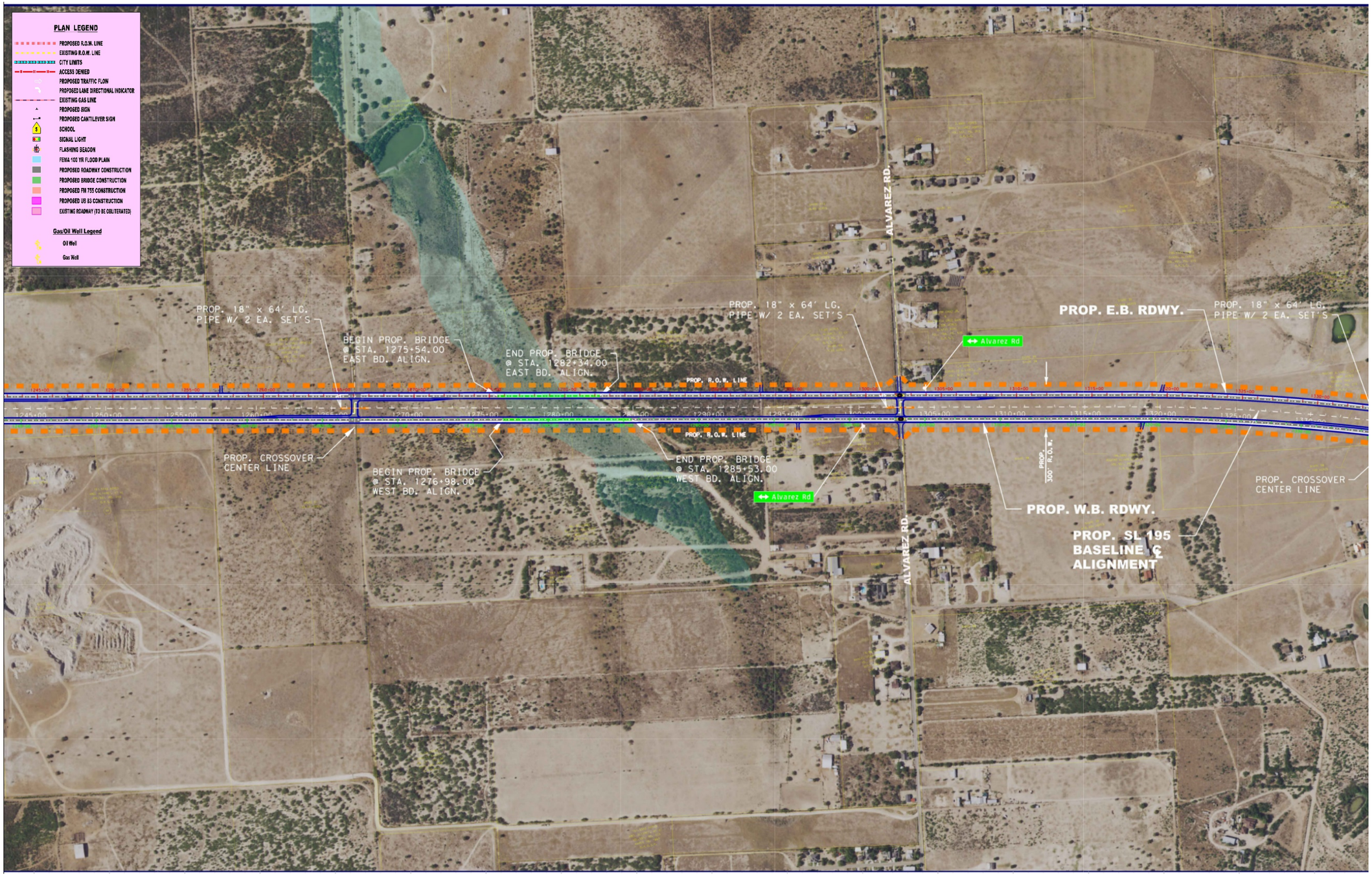


Appendix C – Sheet d

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003

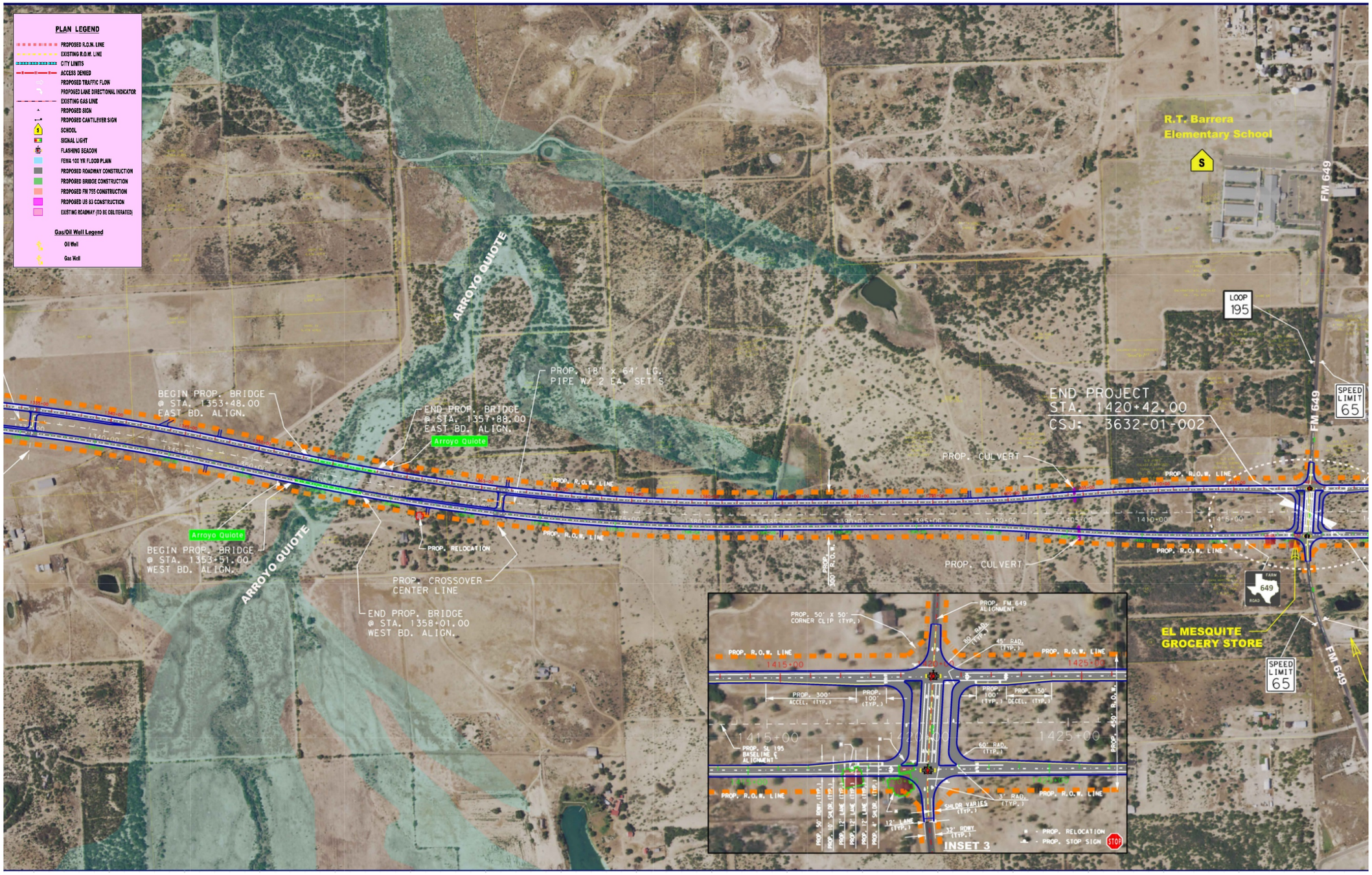


Appendix C – Sheet e

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003



Appendix C – Sheet f

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

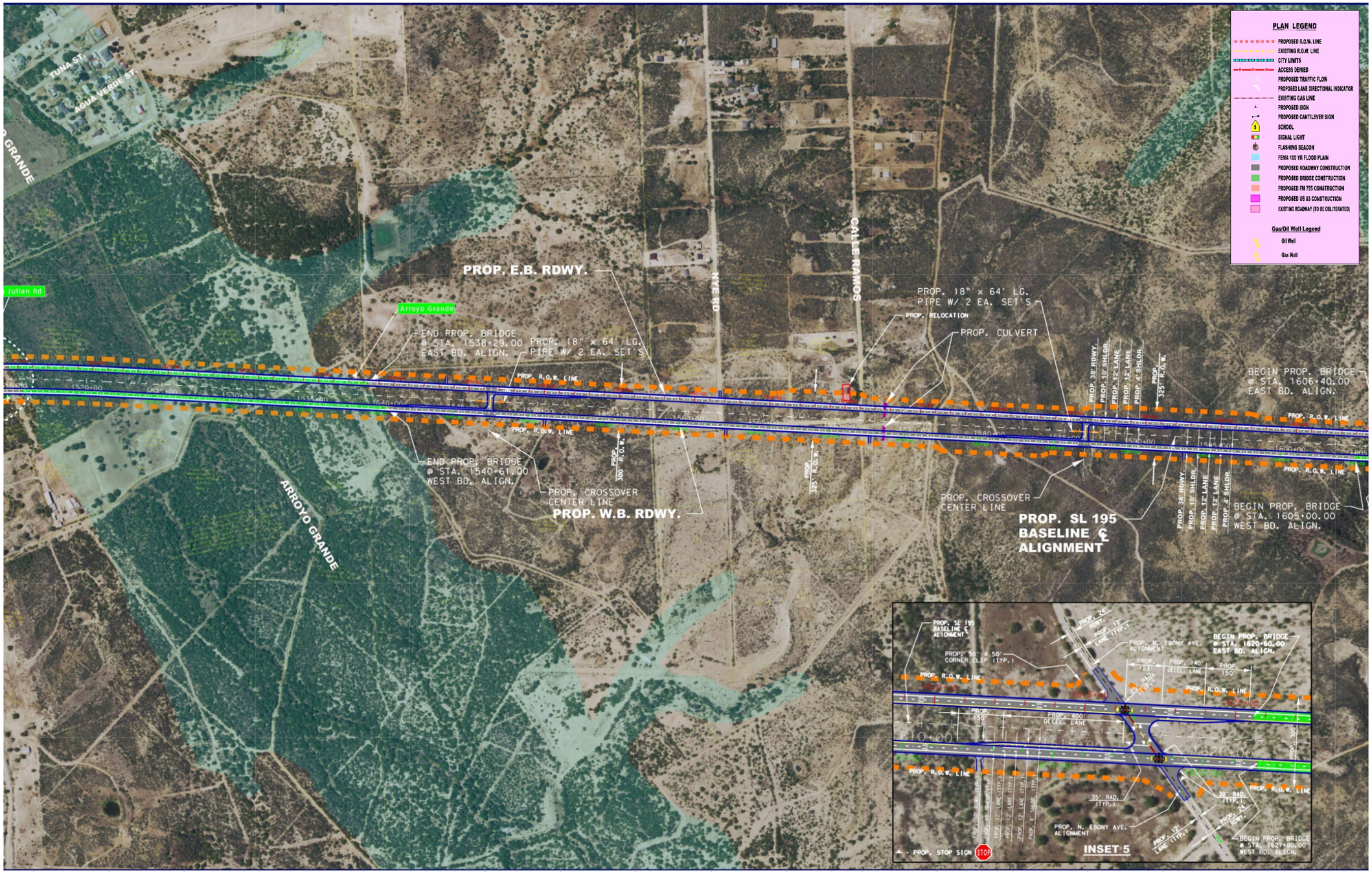
CSJ: 3632-01-001, 3632-01-002, 3632-01-003

Appendix C – Sheet g

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003

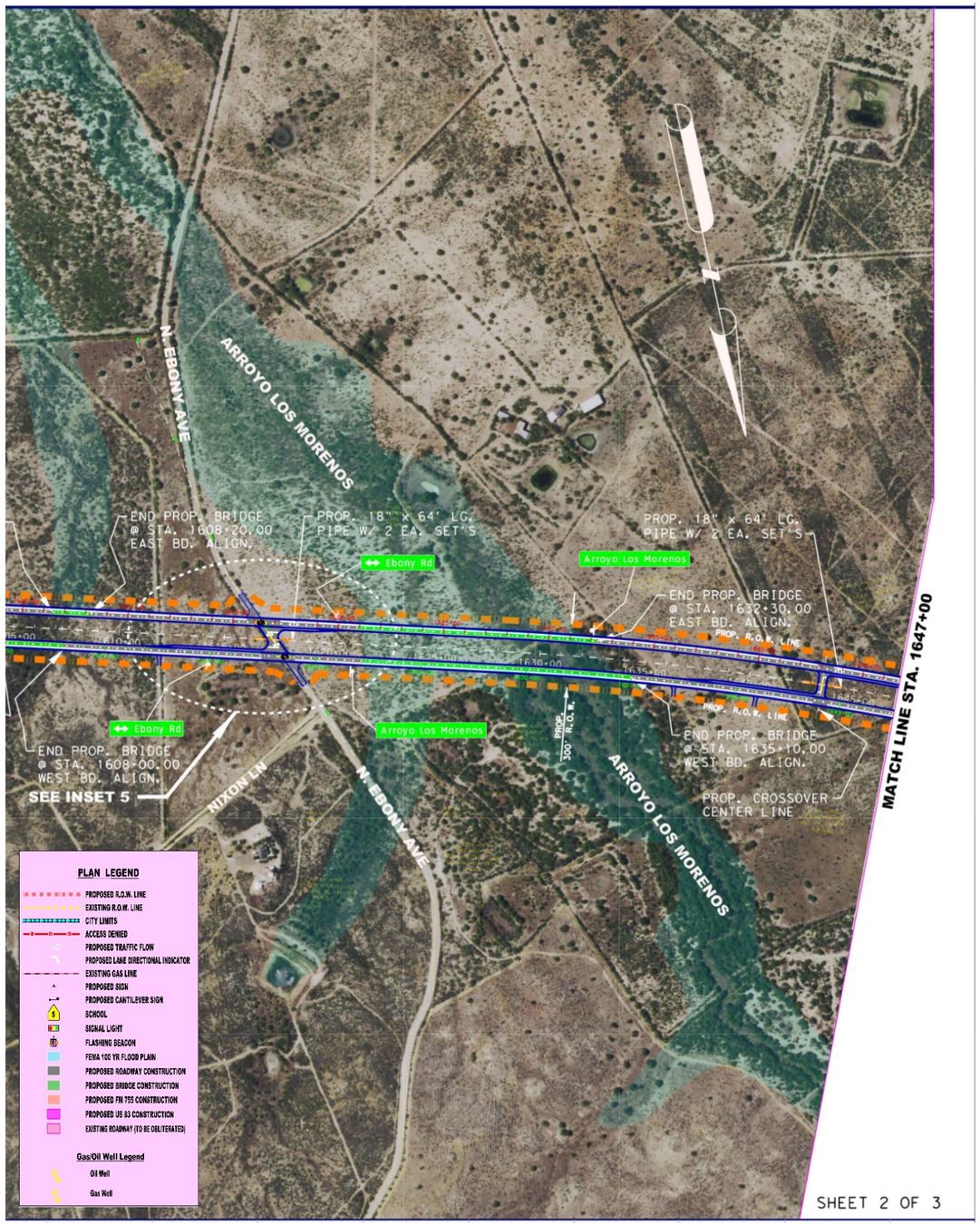


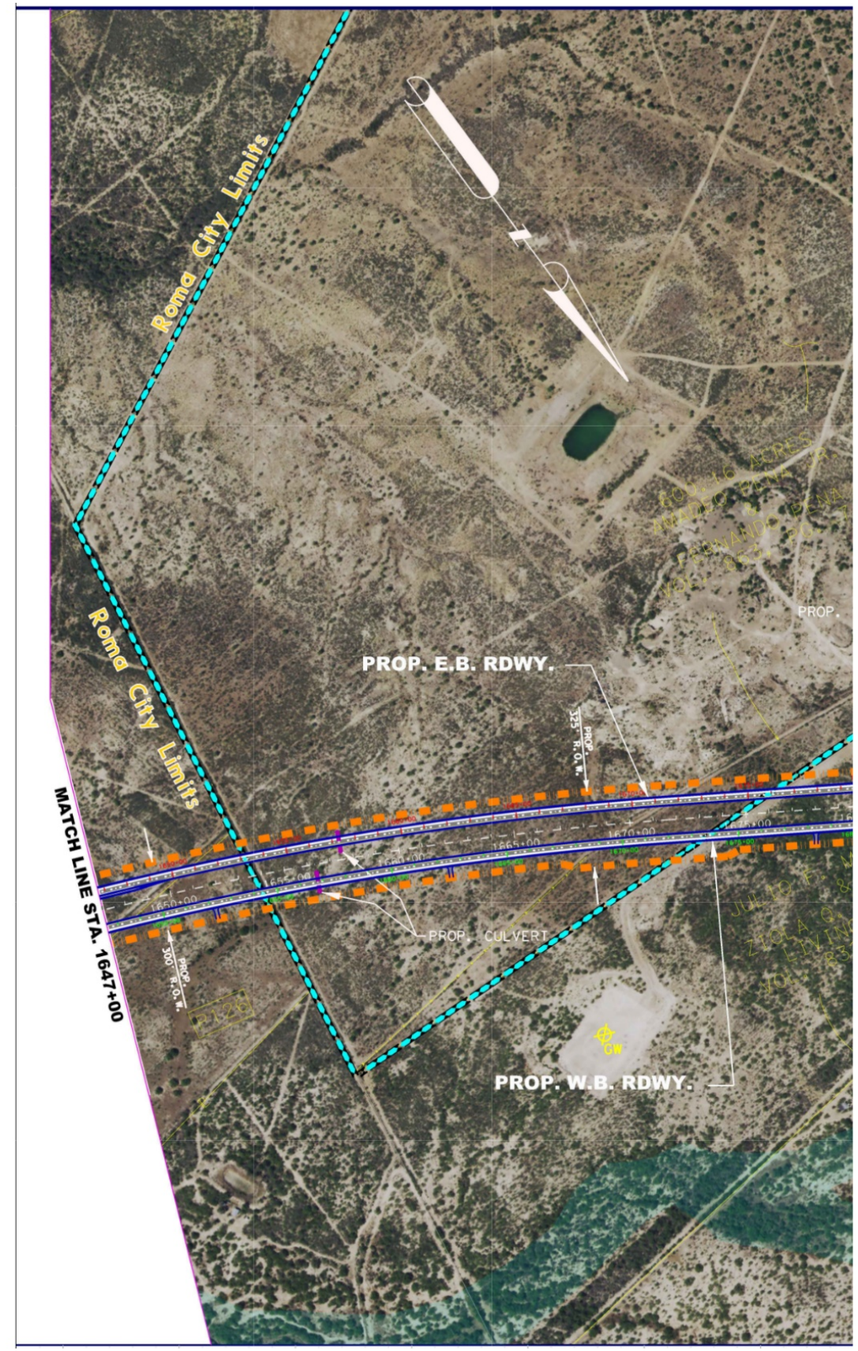
Appendix C – Sheet h

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003



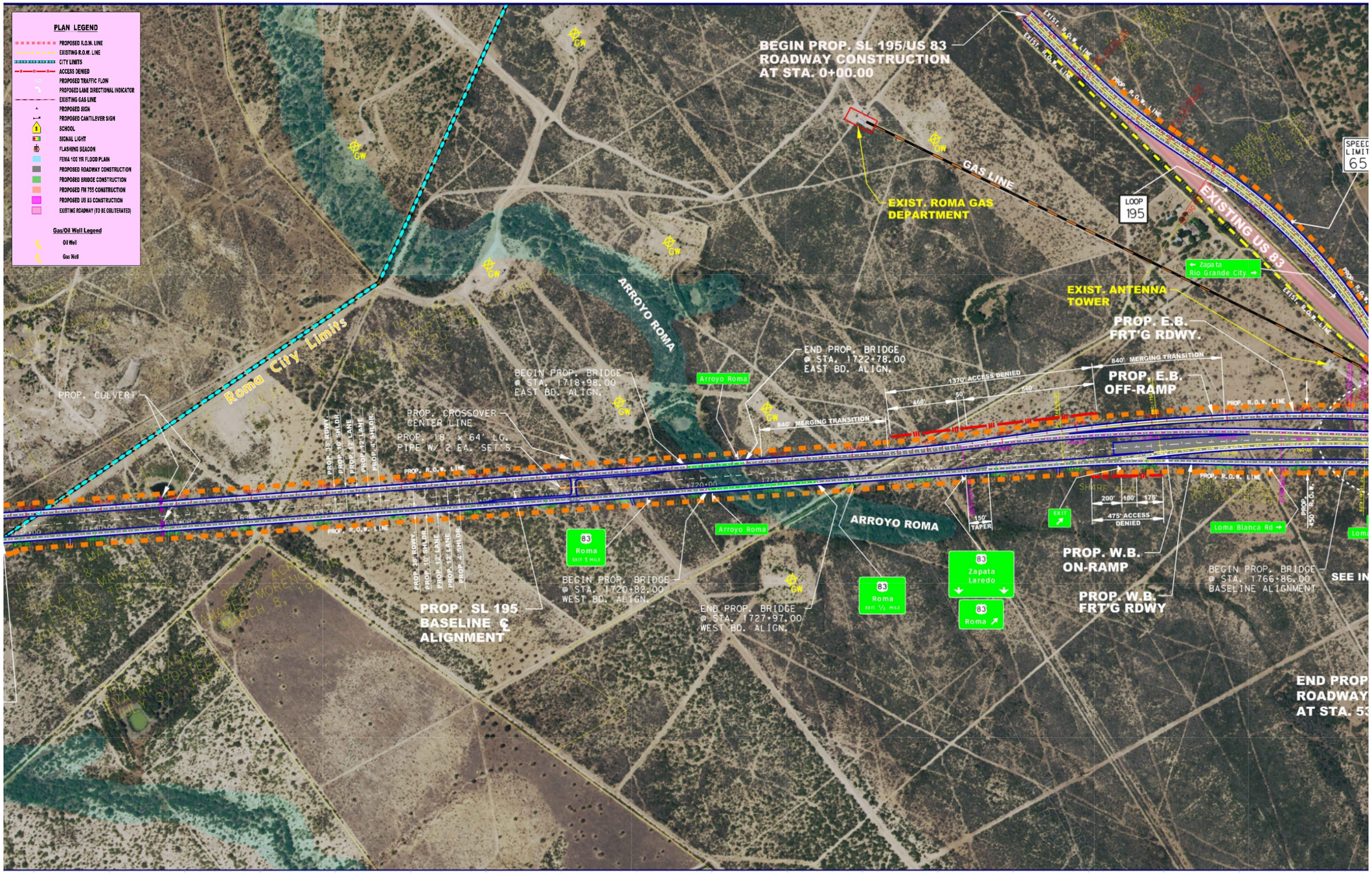


Appendix C – Sheet i

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003

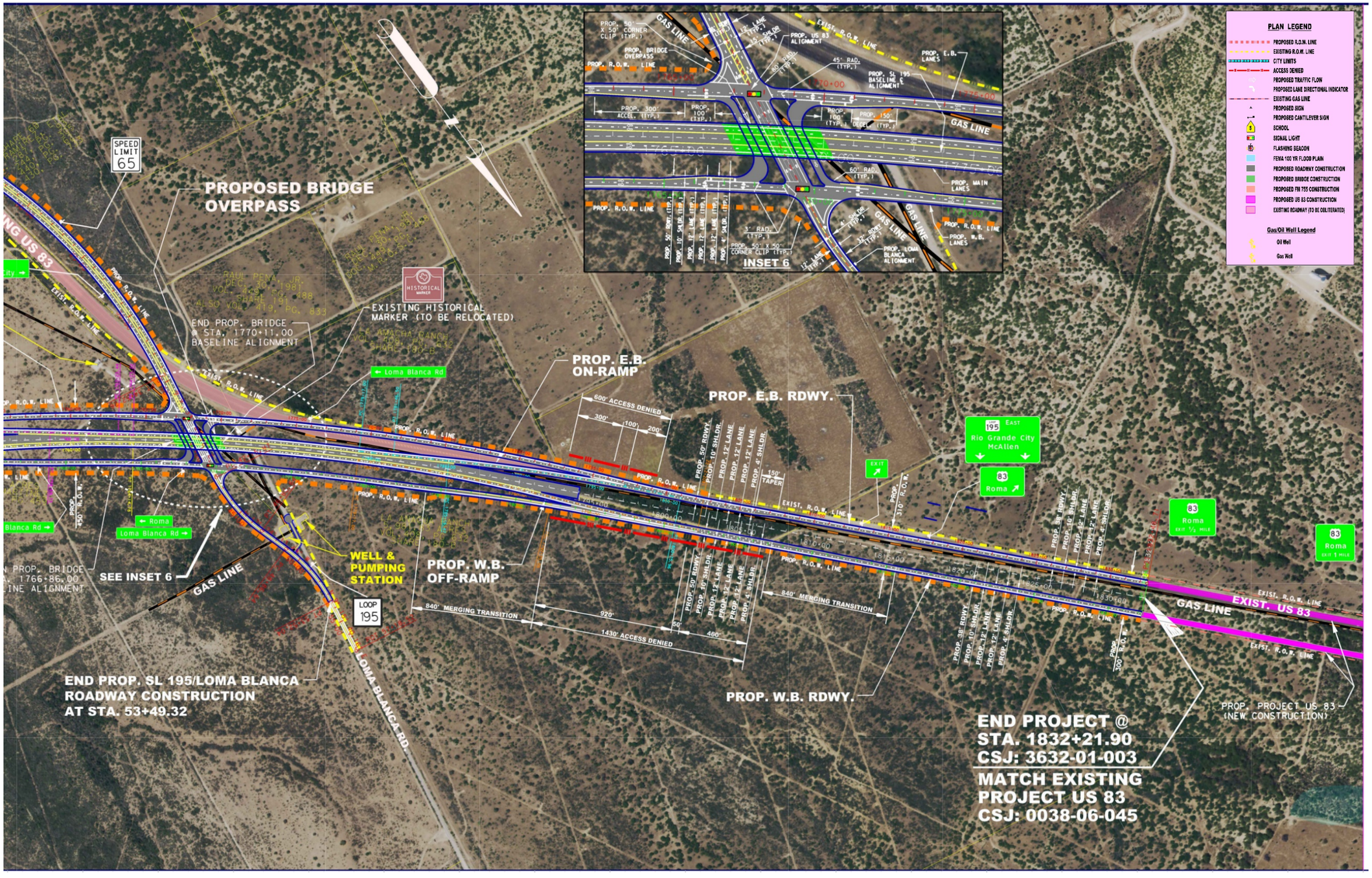


Appendix C – Sheet j

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003



Appendix C – Sheet k

Project Layout

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003

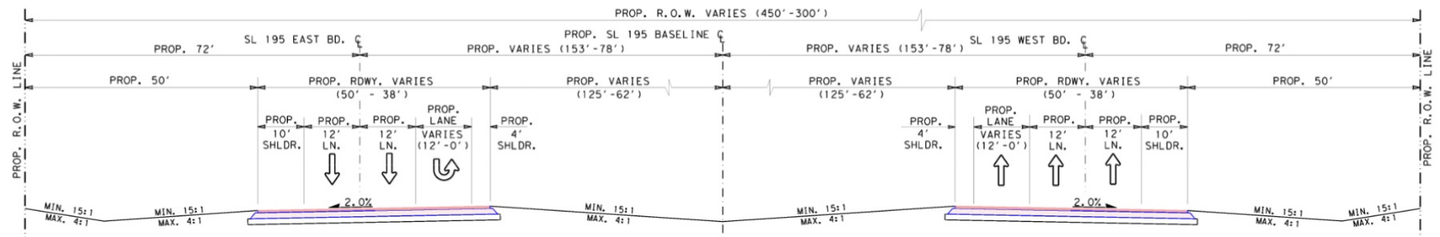
Appendix D—Typical Sections

DRAWN BY:	DATE:	SCALE: 1"=300'
CHECKED BY:	DATE:	PROJECT NO:
APPROVED BY:	DATE:	

FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.	SHEET NO.
6		3 OF 3

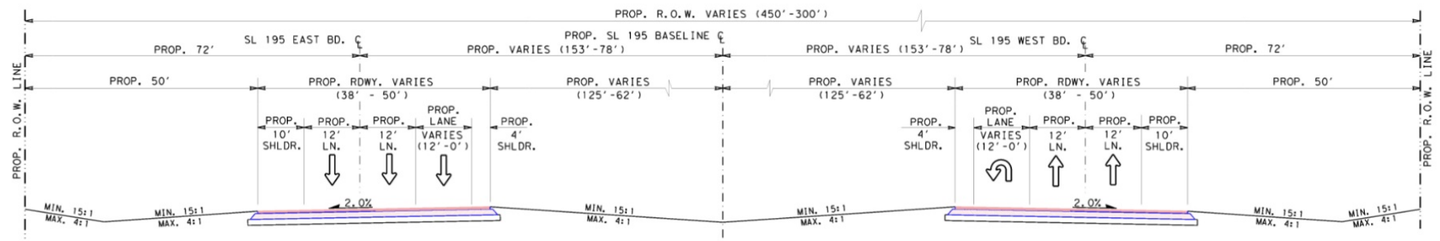
STATE	DIST.	COUNTY	
TEXAS	PHR	STARR	
CONT.	SECT.	JOB	HIGHWAY NO.
3632	01	001,ETC.	SL 195

SL 195 RIO GRANDE/ROMA RELIEF ROUTE



PROP. TYPICAL SECTION

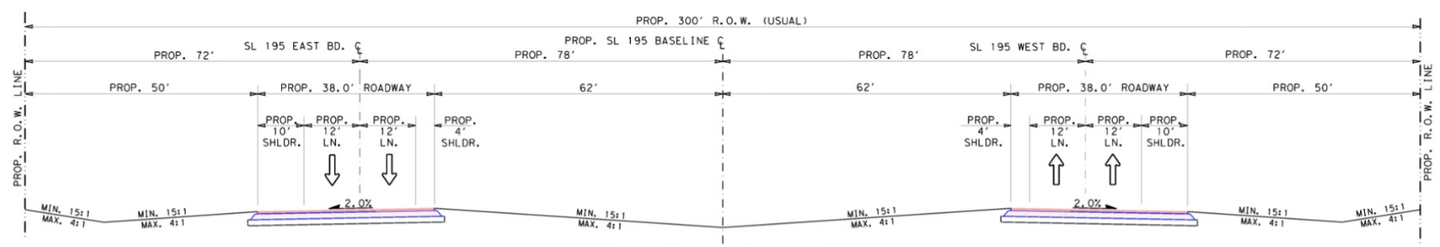
STA. 921+70.88 TO STA. 926+75.00 STA. 1421+95.67 TO STA. 1425+87.41
STA. 1153+45.30 TO STA. 1157+42.63



PROP. TYPICAL SECTION

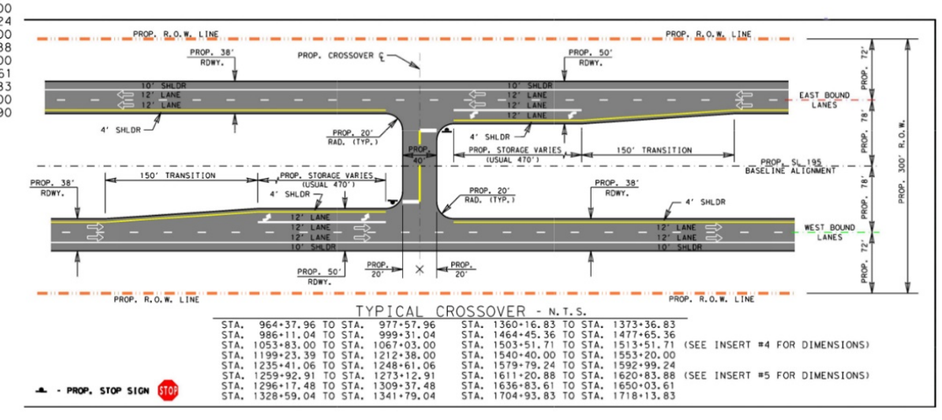
STA. 1146+27.69 TO STA. 1150+30.15 STA. 1726+60.00 TO STA. 1744+81.25
STA. 1415+00.00 TO STA. 1418+88.80

GAP AT INSECTIONS:
INTERSECTION OF SL 195/FM 3167 @ STA. 1150+30.15 TO STA. 1153+45.30
INTERSECTION OF SL 195/FM 649 @ STA. 1418+88.80 TO STA. 1421+95.67



PROP. TYPICAL SECTION

STA. 926+75.00 TO STA. 929+96.00	STA. 1273+12.91 TO STA. 1276+00.00	STA. 1503+20.00 TO STA. 1503+51.71
STA. 935+93.00 TO STA. 945+11.00	STA. 1284+91.00 TO STA. 1296+17.48	STA. 1513+51.71 TO STA. 1514+80.00
STA. 950+15.00 TO STA. 964+37.96	STA. 1309.37.48 TO STA. 1328+59.04	STA. 1553+20.00 TO STA. 1579+79.24
STA. 977+57.96 TO STA. 986+11.04	STA. 1341+79.04 TO STA. 1353+05.00	STA. 1592+99.24 TO STA. 1606+79.00
STA. 999+31.04 TO STA. 1011+26.00	STA. 1358+21.00 TO STA. 1360+16.83	STA. 1608+59.00 TO STA. 1611+20.88
STA. 1039+26.00 TO STA. 1053+83.00	STA. 1373+36.83 TO STA. 1415+00.00	STA. 1620+83.88 TO STA. 1621+30.00
STA. 1067+03.00 TO STA. 1146+27.69	STA. 1425+87.41 TO STA. 1455+00.00	STA. 1634+42.00 TO STA. 1636+83.61
STA. 1157+42.63 TO STA. 1199+23.39	STA. 1461+68.00 TO STA. 1464+45.36	STA. 1650+03.61 TO STA. 1704+93.83
STA. 1220+00.00 TO STA. 1235+41.06	STA. 1477+65.36 TO STA. 1477+41.00	STA. 1718+13.83 TO STA. 1719+13.00
STA. 1248+61.06 TO STA. 1259+92.91	STA. 1480+91.00 TO STA. 1492+85.00	STA. 1794+54.04 TO STA. 1832+21.90



TYPICAL CROSSOVER - N.T.S.

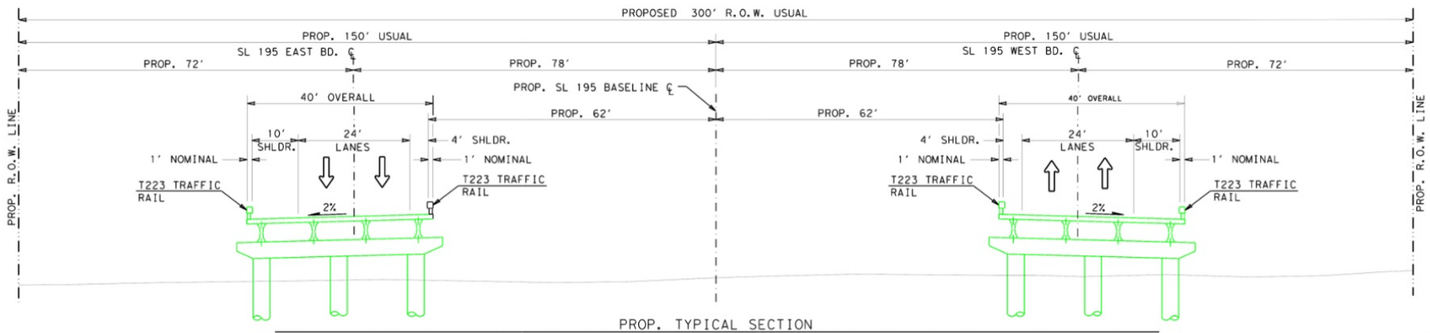
STA. 964+37.96 TO STA. 977+57.96	STA. 1360+16.83 TO STA. 1373+36.83	
STA. 986+11.04 TO STA. 999+31.04	STA. 1464+45.36 TO STA. 1477+65.36	
STA. 1053+83.00 TO STA. 1067+03.00	STA. 1503+51.71 TO STA. 1513+51.71	(SEE INSERT #4 FOR DIMENSIONS)
STA. 1199+23.39 TO STA. 1212+38.00	STA. 1540+40.00 TO STA. 1553+20.00	
STA. 1235+41.06 TO STA. 1248+61.06	STA. 1579+79.24 TO STA. 1592+99.24	
STA. 1259+92.91 TO STA. 1273+12.91	STA. 1611+20.88 TO STA. 1620+83.88	(SEE INSERT #5 FOR DIMENSIONS)
STA. 1296+17.48 TO STA. 1309+37.48	STA. 1636+83.61 TO STA. 1650+03.61	
STA. 1328+59.04 TO STA. 1341+79.04	STA. 1704+93.83 TO STA. 1718+13.83	

Appendix D – Sheet a

Project Typical Sections

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

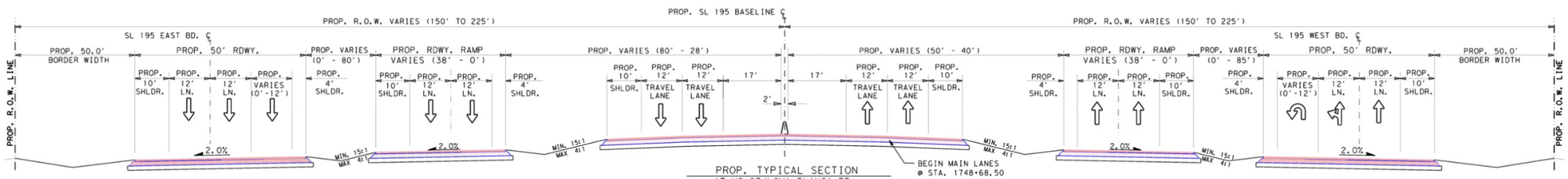
CSJ: 3632-01-001, 3632-01-002, 3632-01-003



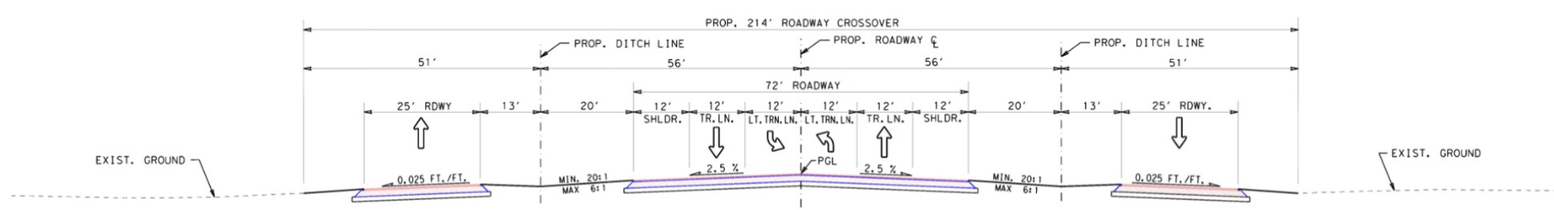
PROP. TYPICAL SECTION

STA. 929+96.00 TO STA. 935+93.00
STA. 945+11.00 TO STA. 950+15.00
STA. 1011+26.00 TO STA. 1039+26.00
STA. 1212+38.00 TO STA. 1220+41.00
STA. 1276+00.00 TO STA. 1284+91.00
STA. 1353+05.00 TO STA. 1358+21.00
STA. 1455+00.00 TO STA. 1461+68.00
STA. 1477+41.00 TO STA. 1480+91.00
STA. 1492+85.00 TO STA. 1503+20.00
STA. 1514+80.00 TO STA. 1540+00.00
STA. 1606+79.00 TO STA. 1608+59.00 *
STA. 1621+30.00 TO STA. 1634+42.00
STA. 1719+13.00 TO STA. 1726+60.00

* - PROPOSED BRIDGE STRUCTURE ON EAST BOUND DIRECTION ONLY AT THIS STATION, WEST BOUND TRAFFIC ON TYPICAL 38' ROADWAY.



PROP. TYPICAL SECTION
AT US 83/LOMA BLANCA RD.
STA. 1744+81.25 TO STA. 1764+17.40
STA. 1785+43.00 TO STA. 1794+54.04



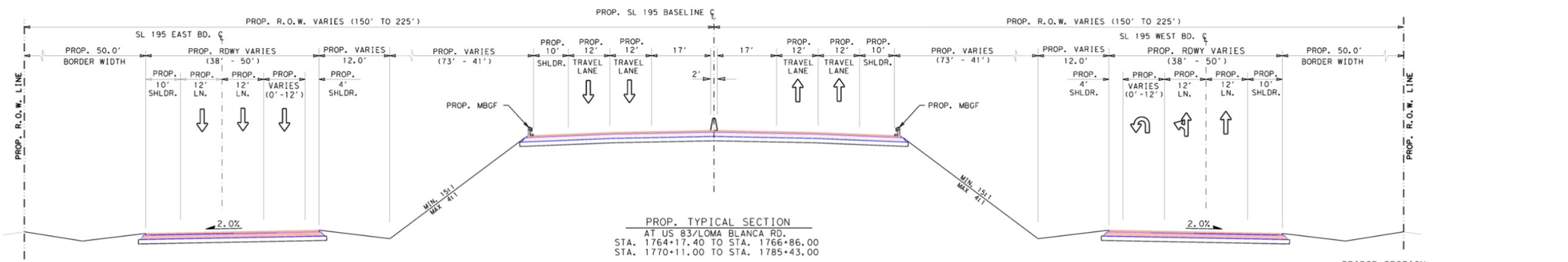
PROP. TYPICAL SECTION
FOR ROADWAY CROSSING
@ FM 3167 & FM 649

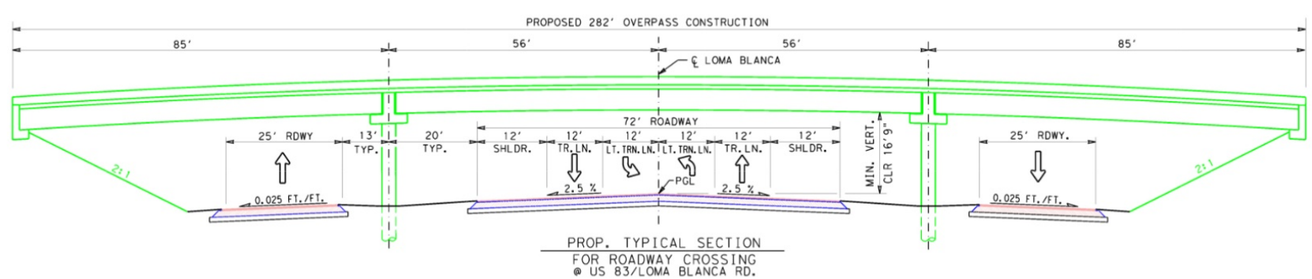
Appendix D – Sheet b

Project Typical Sections

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003





Appendix D – Sheet c

Project Typical Sections

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

CSJ: 3632-01-001, 3632-01-002, 3632-01-003

Appendix E—Resource-Specific Maps

Figure 1a–1f: Potential Displacements

Figure 2a–2b: Census Geographies

Figure 3a–3c: Water Resources

Figure 4a–4p: Observed EMST Vegetation Types

Figure 5a–5e: Area of Influence

Figure 6: Lower Rio Grande Valley National Wildlife Refuges and Critical Habitat Units

Figure 7: Resource Study Area for Vegetation and Wildlife Habitat

Figure 8a–8c: Resource Study Area for Federally Listed Threatened and Endangered Species

Figure 9: Recent, Planned, and Proposed Construction

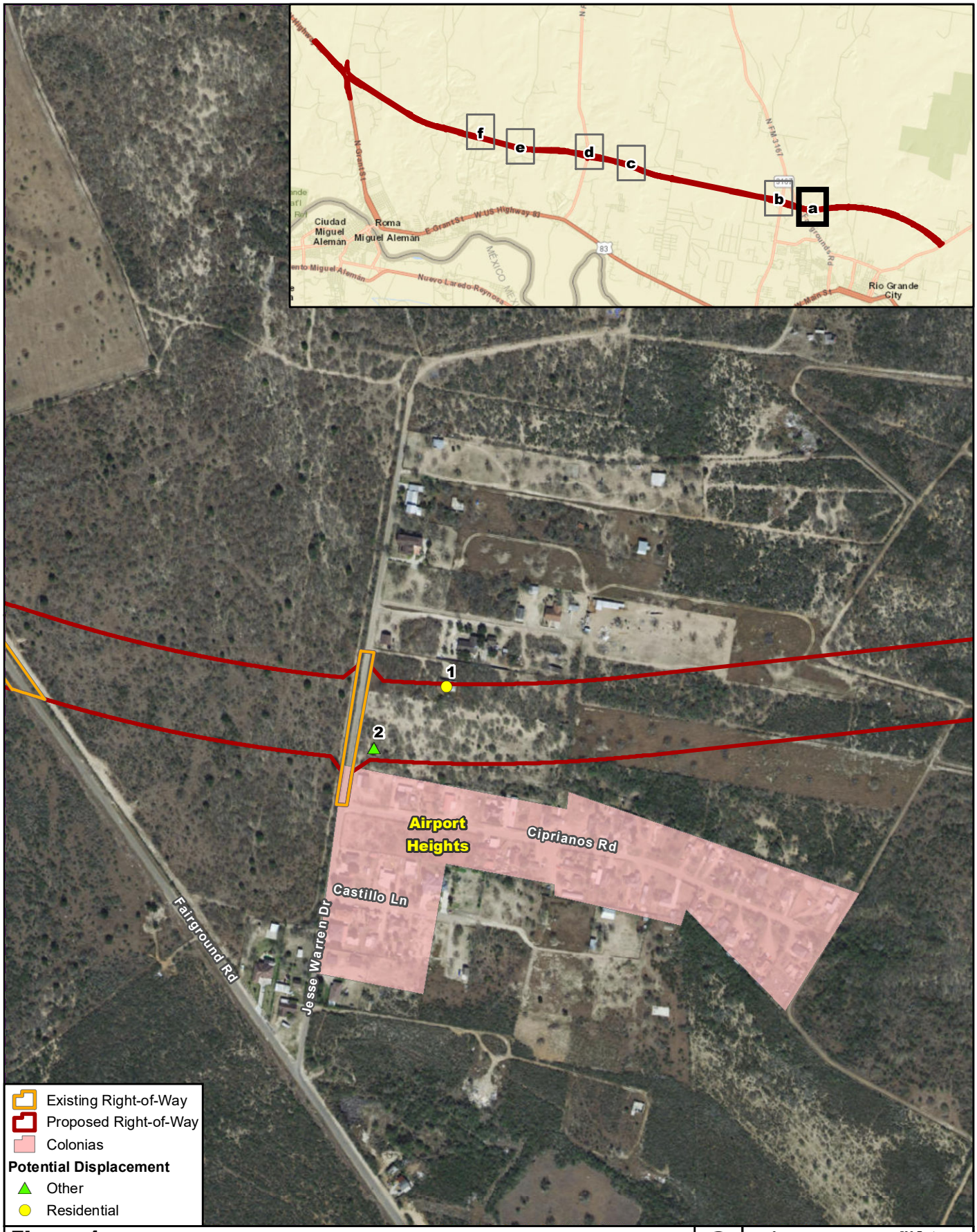


Figure 1a

Potential Displacements

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 500 Feet
0 150 Meters

Prepared for: TxDOT	1 in = 500 feet
CSJ: 3632-01-001, 3632-01-002,	Scale: 1:6,000
and 3632-01-003	Date: 12/21/2018

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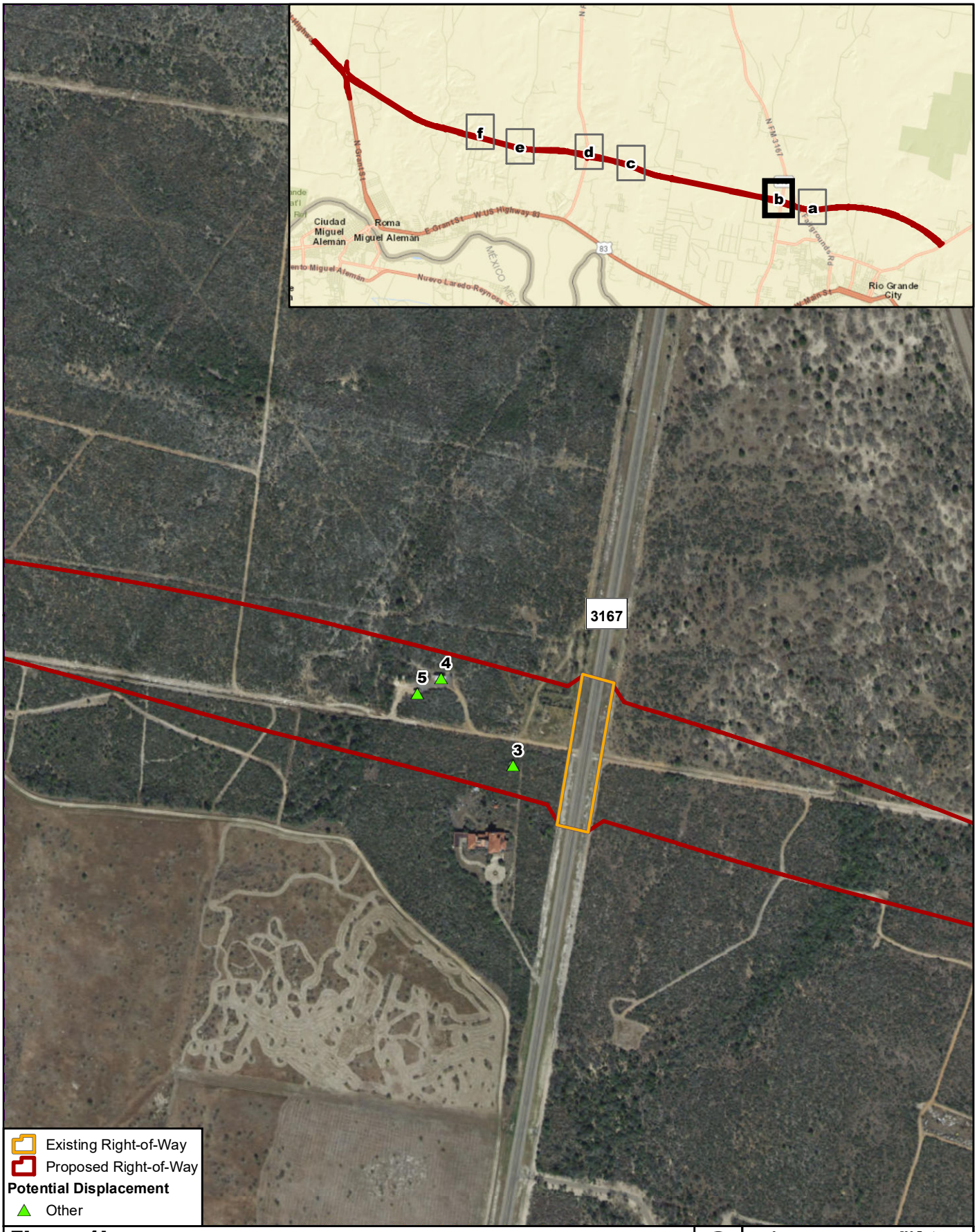

Figure 1b

Potential Displacements

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 500 Feet
0 150 Meters

Prepared for: TxDOT	1 in = 500 feet
CSJ: 3632-01-001, 3632-01-002,	Scale: 1:6,000
and 3632-01-003	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 1_Displacements_20181218.mxd

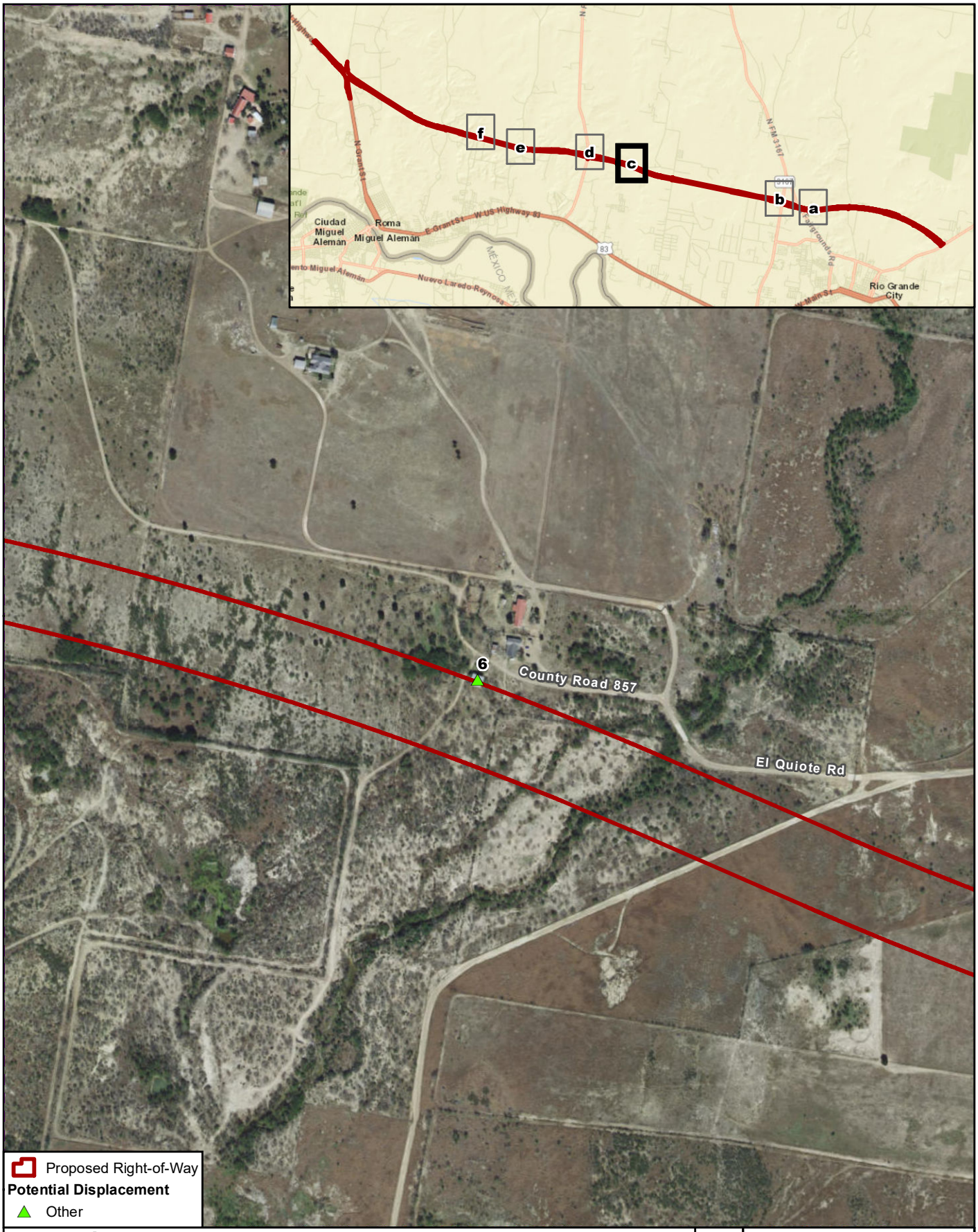

Figure 1c

Potential Displacements

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 500 Feet
0 150 Meters

Prepared for: TxDOT	1 in = 500 feet
CSJ: 3632-01-001, 3632-01-002,	Scale: 1:6,000
and 3632-01-003	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 1_Displacements_20181218.mxd

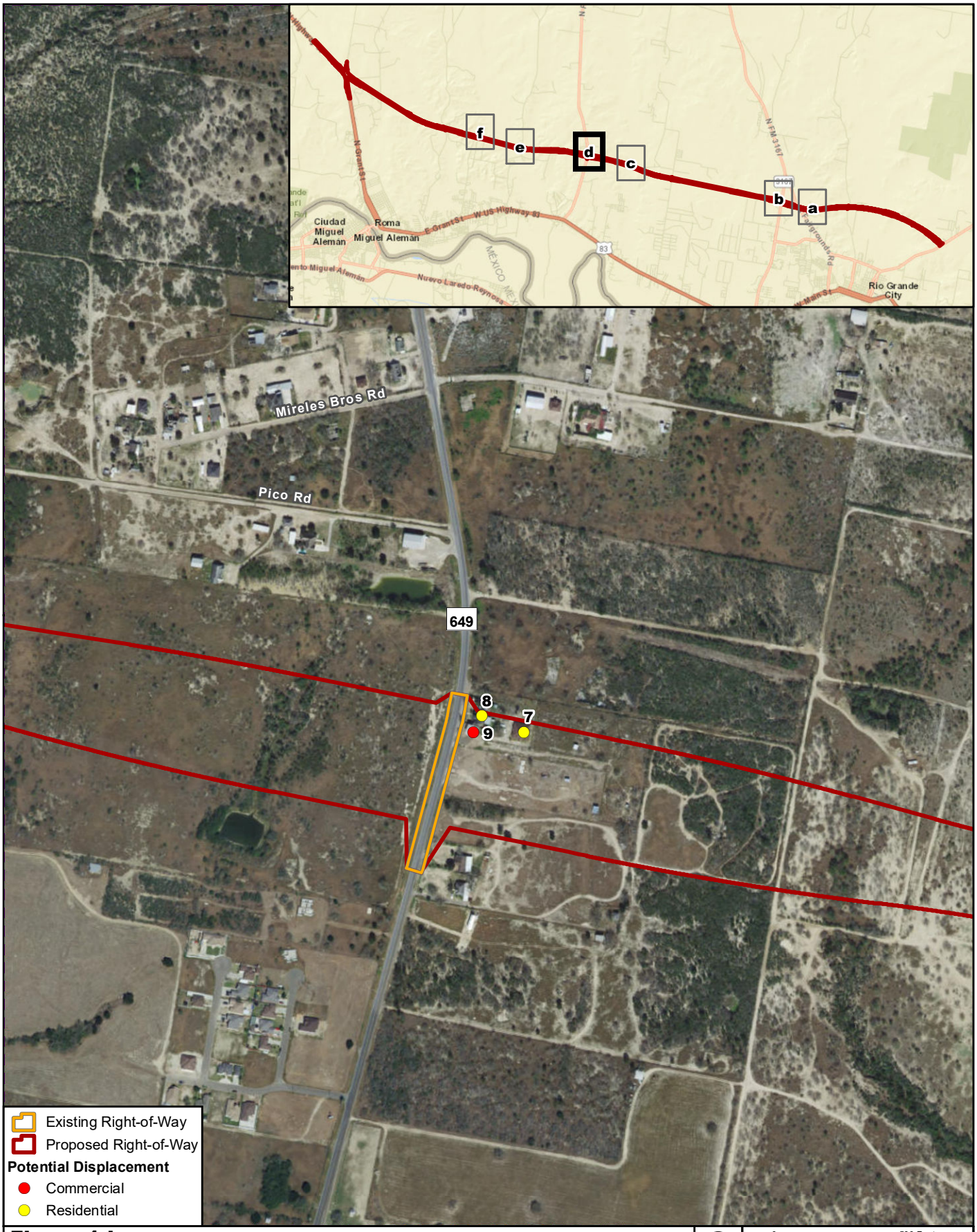

Figure 1d

Potential Displacements

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 500 Feet
0 150 Meters

Prepared for: TxDOT	1 in = 500 feet
CSJ: 3632-01-001, 3632-01-002,	Scale: 1:6,000
and 3632-01-003	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 1_Displacements_20181218.mxd

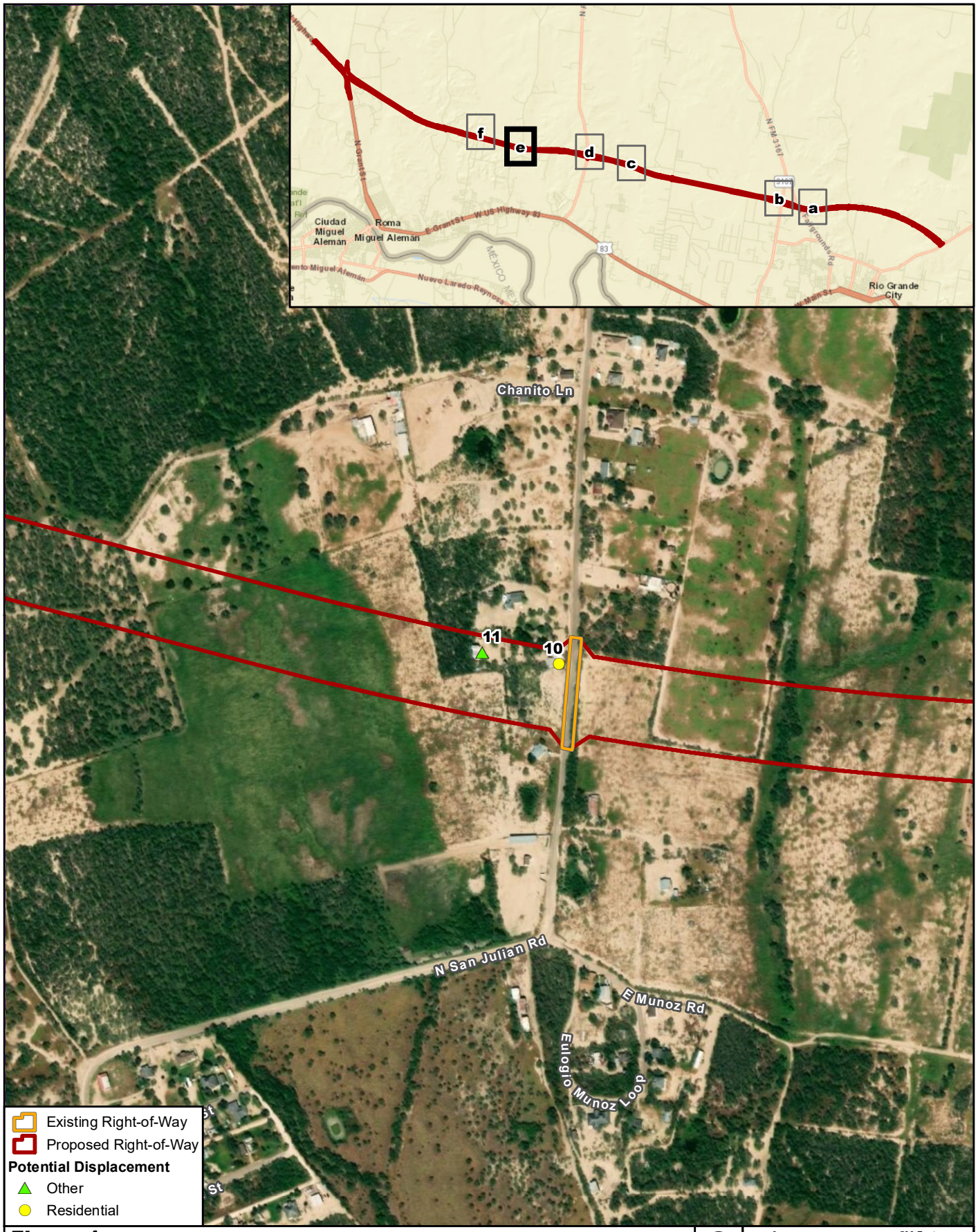

Figure 1e

Potential Displacements

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 500 Feet
0 150 Meters

Prepared for: TxDOT	1 in = 500 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:6,000
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 1_Displacements_20181218.mxd

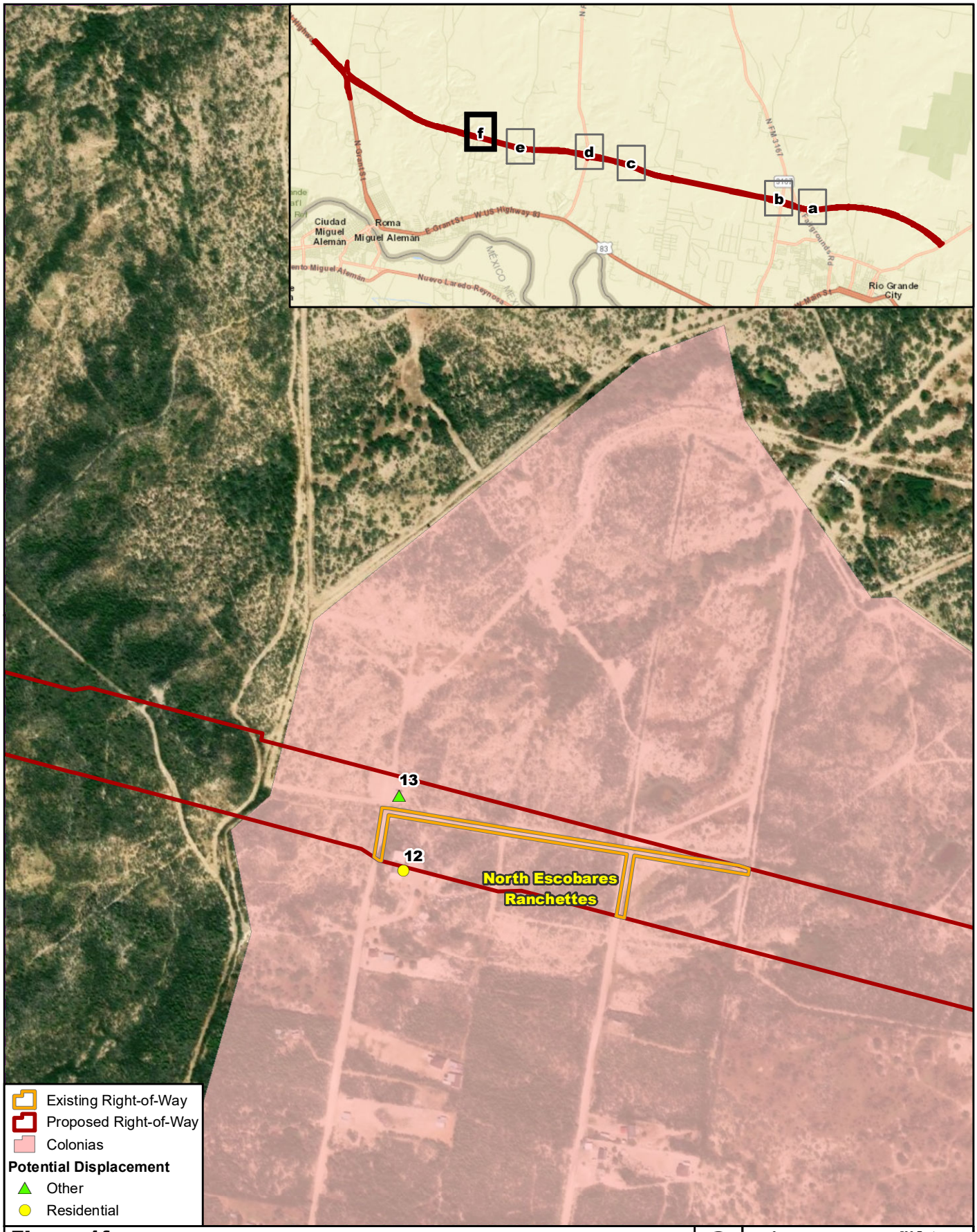

Figure 1f

Potential Displacements

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 500 Feet
0 150 Meters

Prepared for: TxDOT	1 in = 500 feet
CSJ: 3632-01-001, 3632-01-002,	Scale: 1:6,000
and 3632-01-003	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 1_Displacements_20181218.mxd

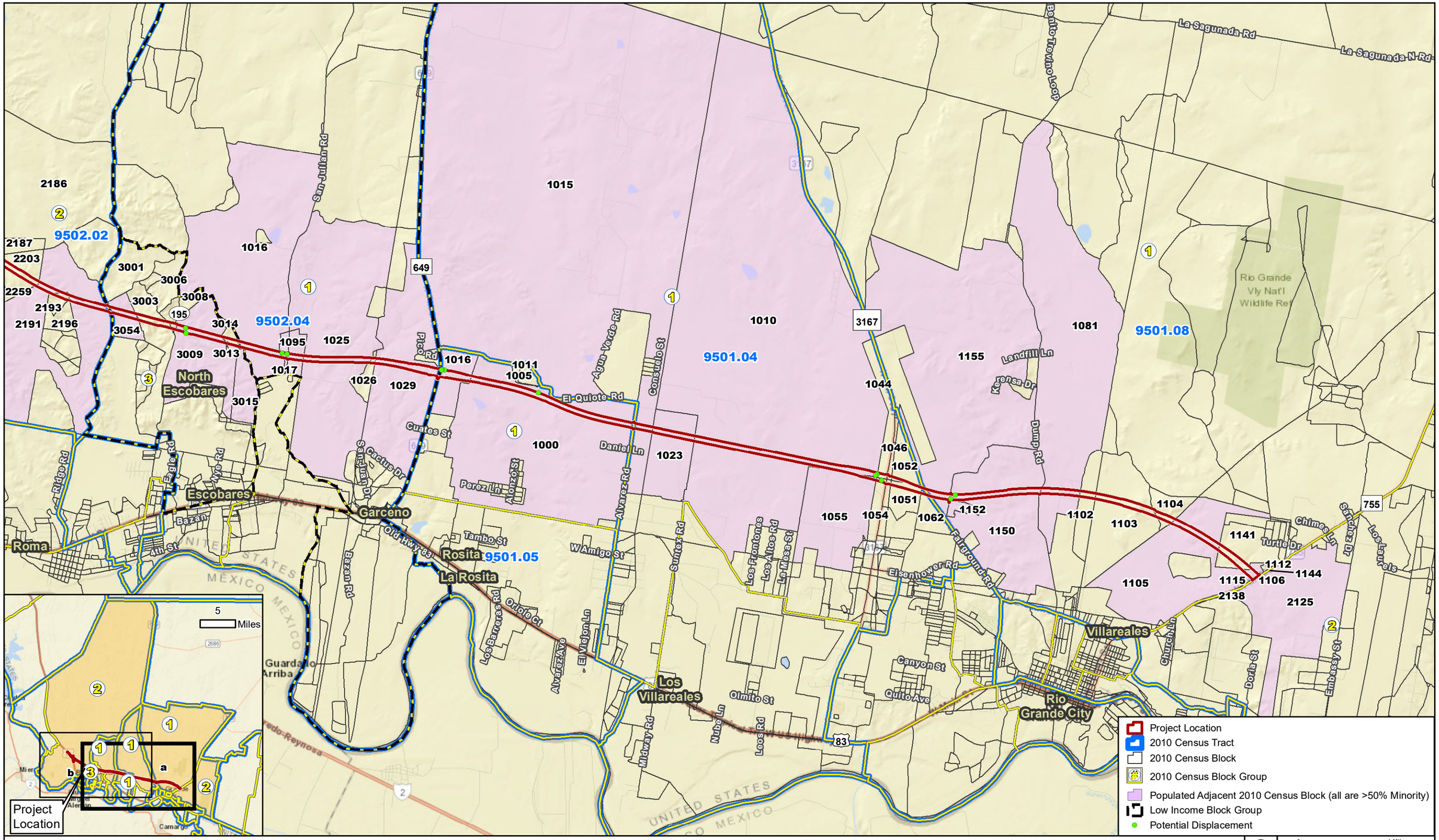

Figure 2a

Census Geographies

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Sources: CMEC (2015), US Census Bureau (2010)
Basemap Source: ESRI (2018)

Prepared for: TxDOT	1 in = 5,280 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:63,360
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 2_Census Geographies_20181218.mxd

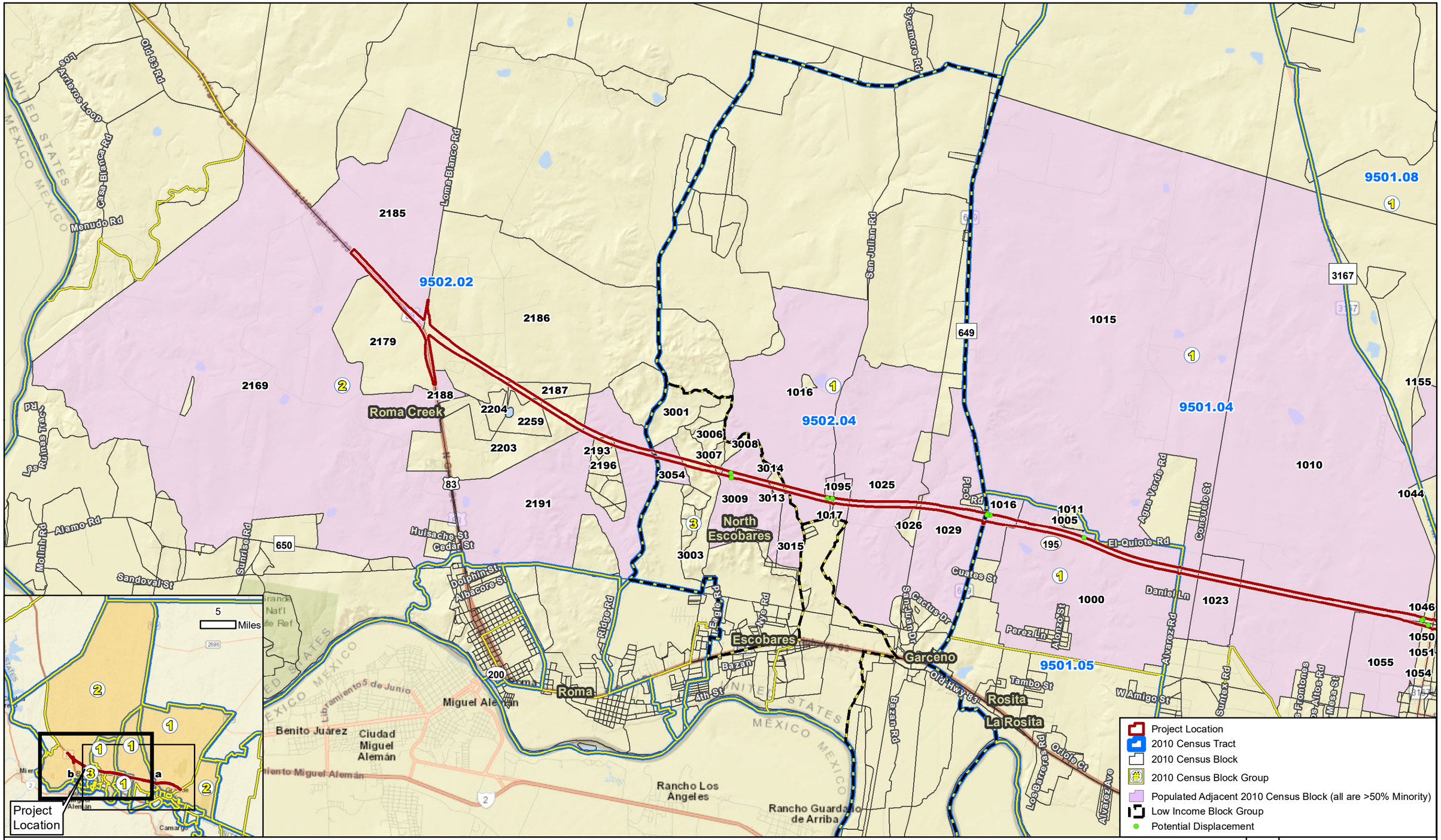

Figure 2b

Census Geographies

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Sources: CMEC (2015), US Census Bureau (2010)
Basemap Source: ESRI (2018)

Prepared for: TxDOT	1 in = 5,280 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:63,360
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 2_Census Geographies_20181218.mxd

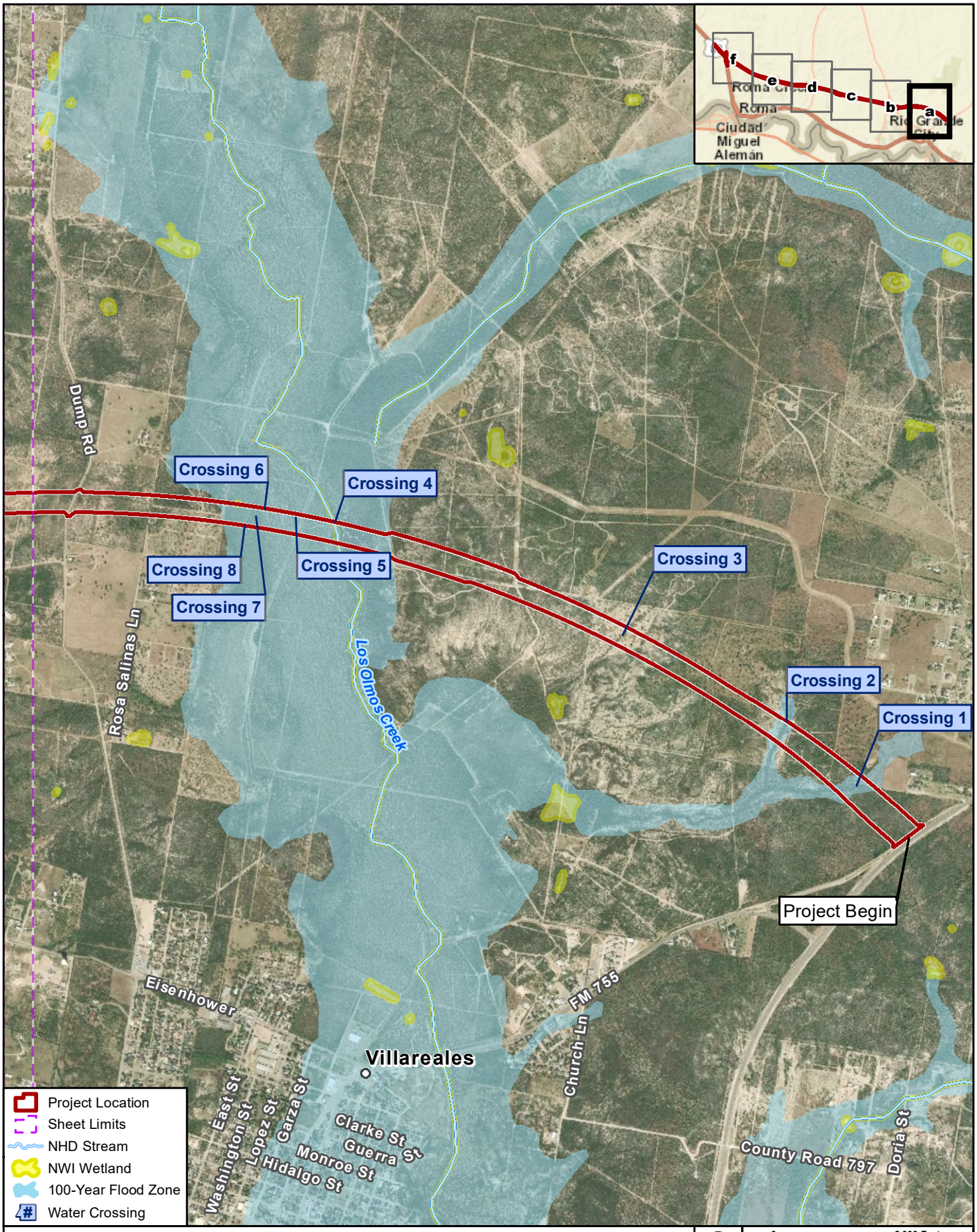

Figure 3a. Water Resources

SL 195 from FM 755 to 1 mile north of US 83/Loma Blanca Intersection

Data Sources: NHD (2018), NWI (2018), FEMA NFHL (2018), CMEC (2015, 2017), TxDOT (2019), TWDB (2019)
Aerial Source: DigitalGlobe (2018)

0 2,000 Feet
0 600 Meters

Prepared for: TxDOT	1 in = 2,000 feet
CSJ: 3623-01-001, 3632-01-002, and 3632-01-003	Scale: 1:24,000
	Date: 12/10/2019

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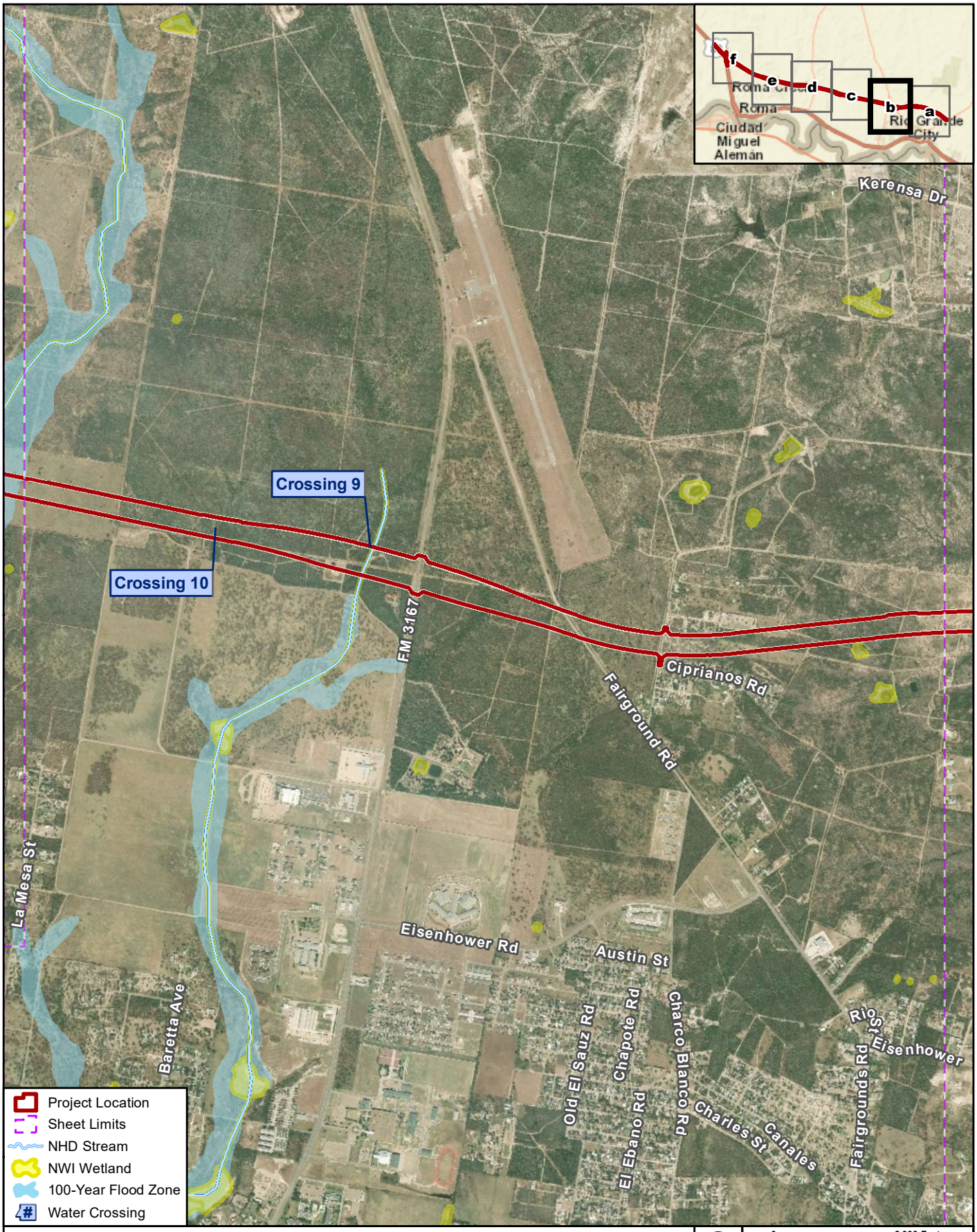

Figure 3b. Water Resources

SL 195 from FM 755 to 1 mile north of US 83/Loma Blanca Intersection

Data Sources: NHD (2018), NWI (2018), FEMA NFHL (2018), CMEC (2015, 2017), TxDOT (2019), TWDB (2019)
Aerial Source: DigitalGlobe (2018)

0 2,000 Feet
0 600 Meters

Prepared for: TxDOT	1 in = 2,000 feet
CSJ: 3623-01-001, 3632-01-002, and 3632-01-003	Scale: 1:24,000
	Date: 12/10/2019

G:\Projects\TXDOT\SL195\2019EA_Figure 6_Water Resources_20191202_ms.mxd

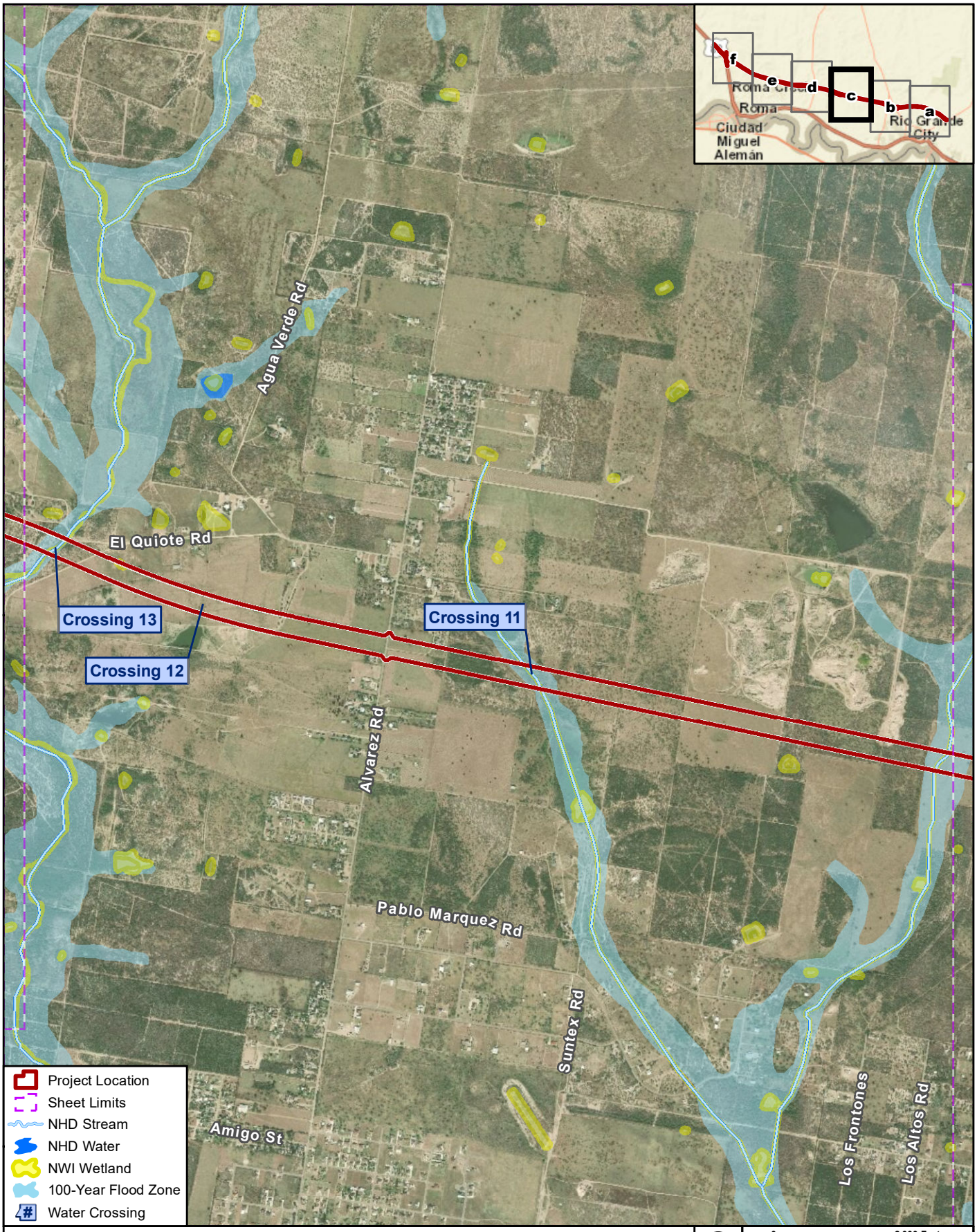

Figure 3c. Water Resources

SL 195 from FM 755 to 1 mile north of US 83/Loma Blanca Intersection

Data Sources: NHD (2018), NWI (2018), FEMA NFHL (2018), CMEC (2015, 2017), TxDOT (2019), TWDB (2019)
Aerial Source: DigitalGlobe (2018)

0 2,000 Feet
0 600 Meters

Prepared for: TxDOT	1 in = 2,000 feet
CSJ: 3623-01-001, 3632-01-002, and 3632-01-003	Scale: 1:24,000
	Date: 12/10/2019

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Figure 3d. Water Resources

SL 195 from FM 755 to 1 mile north of US 83/Loma Blanca Intersection

Data Sources: NHD (2018), NWI (2018), FEMA NFHL (2018), CMEC (2015, 2017), TxDOT (2019), TWDB (2019)
Aerial Source: DigitalGlobe (2018)

0 2,000 Feet
0 600 Meters

Prepared for: TxDOT	1 in = 2,000 feet
CSJ: 3623-01-001, 3632-01-002, and 3632-01-003	Scale: 1:24,000
	Date: 12/10/2019

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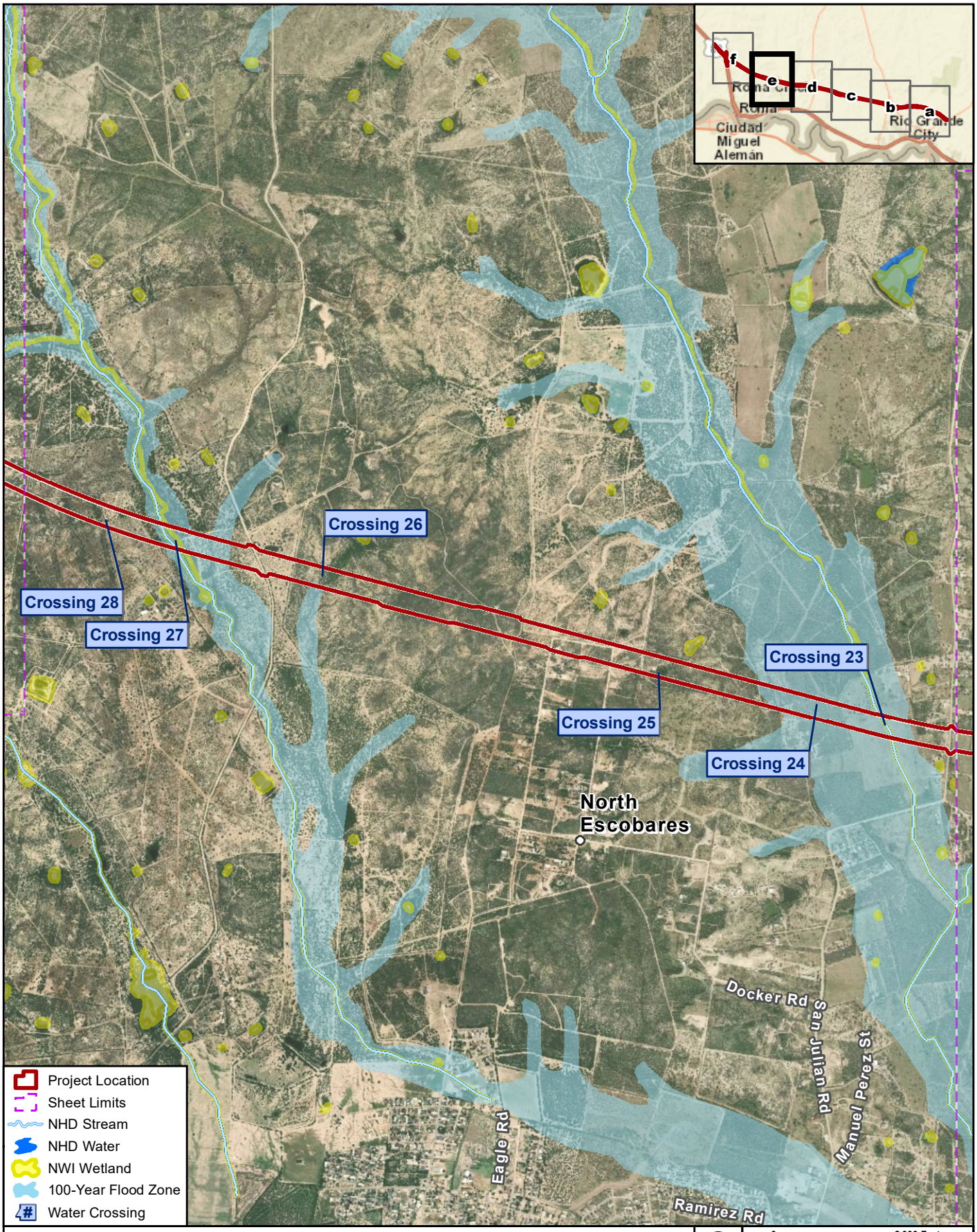

Figure 3e. Water Resources

SL 195 from FM 755 to 1 mile north of US 83/Loma Blanca Intersection

Data Sources: NHD (2018), NWI (2018), FEMA NFHL (2018), CMEC (2015, 2017), TxDOT (2019), TWDB (2019)
Aerial Source: DigitalGlobe (2018)

0 2,000 Feet
0 600 Meters

Prepared for: TxDOT	1 in = 2,000 feet
CSJ: 3623-01-001, 3632-01-002, and 3632-01-003	Scale: 1:24,000
	Date: 12/10/2019

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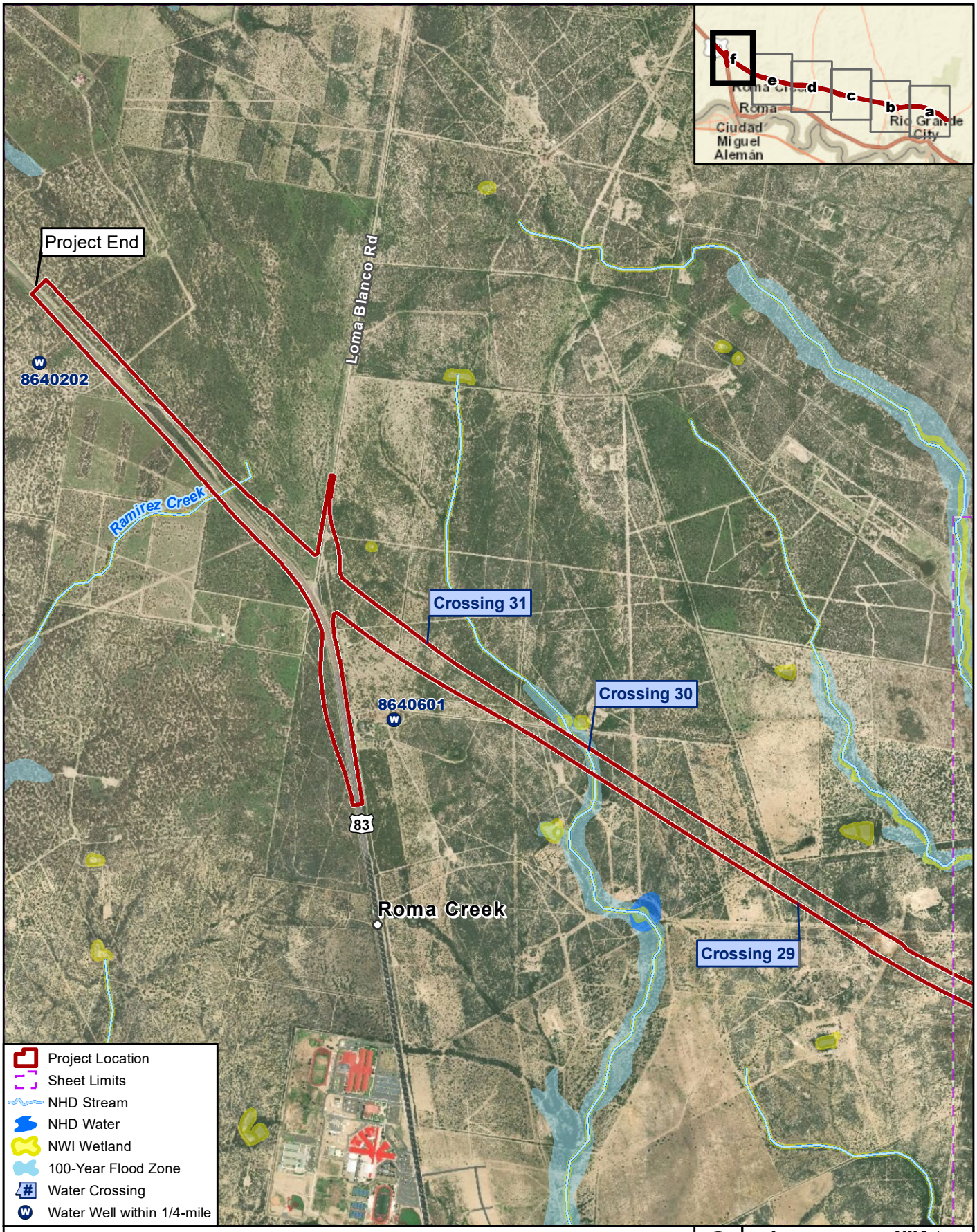

Figure 3f. Water Resources

SL 195 from FM 755 to 1 mile north of US 83/Loma Blanca Intersection

Data Sources: NHD (2018), NWI (2018), FEMA NFHL (2018), CMEC (2015, 2017), TxDOT (2019), TWDB (2019)
Aerial Source: DigitalGlobe (2018)

0 2,000 Feet
0 600 Meters

Prepared for: TxDOT	1 in = 2,000 feet
CSJ: 3623-01-001, 3632-01-002, and 3632-01-003	Scale: 1:24,000
	Date: 12/10/2019

G:\Projects\TXDOT\SL195\2019EA_Figure 6_Water Resources_20191202_ms.mxd

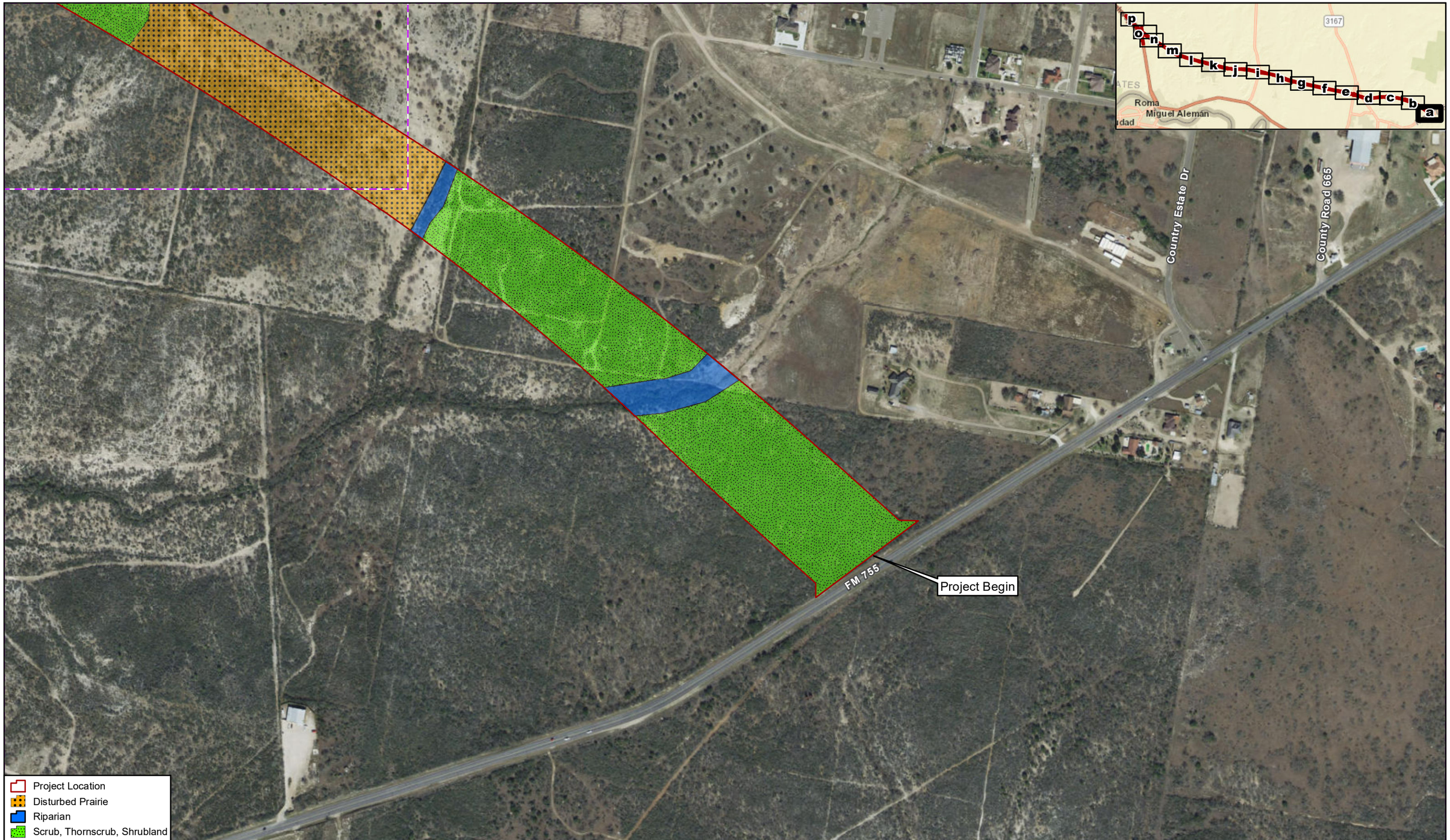

Figure 4a

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

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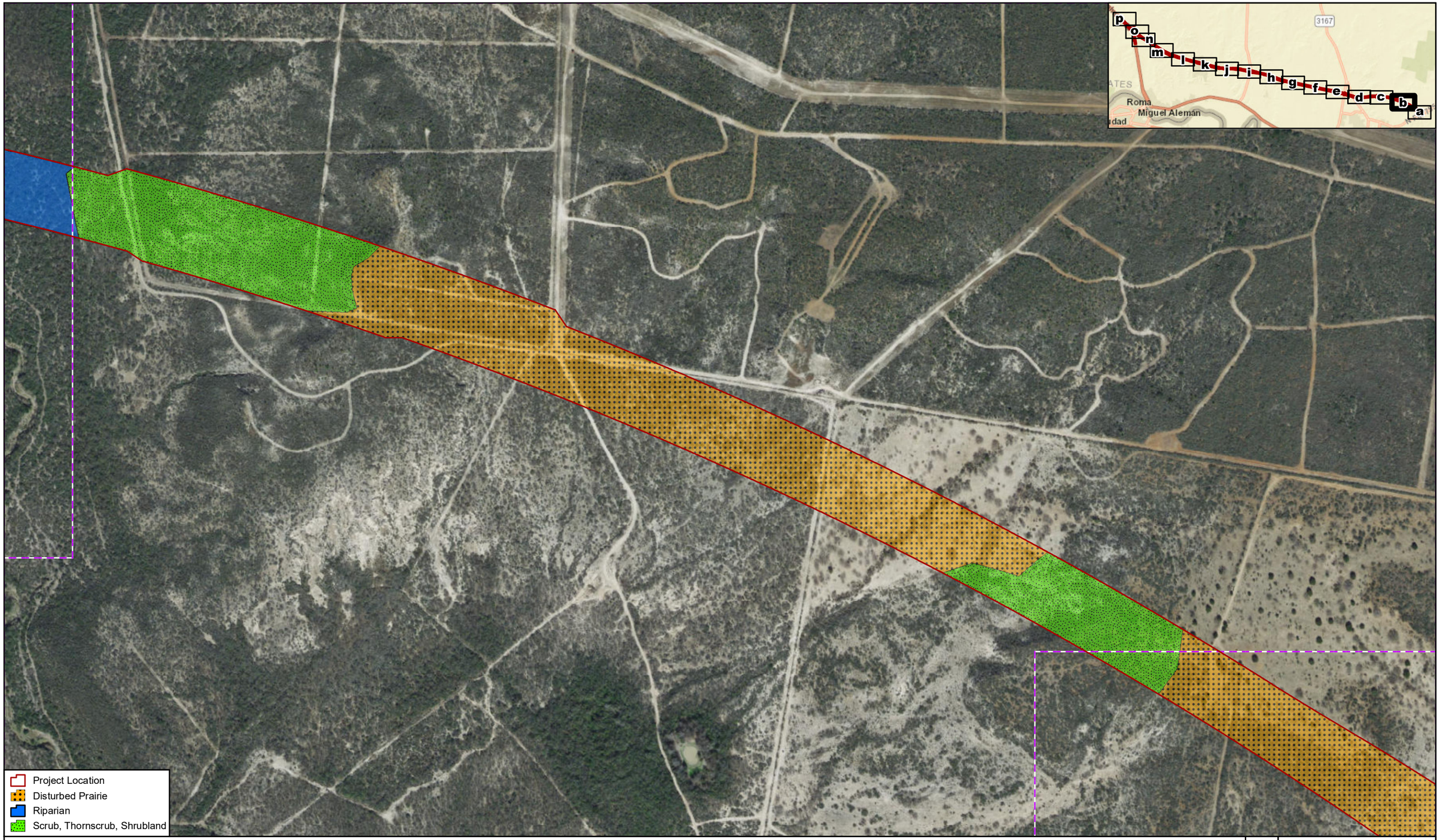

Figure 4b

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

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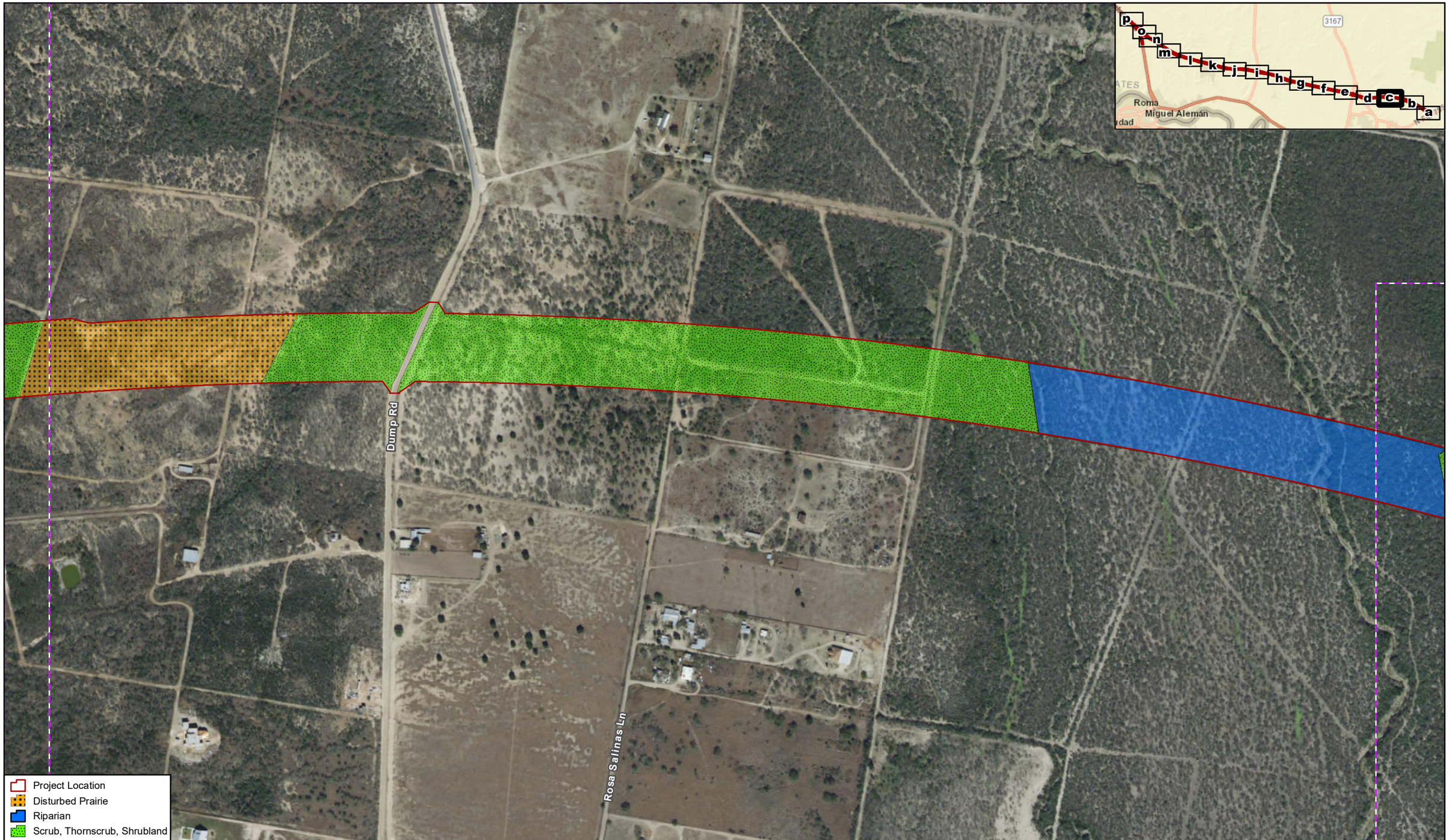

Figure 4c

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

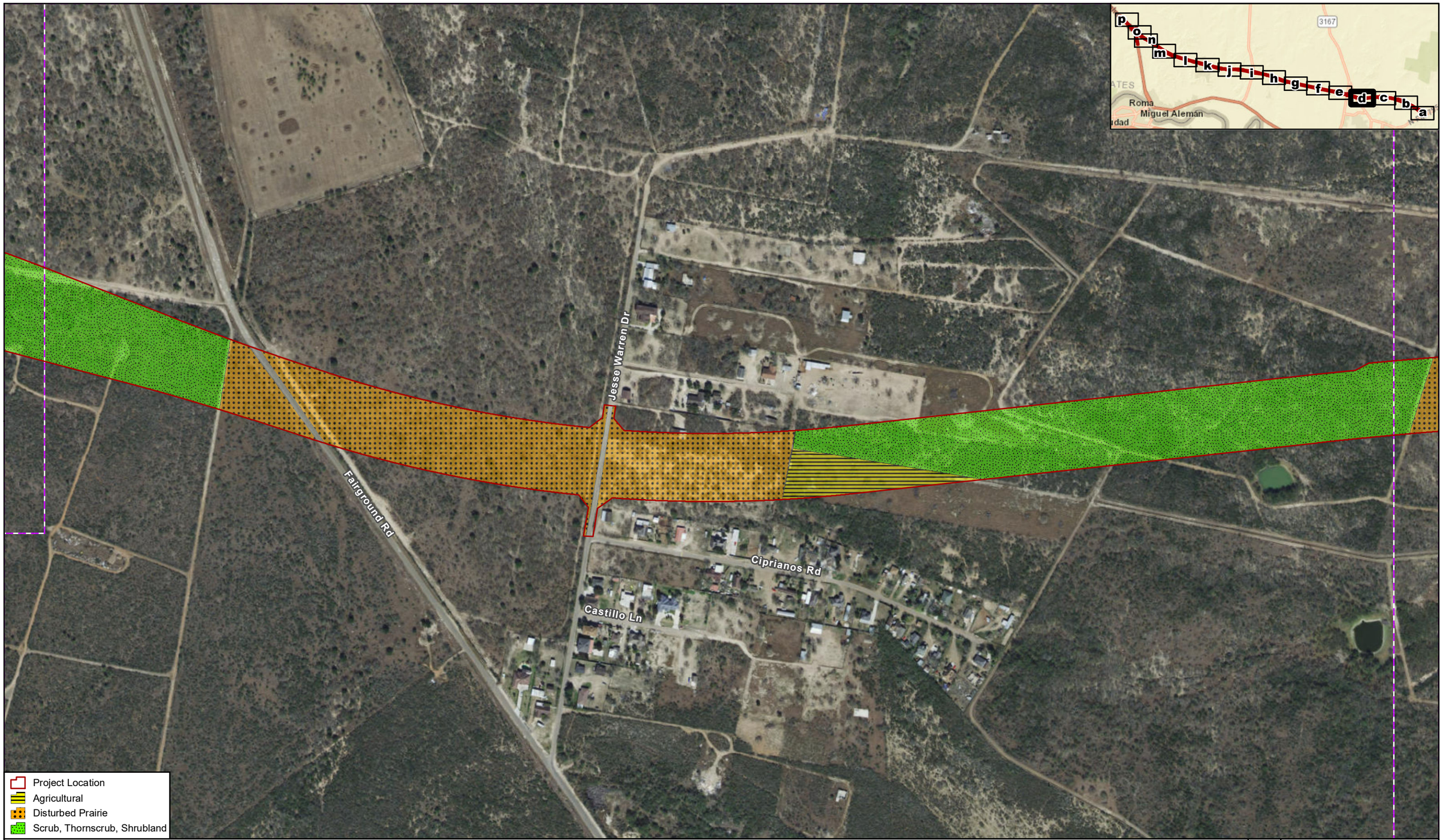

Figure 4d

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

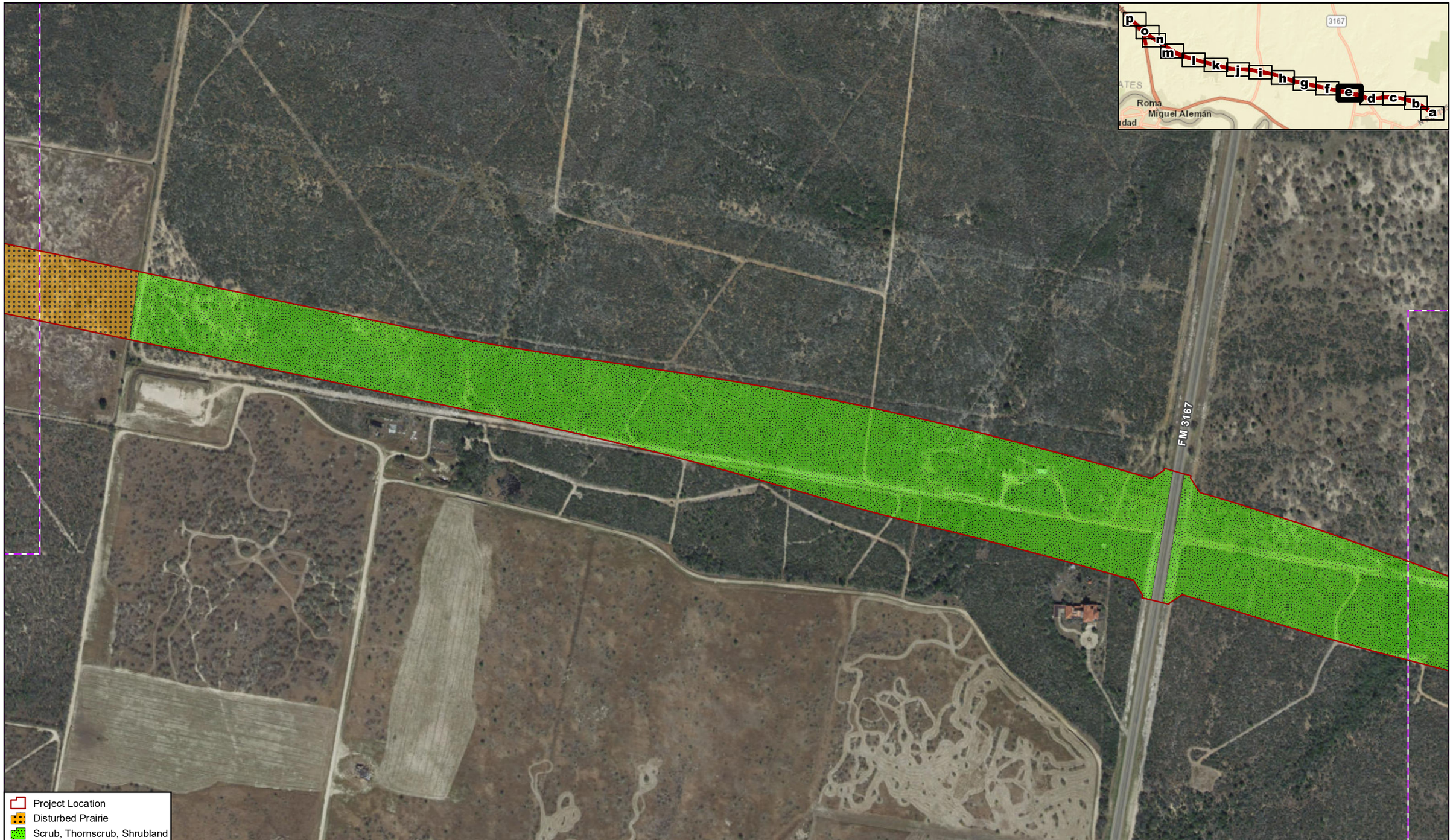

Figure 4e

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

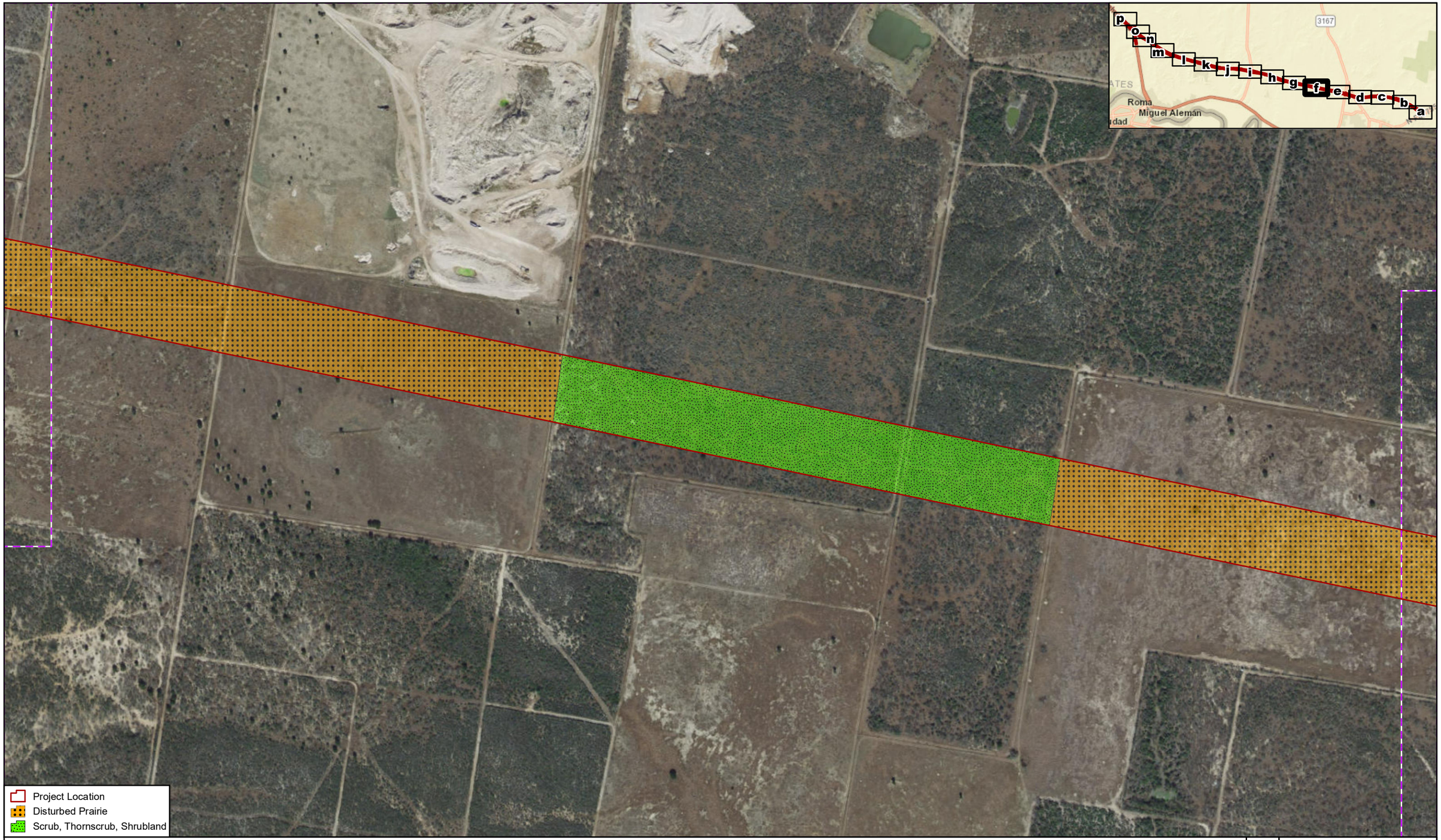

Figure 4f

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

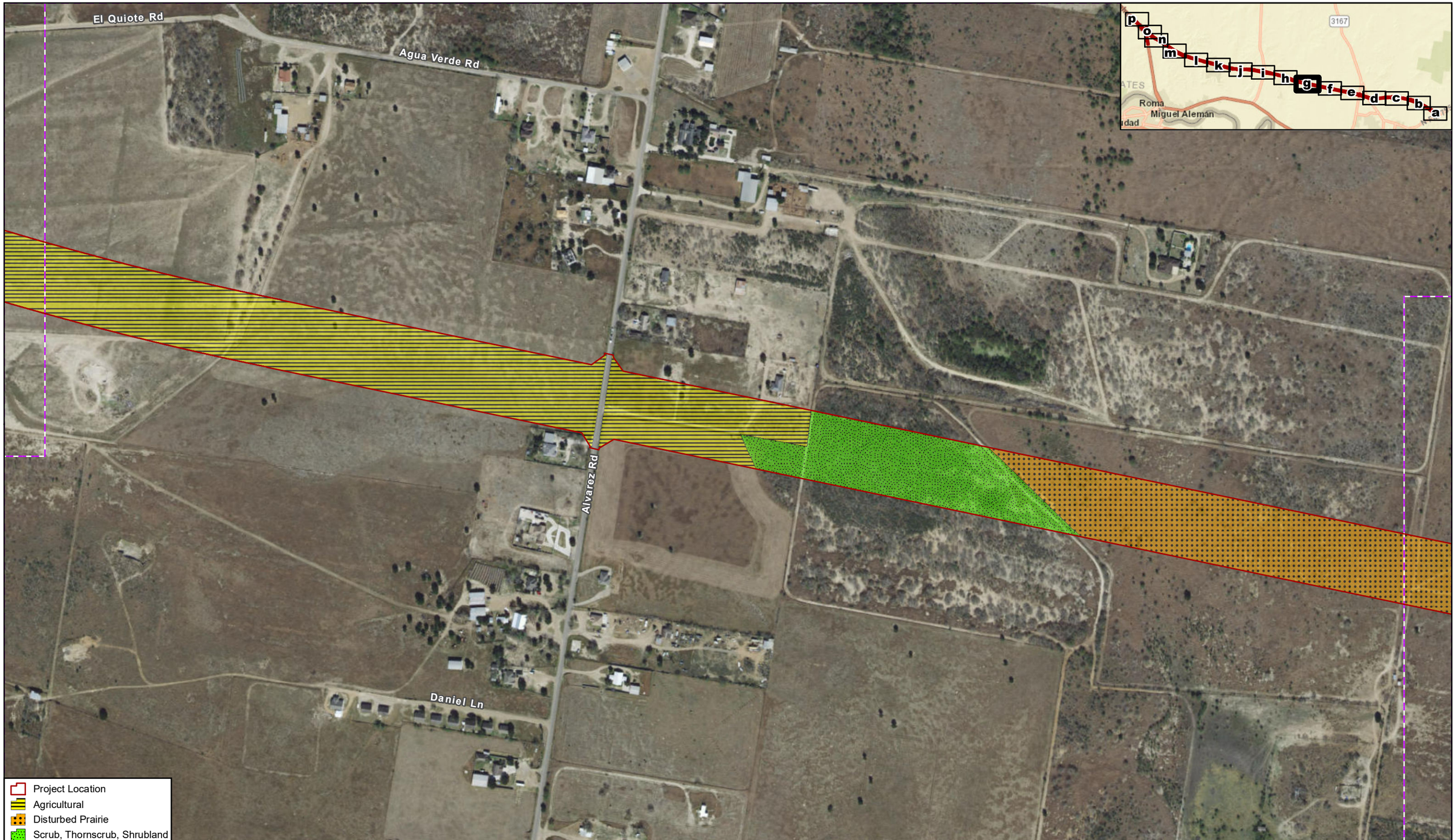

Figure 4g

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

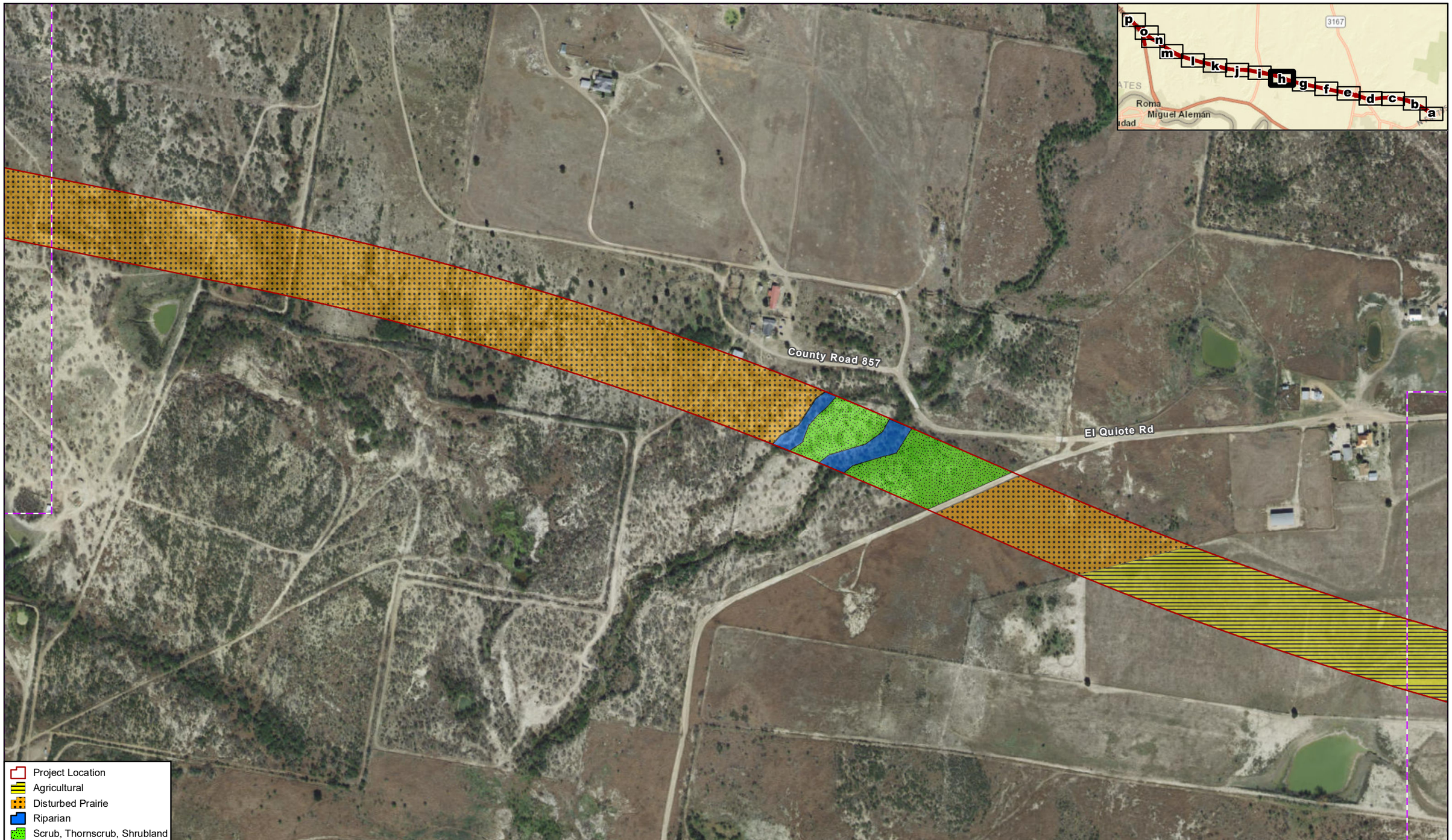

Figure 4h

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

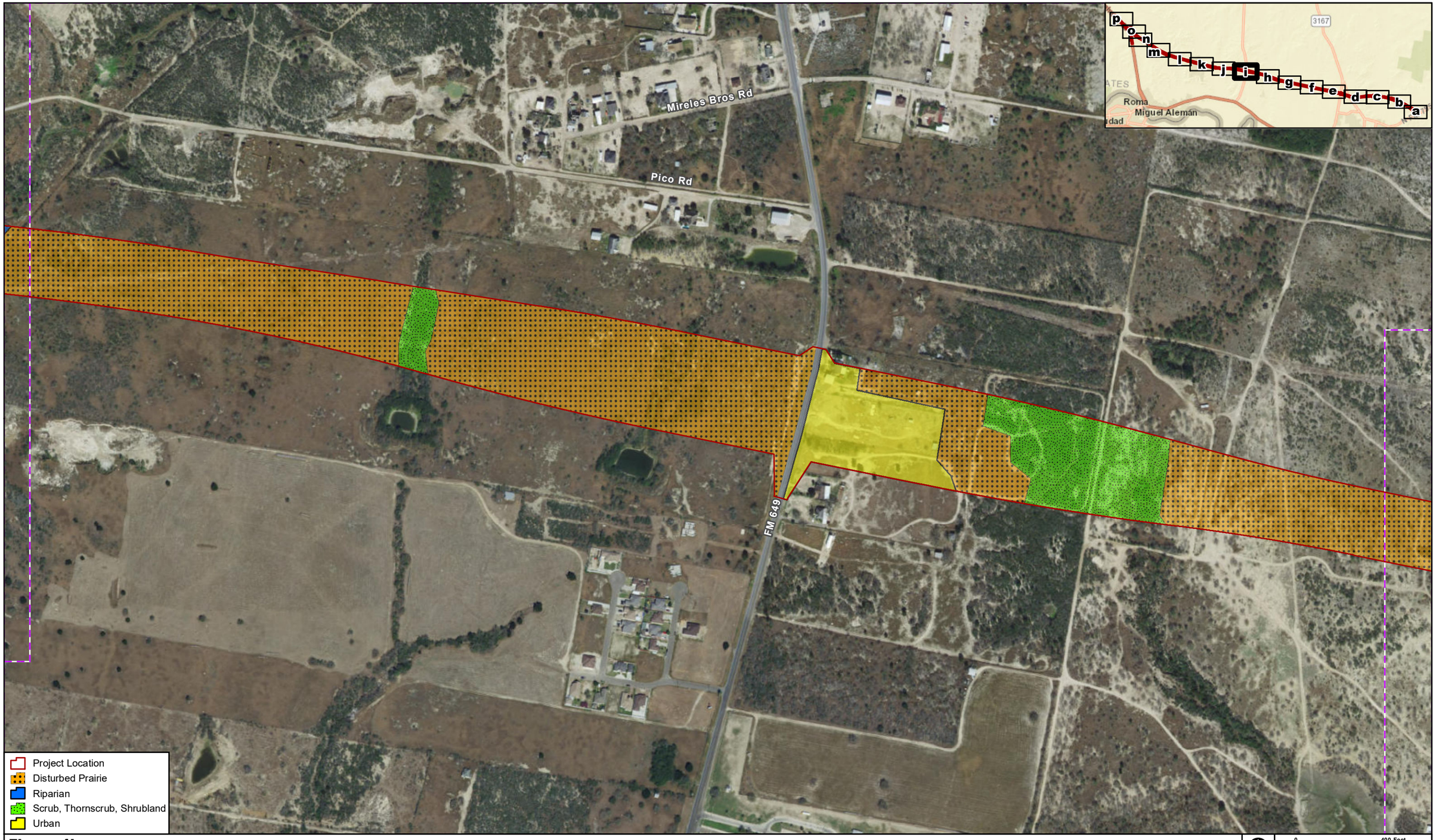

Figure 4i

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

Figure 4j

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

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Figure 4k

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

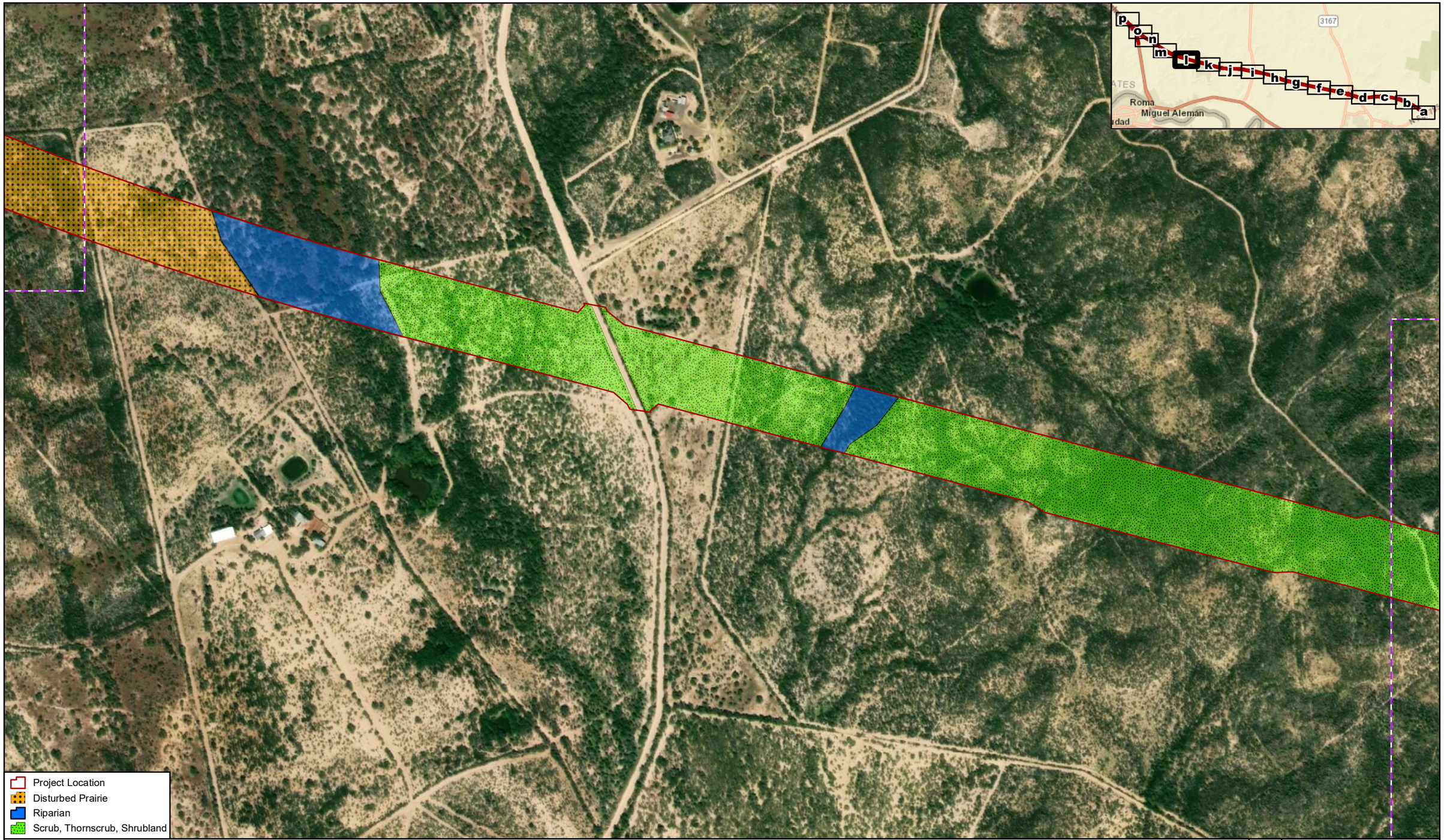

Figure 4l

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

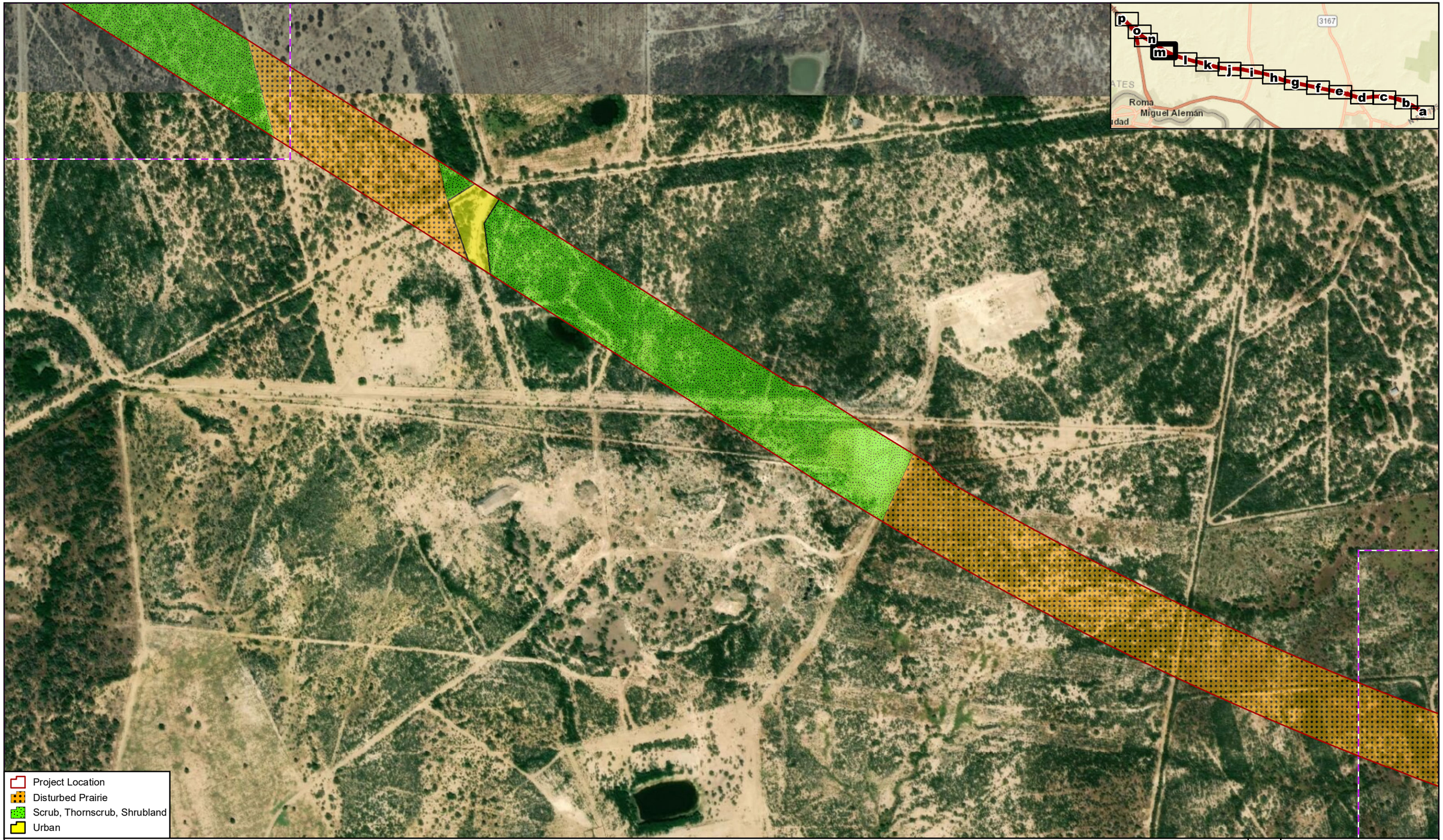

Figure 4m

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

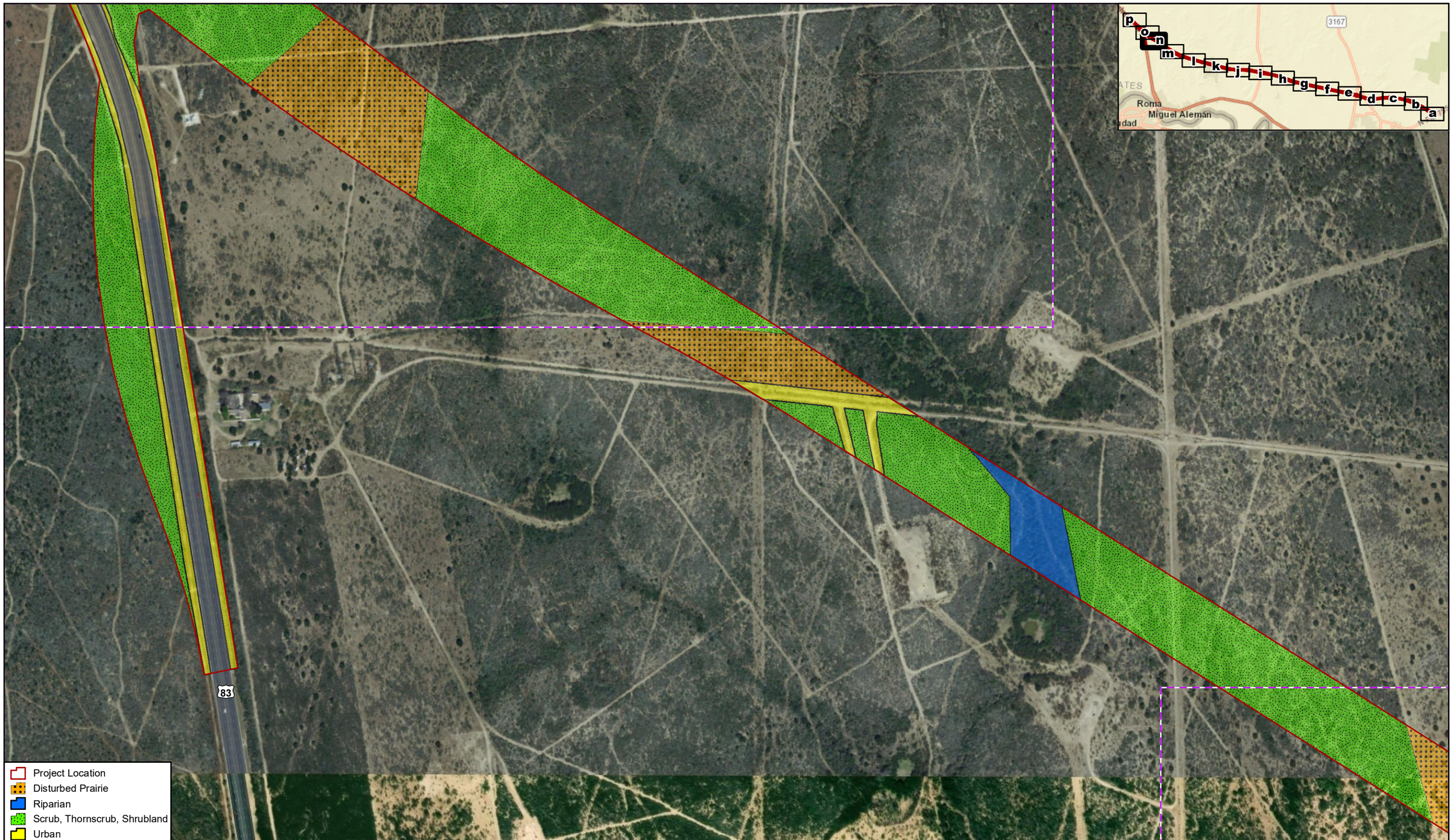

Figure 4n

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

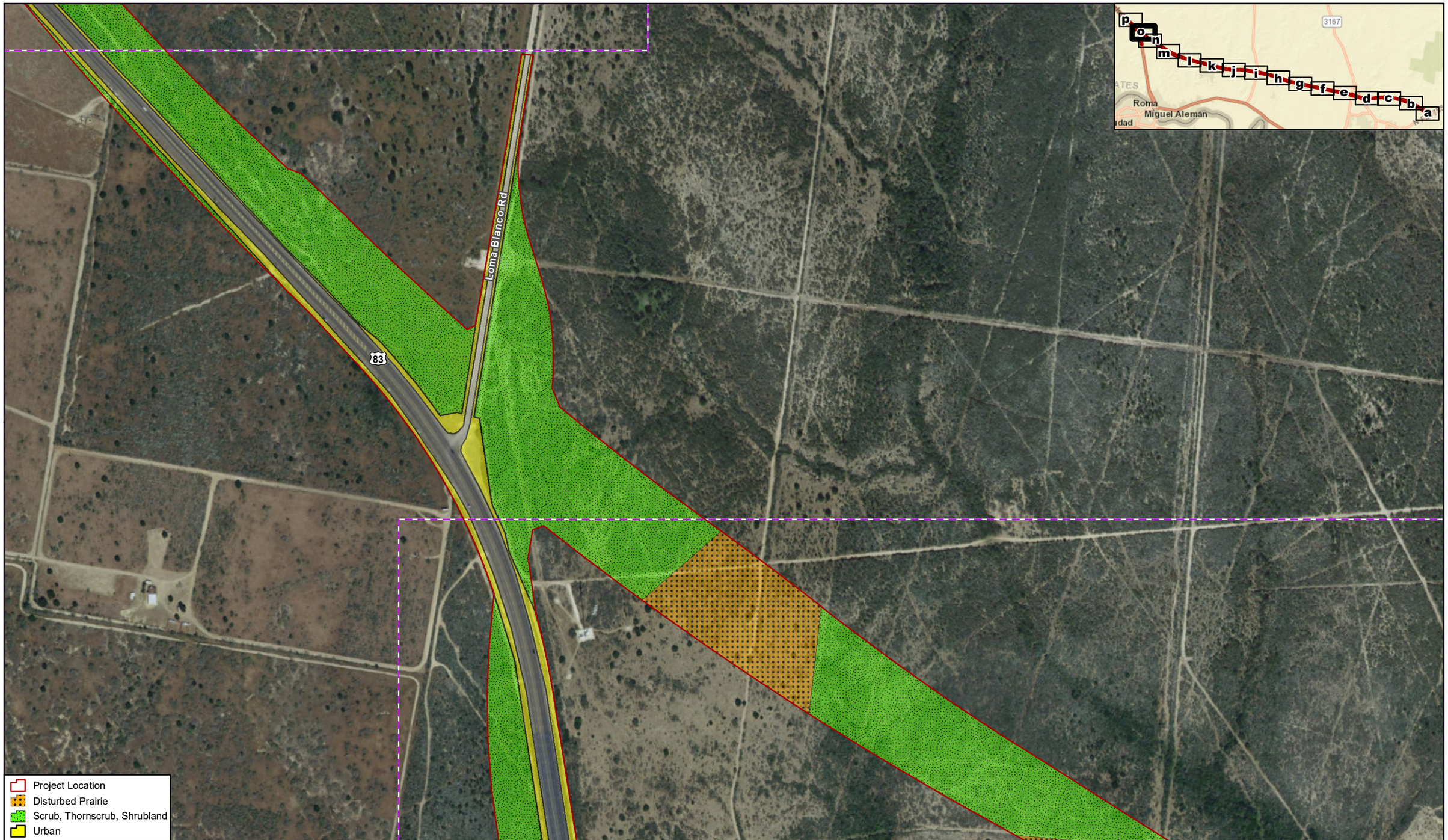

Figure 4o

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 4_Observed Veg_20181218.mxd

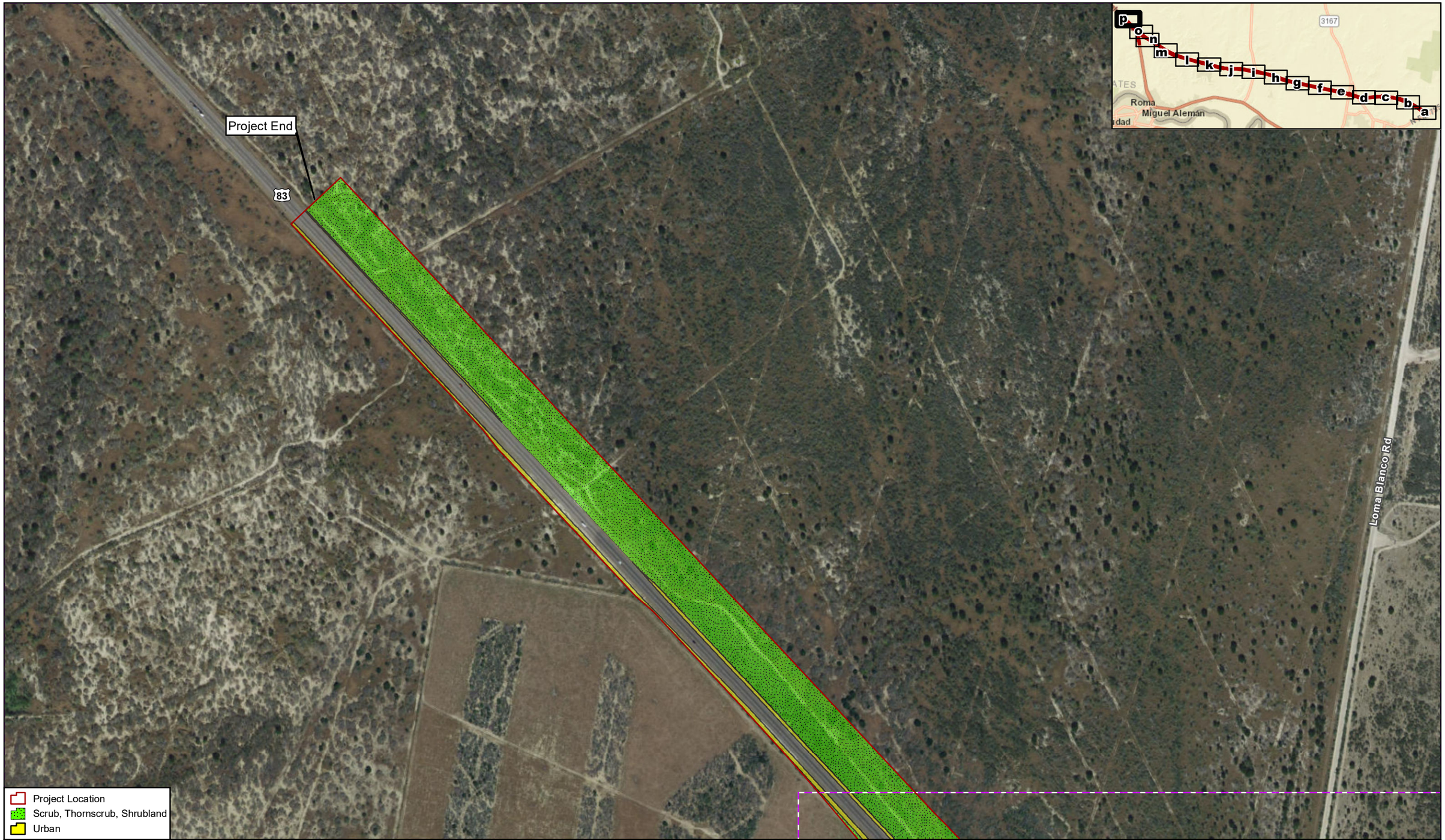

Figure 4p

Observed EMST Vegetation Types

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2015)
Aerial Source: TNRIS (2016)

0 400 Feet
0 120 Meters

Prepared for: TxDOT	1 in = 400 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:4,800
	Date: 12/21/2018

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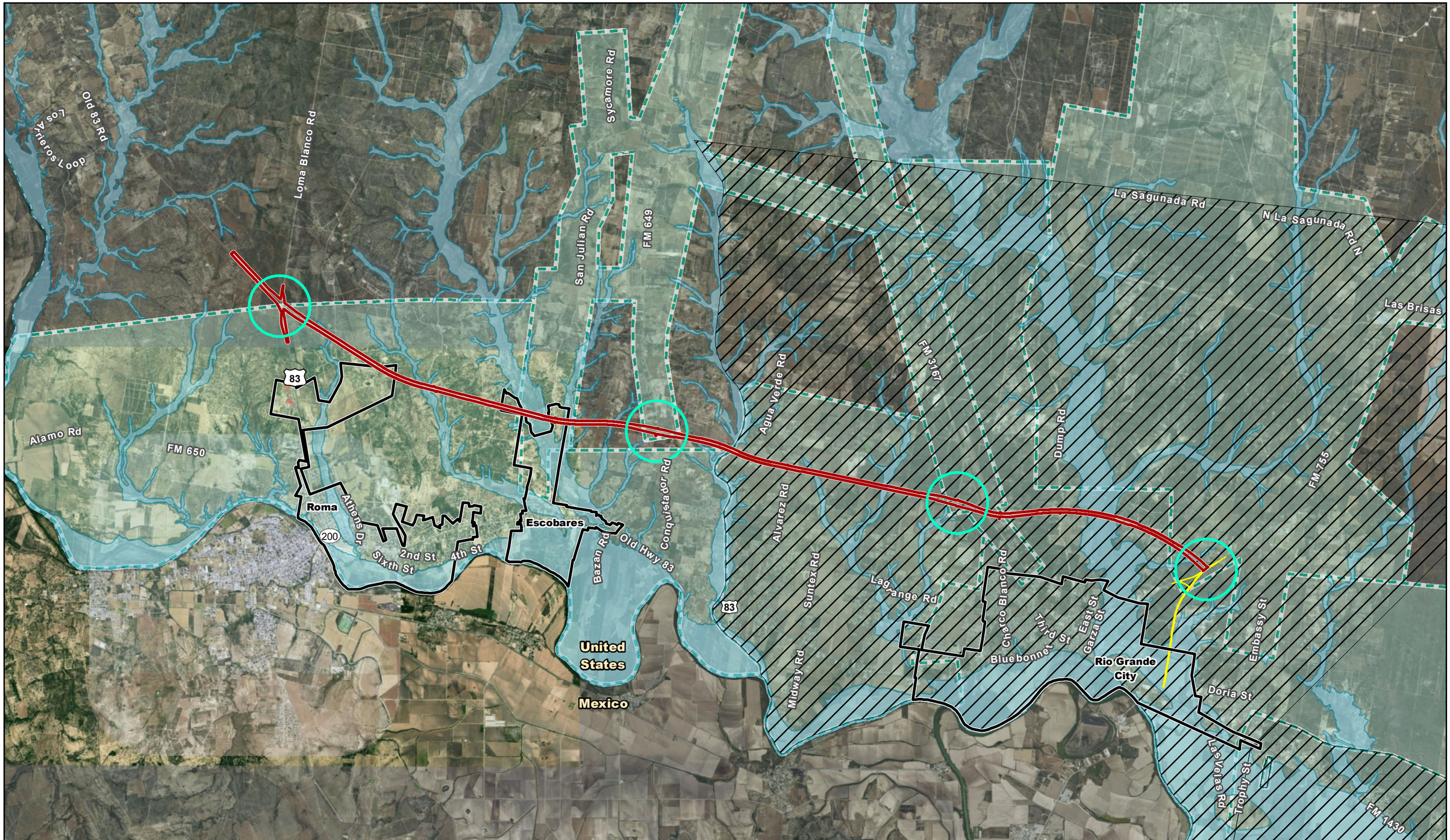


Figure 5a

Area of Influence

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Project Location
Area of Influence
Planned FM 755 Realignment
Water CCN Boundary
Sewer CCN Boundary
City Limits
100-Year Flood Zone

Aerial Sources: TNRIS (2016), NAIP (2016), DigitalGlobe (2014, 2015, 2016)

0 1.5 Miles
0 2.5 Kilometers

Prepared for: TxDOT	1 in = 1.5 miles
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:95,040
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 5a_AOI_20181218.mxd

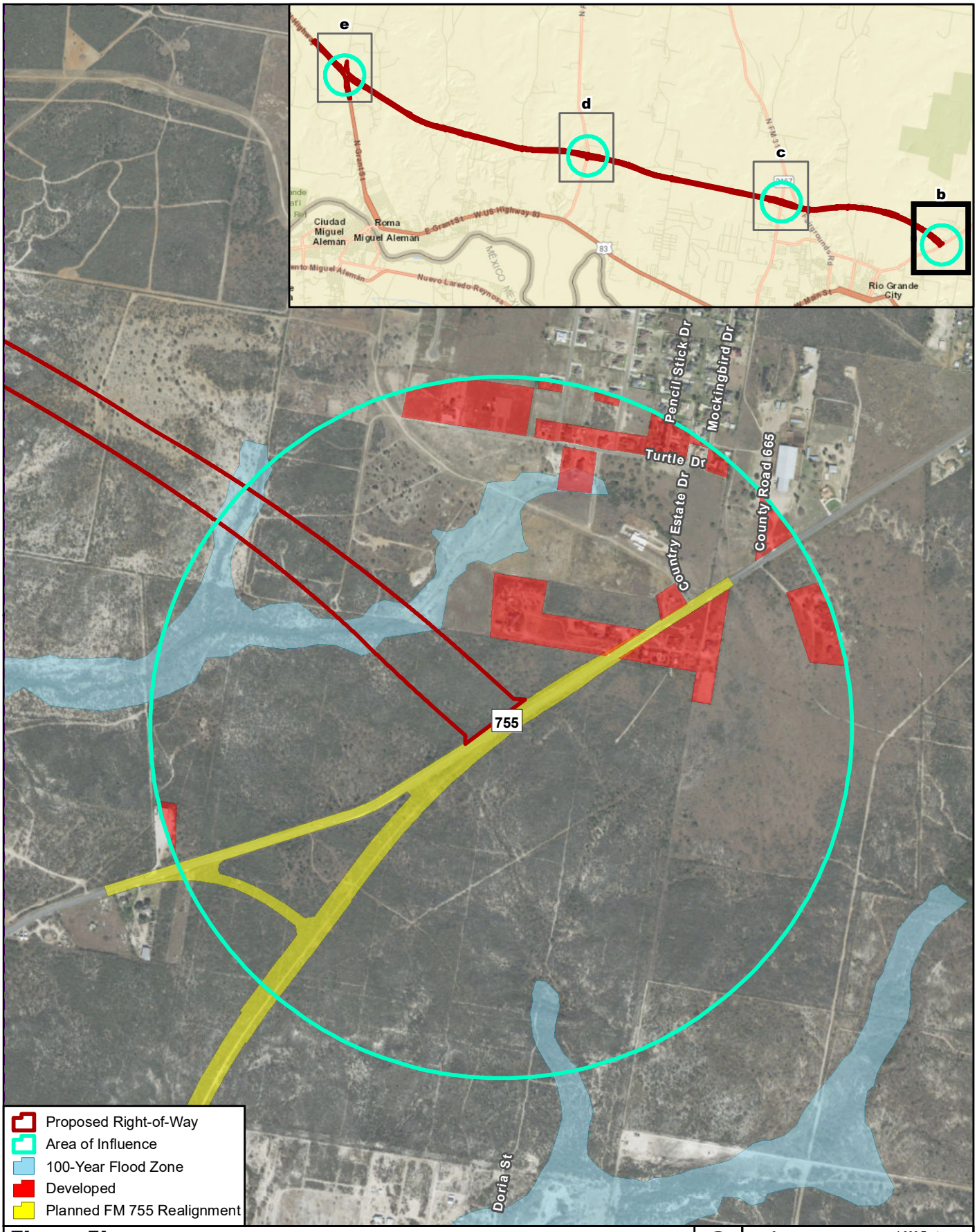


Figure 5b

Area of Influence

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 1,000 Feet
0 300 Meters

Prepared for: TxDOT	1 in = 1,000 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:12,000
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 5b-e_AOI_20181218.mxd

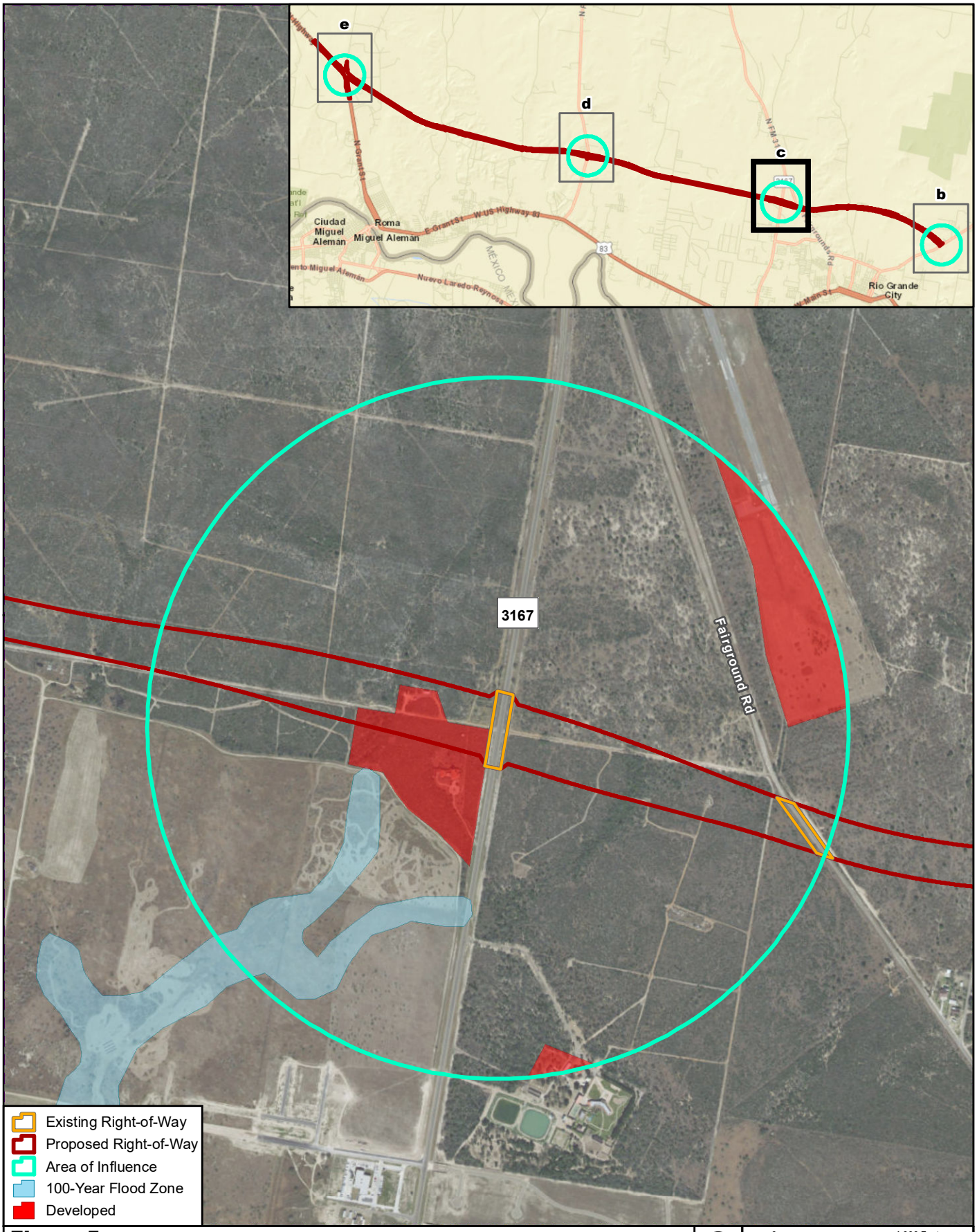


Figure 5c

Area of Influence

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 1,000 Feet
0 300 Meters

Prepared for: TxDOT	1 in = 1,000 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:12,000
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 5b-e_AOI_20181218.mxd

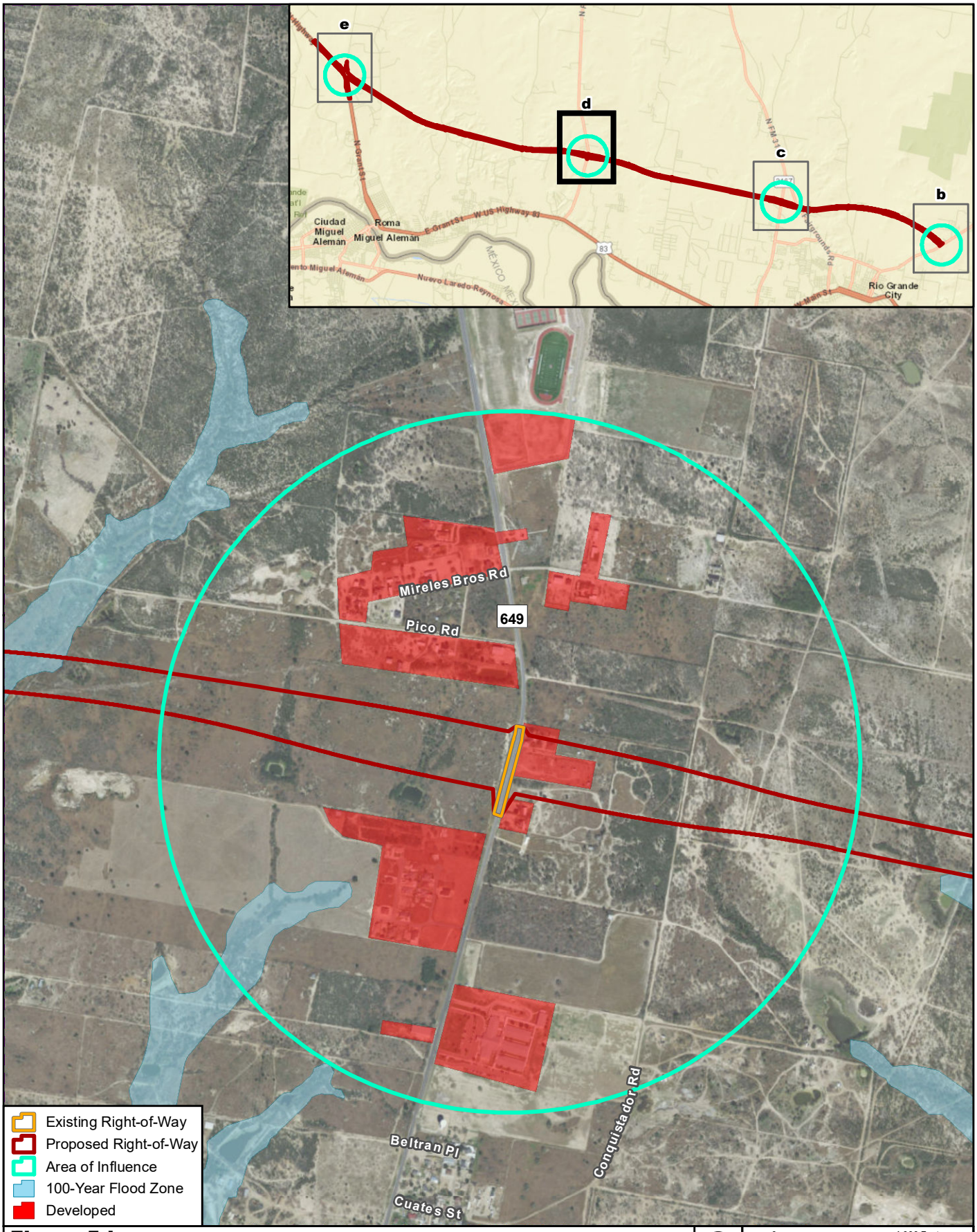


Figure 5d

Area of Influence

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 1,000 Feet
0 300 Meters

Prepared for: TxDOT	1 in = 1,000 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:12,000
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 5b-e_AOI_20181218.mxd

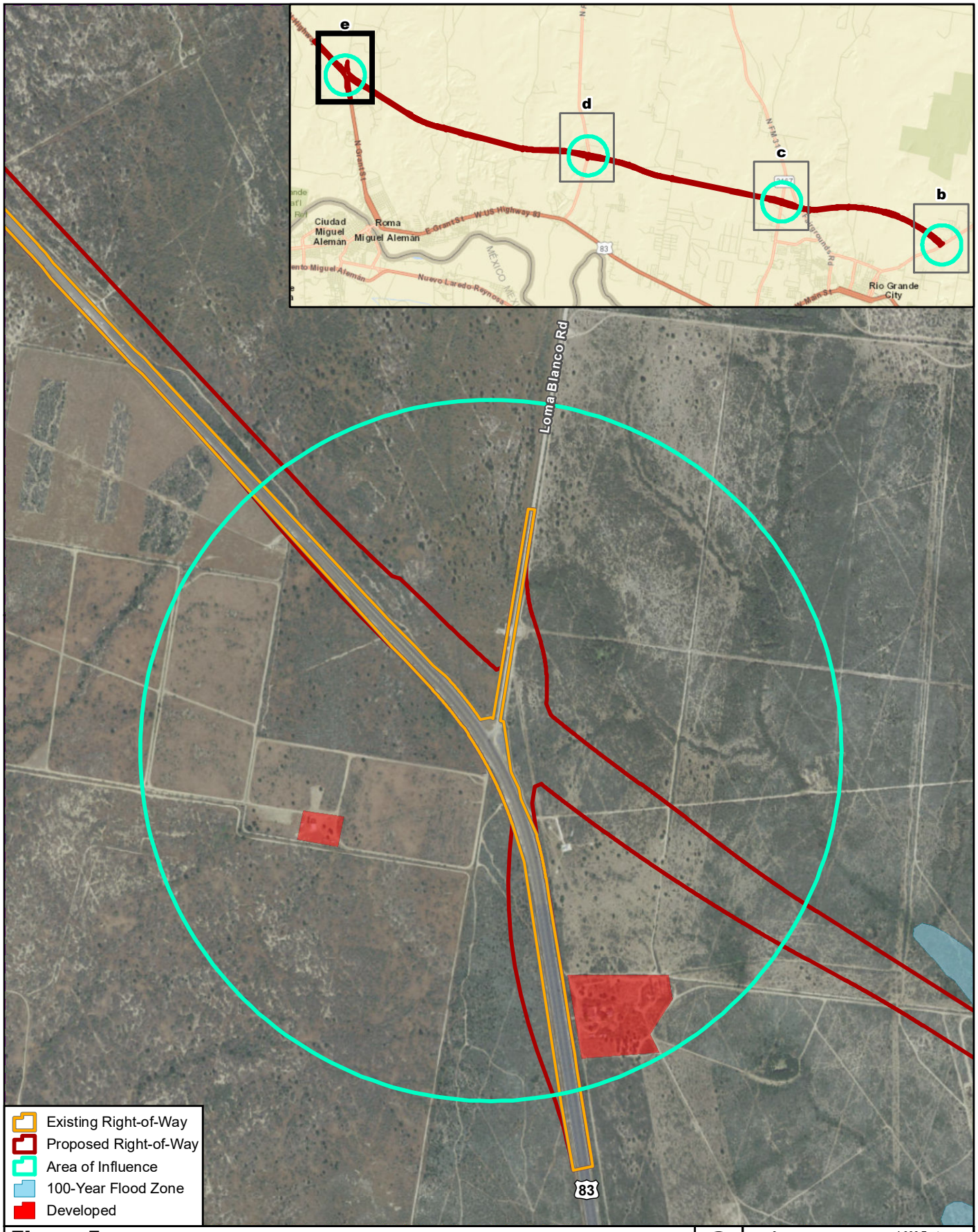


Figure 5e

Area of Influence

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: CMEC (2018)
Aerial Source: TNRIS (2016)

0 1,000 Feet
0 300 Meters

Prepared for: TxDOT	1 in = 1,000 feet
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale: 1:12,000
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 5b-e_AOI_20181218.mxd

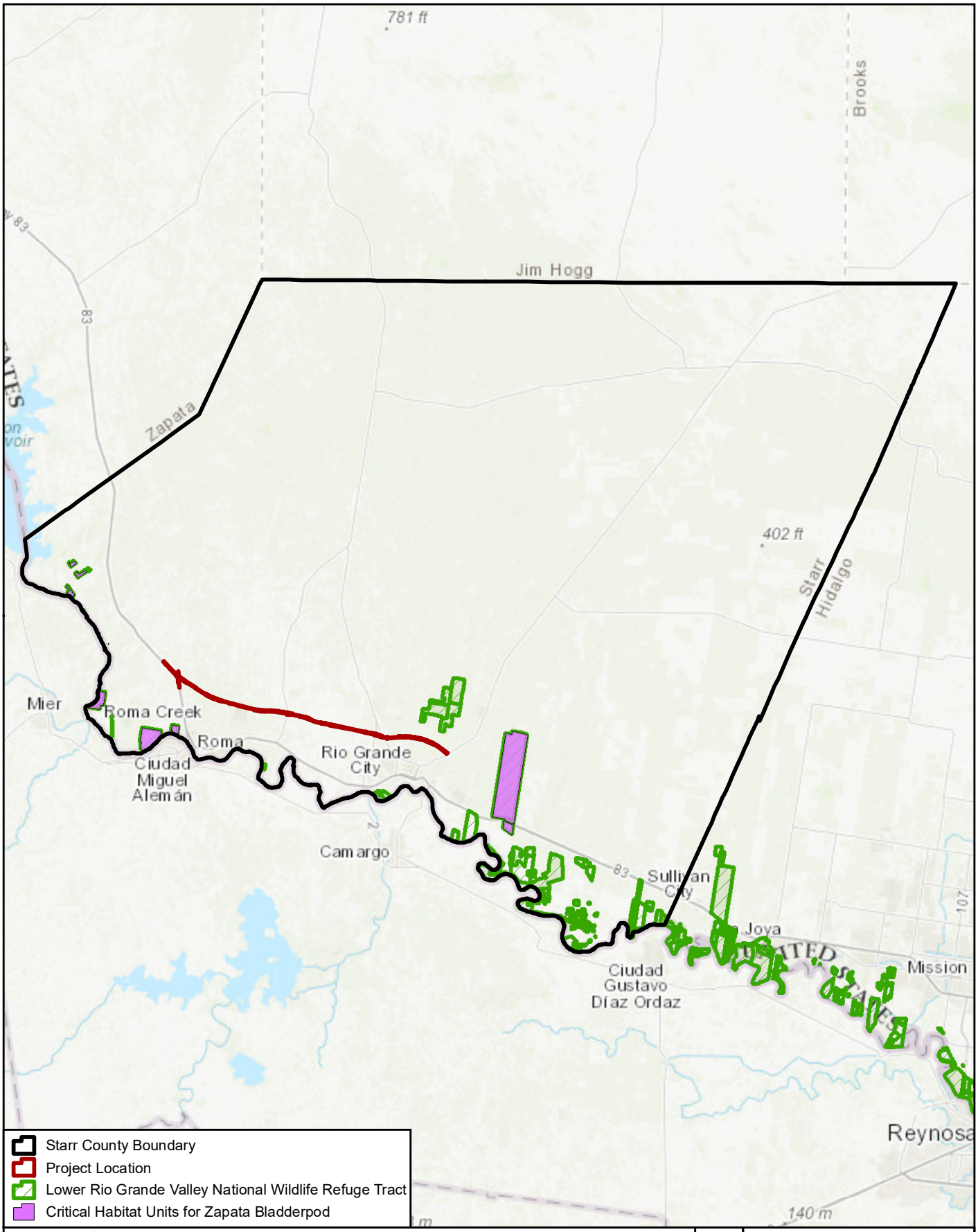


Figure 6 - Lower Rio Grande Valley National Wildlife Refuges and Critical Habitat Units

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: USFWS (2015, 2017)
Basemap Source: ESRI (2018)

0 7.5 Miles
0 10 Kilometers

Prepared for: TxDOT	1 in = 7.5 miles
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale:1:475,200
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 6_LRGV NWR_20181218.mxd

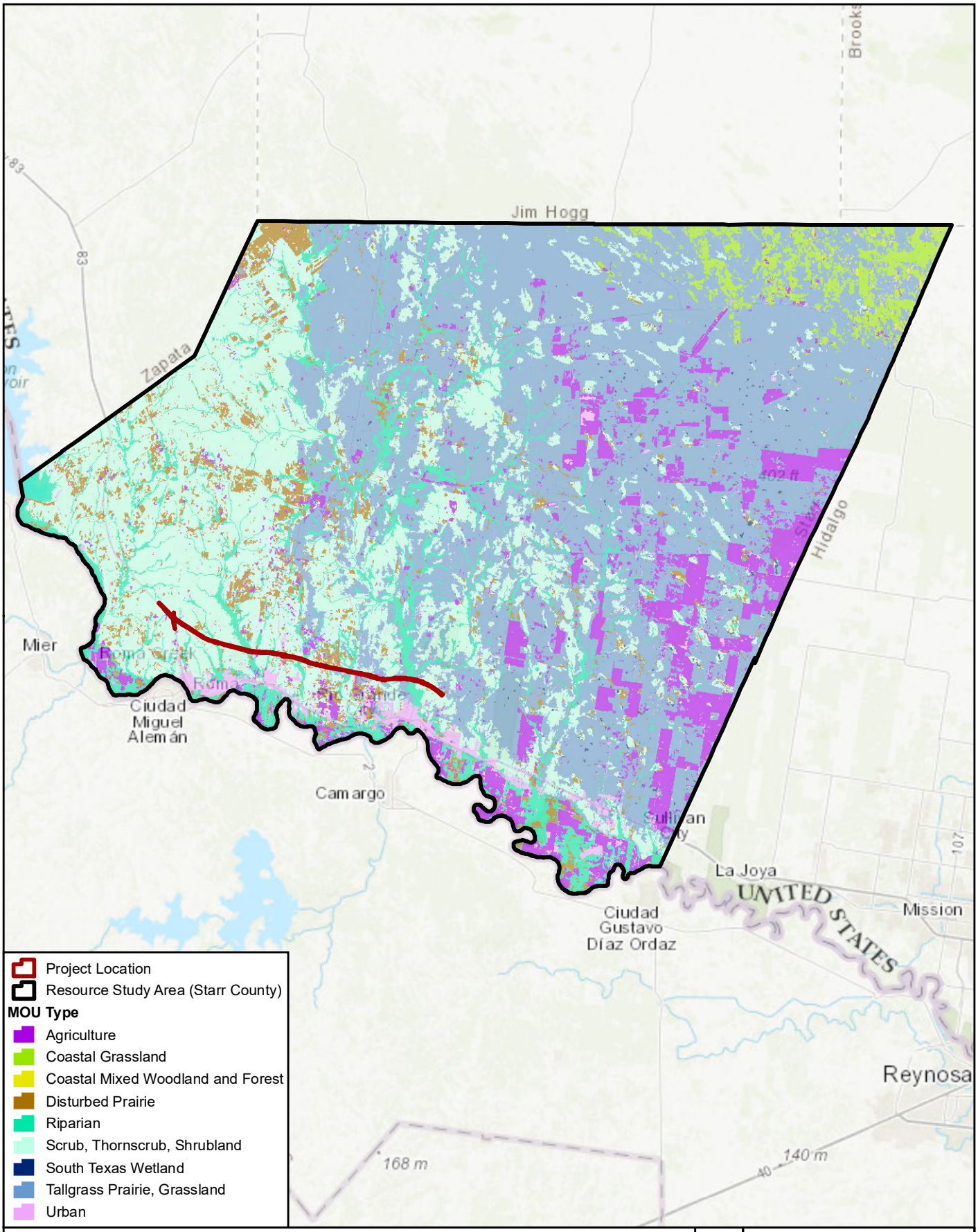


Figure 7

Resource Study Area for Vegetation and Wildlife Habitat

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: TxDOT/TPWD
EMST/MoRAP (2013)
Basemap Source: ESRI (2018)

0 7.5 Miles
0 10 Kilometers

Prepared for: TxDOT	1 in = 7.5 miles
CSJ: 3632-01-001, 3632-01-002,	Scale:1:475,200
and 3632-01-003	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 7_RSA_Veg Wildlife_20181218.mxd

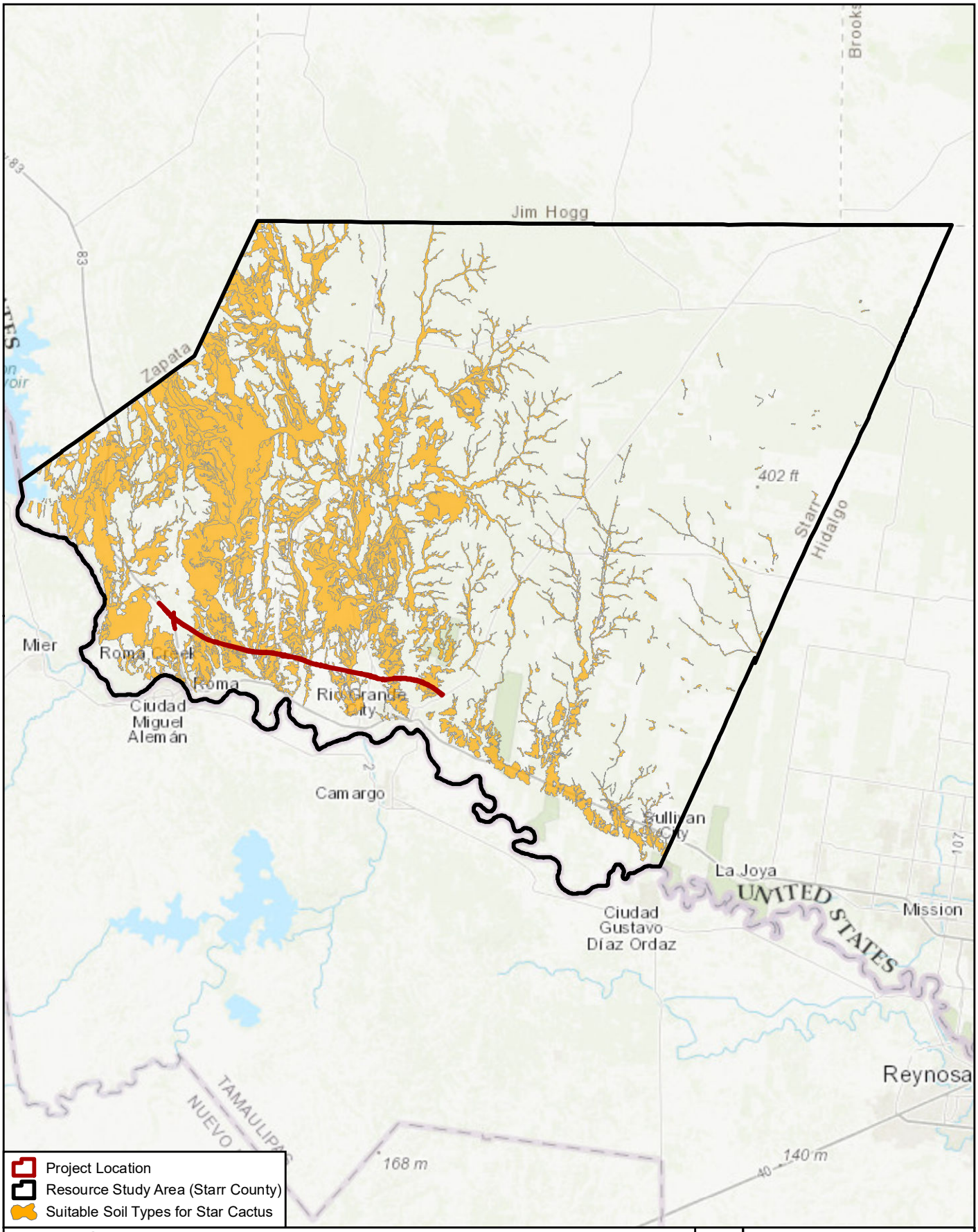


Figure 8a - Resource Study Area for Federally-listed Threatened/Endangered Species

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: NRCS (2016)
Basemap Source: ESRI (2018)

0 7.5 Miles
0 10 Kilometers

Prepared for: TxDOT	1 in = 7.5 miles
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale:1:475,200
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 8_RSA_Fed TE Species_20181218.mxd

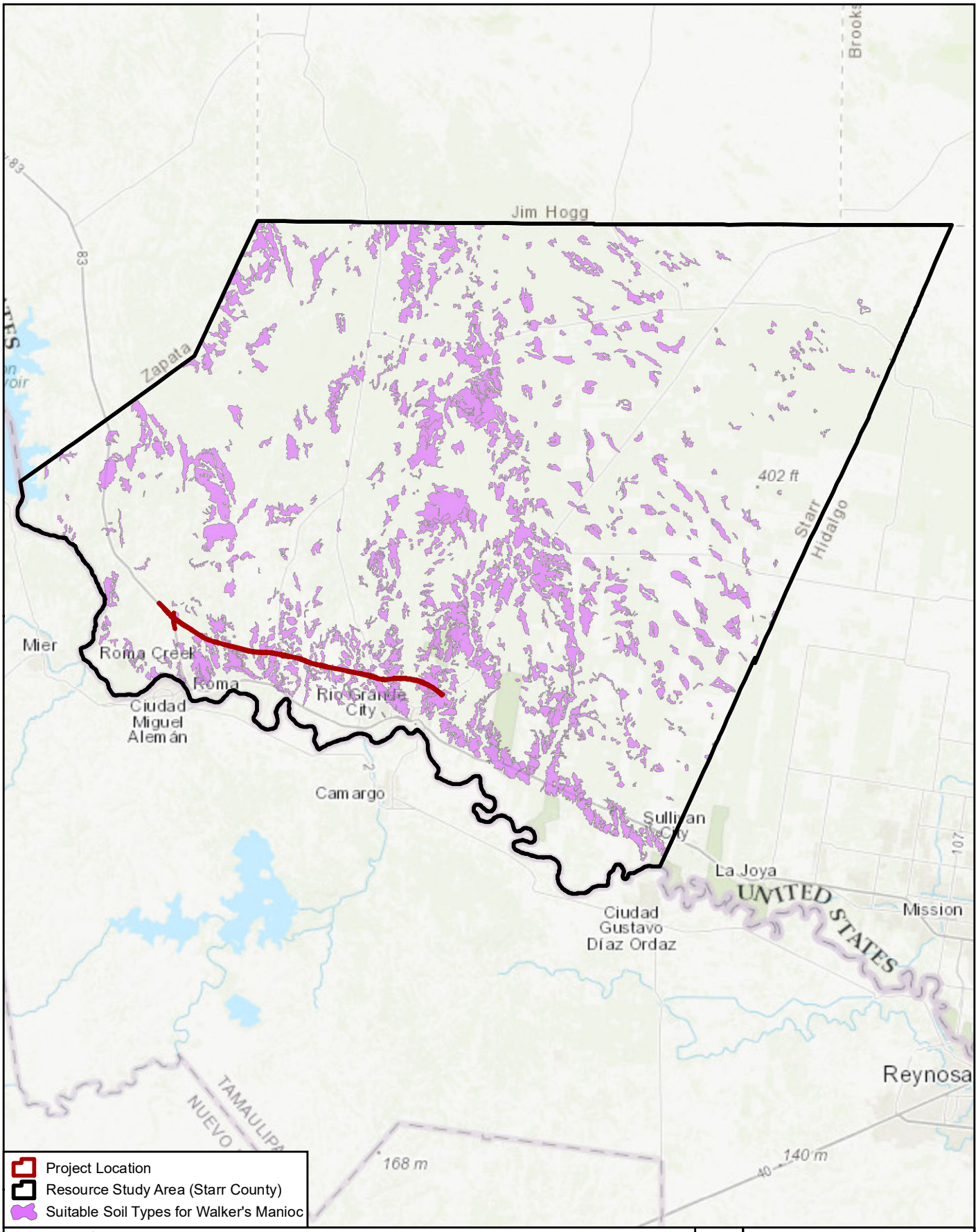


Figure 8b - Resource Study Area for Federally-listed Threatened/Endangered Species

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Data Source: NRCS (2016)
Basemap Source: ESRI (2018)

0 7.5 Miles
0 10 Kilometers

Prepared for: TxDOT	1 in = 7.5 miles
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale:1:475,200
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 8_RSA_Fed TE Species_20181218.mxd

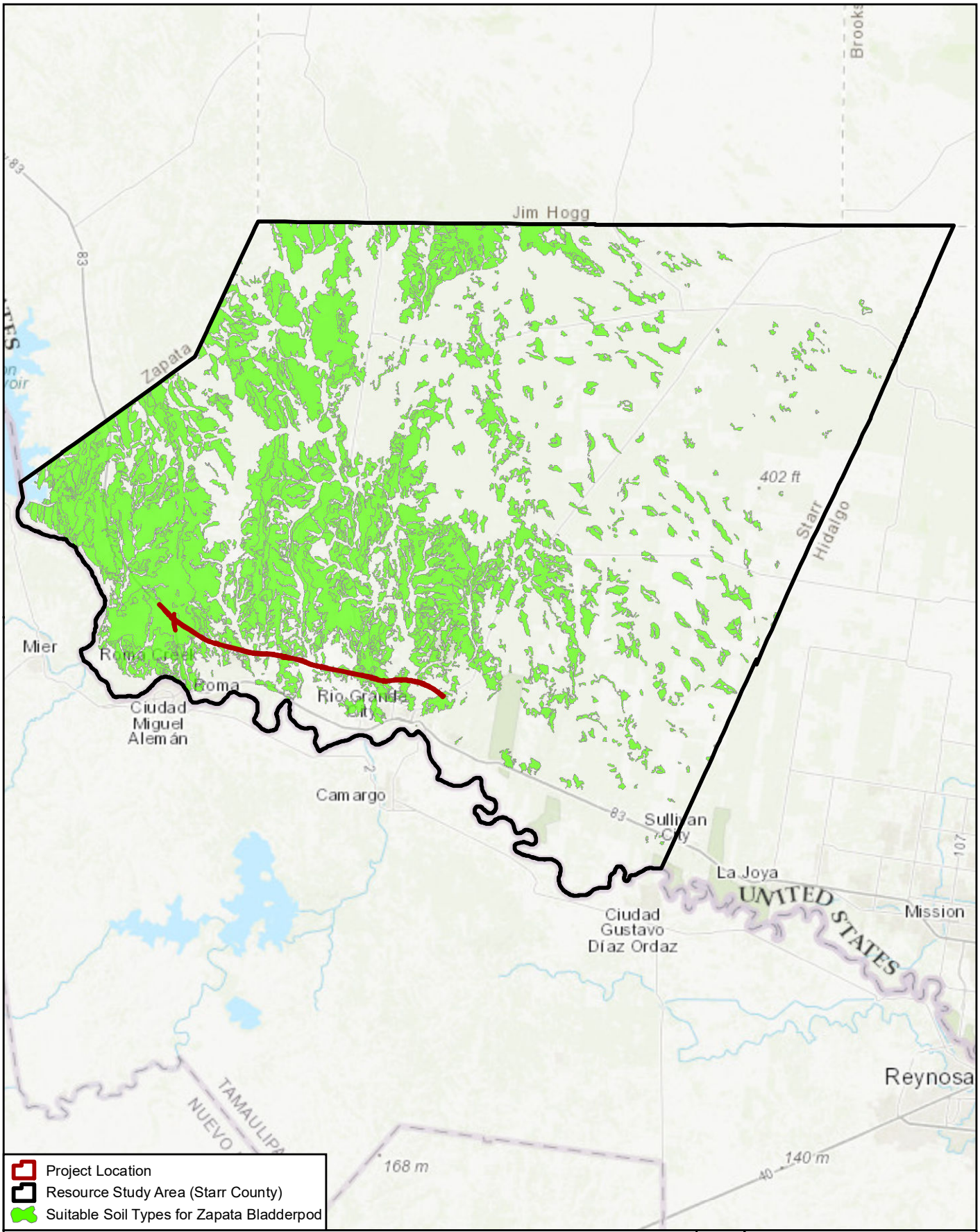


Figure 8c - Resource Study Area

for Federally-listed Threatened/Endangered Species

SL 195 from FM 755 to US 83 –
One Mile NW of the Loma Blanca Intersection

Data Source: NRCS (2016)
Basemap Source: ESRI (2018)

0 7.5 Miles
0 10 Kilometers

Prepared for: TxDOT	1 in = 7.5 miles
CSJ: 3632-01-001, 3632-01-002,	Scale:1:475,200
and 3632-01-003	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 8_RSA_Fed TE Species_20181218.mxd

Figure 9

Recent, Planned, and Proposed Construction

SL 195 from FM 755 to US 83 – One Mile NW of the Loma Blanca Intersection

Project Location
Resource Study Area (Starr County)
Area of Potential Induced Growth
Recently Completed/Currently Under Construction (linear)
Recently Completed/Currently Under Construction
Reasonably Foreseeable Projects

*project locations approximated based on available information

Data Source: TxDOT (2018)
Aerial Sources: NAIP (2016), ESRI (2018)

0 2 Miles
0 3 Kilometers

Prepared for: TxDOT	1 in = 2 miles
CSJ: 3632-01-001, 3632-01-002, and 3632-01-003	Scale1:126,720
	Date: 12/21/2018

G:\Projects\TXDOT\SL195\2018EA_Figure 9_Development_20181218.mxd

Appendix F—Resource Agency Coordination

Tribal Coordination

CHC Coordination

THC Coordination

TPWD Coordination

USFWS Coordination

Texas Department of Transportation

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

February 16, 2017

RE: CSJ: 3632-01-001 SL 195 New Location Roadway Project, Section 106 Consultation; Starr County, Pharr District

To: Representatives of Federally-recognized Tribes with Interest in this Project Area

The above referenced transportation project is being considered for construction by the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT). Environmental studies are in the process of being conducted for this project. 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.

The purpose of this letter is to contact you in order to consult with your Tribe pursuant to stipulations of the Programmatic Agreement among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (PA-TU). The project is located in an area that is of interest to your Tribe.

Undertaking Description

TxDOT's Pharr District is proposing to construct the SL 195 bypass, a new location roadway, from FM 755 to the intersection of US 83 and Loma Blanca Rd in Starr County, Texas (Exhibits A and B).

Area of Potential Effects

The project's area of potential effects (APE) comprises the following area.

- The project limits extend from FM 755 to US 83 approximately 1.15 miles northwest the Loma Blanca Road/US 83 intersection. The total project length is 17.21 miles.
- The proposed new ROW is approximately 17.21 miles in length and varies between 300 to 450 feet in width.
- The latitude and longitude for the end points of the project are:
    - Begin latitude: +26.412473 Begin longitude: -98.759022
    - End latitude: +29.344653 End longitude: -98.744946
- The proposed new right of way comprises an area estimated at 692 acres.

- The typical depth of impact will be approximately 3 feet with a maximum depth of 50 feet for bridge pilings.

- For the purposes of this cultural resources review, the APE also includes an additional 50-foot area around the previously-described horizontal dimensions to account for potential alterations to the proposed APE included in the final project design. Consultation would be continued if potential impacts extend beyond this additional area, based on the final design

Identification Efforts

For this project, TxDOT is currently conducting an archeological survey of the APE. Although this is an ongoing project we wish to communicate our initial findings and will continue consultation with you as the project progresses. As a new location roadway, the project APE includes a considerable amount of new right of way in previously-undeveloped lands in a setting favorable for occupation.

TxDOT conducted a survey in May, 2016 and identified eleven archeological sites. Eight are previously recorded sites and include 41SR242, 41SR243, 41SR378, 41SR379, 41SR383, 41SR384, 41SR385, and 41SR386. Three new sites were encountered during the survey and include 41SR417, 41SR418, and 41SR419. The Texas Historical Commission's Archeological Sites Atlas (Atlas) indicates six additional previously recorded archeological sites within the APE and will be assessed once right of entry is granted to these areas. The sites include 41SR234, 41SR381, 41SR382, 41SR387, 41SR388, and 41SR389.

The survey found that the project's APE has been subjected to varying degrees of disturbance by prior activities related to rural land use such as brush clearing and root plowing. Such activities would have impacted archeological at some of the locations while at other locations impacts were moderate or minimal. As a result, ten of the sites surveyed are either sufficiently disturbed or have few artifacts no further work was recommended. Additional survey is recommended for six sites and one site is recommended for National Register of Historic Places (NRHP) testing .

Findings and Recommendations

Based on the results of the archeological survey referenced above, TxDOT proposes the following findings and recommendations. As shown in Table 1, the ongoing survey of the APE has determined sites 41SR243,376, 377, 379, 383, 385, 388, 389, 417, and 418 lack sufficient integrity of location, association, and materials to be able to address important questions of history and prehistory (36 CFR 60.4) and no further work is recommended for these sites. Additional survey is warranted for sites 41SR234, 378, 381, 382, 387and 419 due to ROE issues and the need for mechanical trenching. Based on the results of survey, site 41SR242 is recommended for NRHP Testing. TxDOT will continue consultation once the testing is completed.

TxDOT will also continue consultation on the concluding results of the ongoing survey and requests that:

- that a zone of 50 feet beyond the horizontal project limits be considered as part of the cultural resources evaluation; and

- if any future changes to the project APE extend beyond the additional 50-foot zone or if archeological deposits are discovered, your Tribe would then be contacted for further consultation.

Site Number	Site Type	Recommendation	Right of Entry (ROE)
41SR234	Prehistoric Lithic Scatter	Survey Once ROE Obtained	Denied
41SR242	Historic Artifact Scatter and Prehistoric Lithic Scatter	Further Fork Recommended (National Register Testing)	Yes
41SR243	Prehistoric Lithic Scatter	No Further Work	Yes
41SR376	Prehistoric Lithic Scatter	No Further Work	Yes
41SR377	Prehistoric Lithic Scatter	No Further Work	Yes
41SR378	Prehistoric Lithic Scatter	Further Work Recommended (Additional Trenching)	Yes
41SR379	Prehistoric Lithic Scatter	No Further Work	Yes
41SR381	Prehistoric Lithic Scatter	Survey Once ROE Obtained	Denied
41SR382	Prehistoric Lithic Scatter	Survey Once ROE Obtained	Denied
41SR383	Prehistoric Lithic Scatter	No Further Work	
41SR384	Prehistoric Lithic Scatter	Further Work Recommended (Additional Trenching)	Yes
41SR385	Prehistoric Lithic Scatter	No Further Work	Yes
41SR387	Prehistoric Lithic Scatter	Survey Once ROE Obtained	Denied
41SR388	Prehistoric Lithic Scatter	No Further Work	Yes
41SR389	Prehistoric Lithic Scatter	No Further Work	Yes
41SR417	Prehistoric Lithic Scatter	No Further Work	Yes
41SR418	Prehistoric Lithic Scatter	No Further Work	Yes
41SR419	Prehistoric Lithic Scatter	Further Work Recommended (Continue Delineation Once ROE to Adjacent Property Obtained)	Yes * (*Adjacent Property Denied ROE)

Table 1. Archeological Sites within the APE

According to our procedures and agreements currently in place regarding consultation under Section 106 of the National Historic Preservation Act, we are writing to request your comments on historic properties of cultural or religious significance to your Tribe that may be affected by the proposed project APE and the area within the above defined buffer. Any comments you may have on the TxDOT findings and recommendations should also be provided. Please provide your comments within 30 days of receipt of this letter. Any comments provided after that time will be addressed to the fullest extent possible. If you do not object that the proposed findings and recommendations are appropriate, please sign below to indicate your concurrence. In the event that further work discloses the presence of archeological deposits, we will contact your Tribe to continue consultation.

Thank you for your attention to this matter. If you have questions, please contact Christopher Ringstaff (TxDOT Archeologist) at 512/416-2647 (email: chris.ringstaff@txdot.gov) or Sarah Stroman at 512/416-2608 (email: Sarah.Stroman@txdot.gov). When replying to this correspondence by US Mail, please ensure that the envelope address includes reference to the Archeological Studies Branch, Environmental Affairs Division.

Sincerely,

Scott Pletka, Deputy Section Director
Environmental Affairs Division

_____ _____

Concurrence by: Date:

Enclosure

cc w/ enclosure: ENV-ARCH ECOS

Exhibit A. County Map

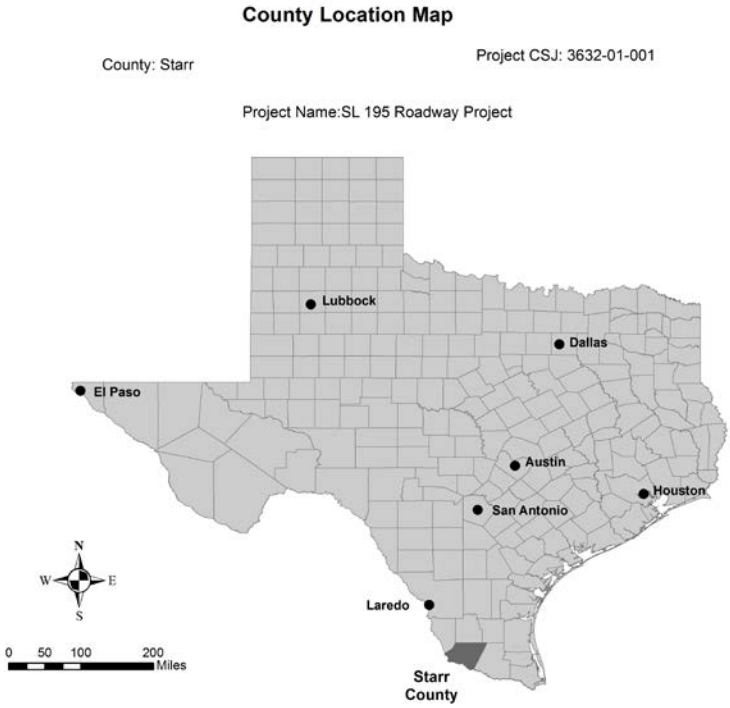


Exhibit B. SL 195 Project Location, Starr County, Texas

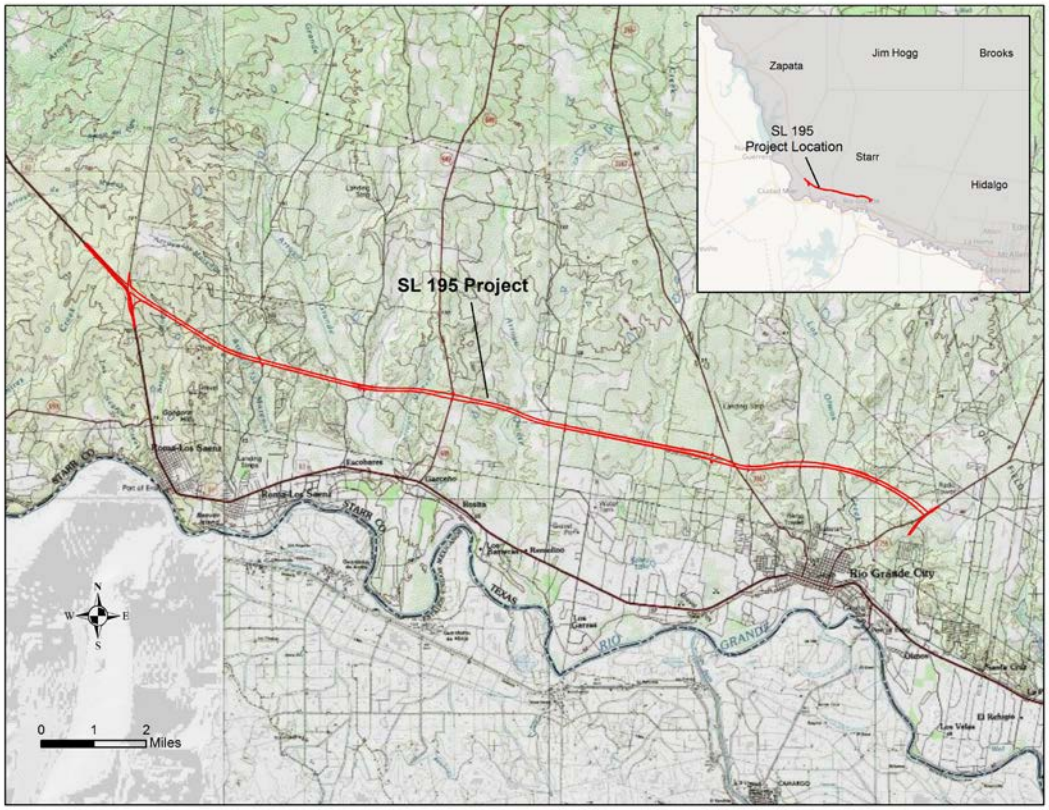
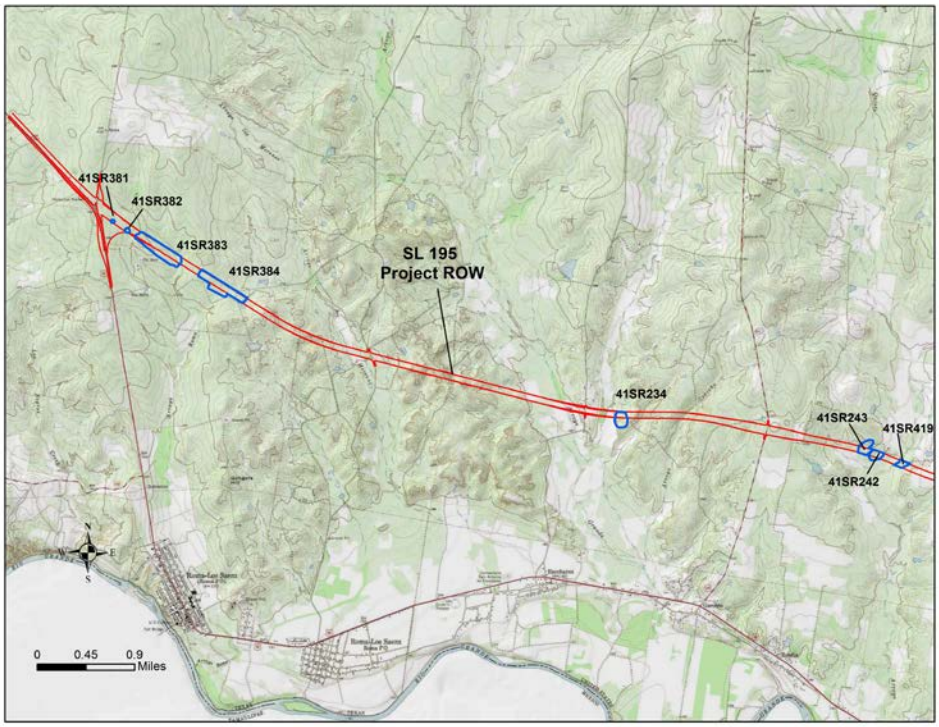
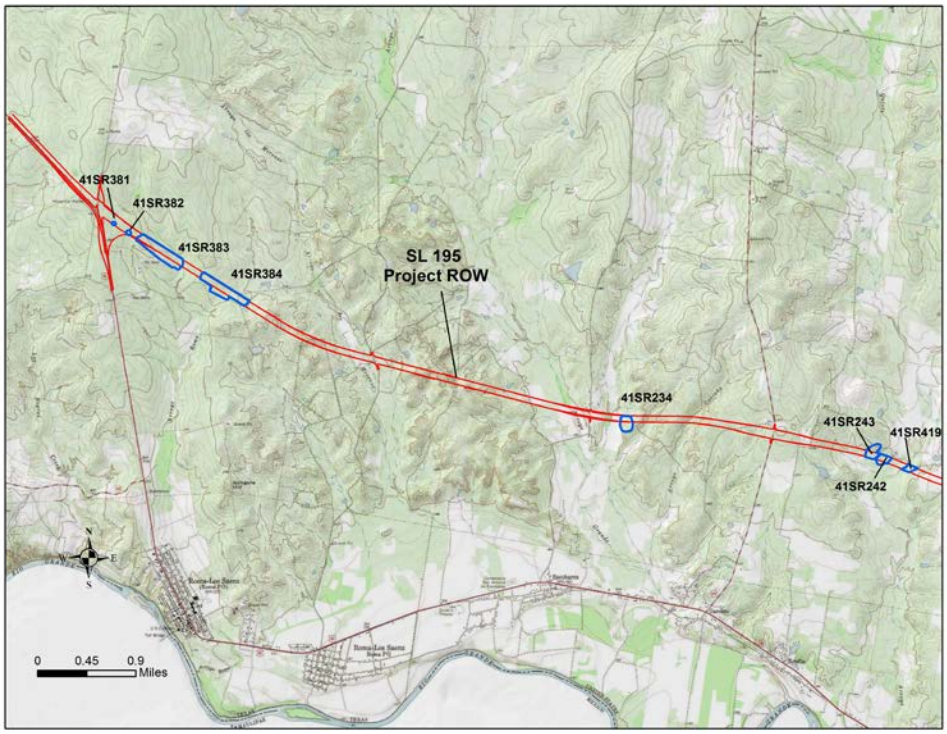


Exhibit C. Recorded Archeological Sites within the SL 195 ROW.





Sarah Stroman

From: Sarah Stroman
Sent: Thursday, February 16, 2017 9:00 AM
To: prentissdonna@yahoo.com; theodorev@comanchenation.com; kellie@tribaladminservices.org; kbo@kiowatribe.org; holly@mathpo.org; lbrown@tonkawatribe.com; mallen@tonkawatribe.com
Subject: Section 106 Consultation, Texas Department of Transportation, CSJ 363201001
Attachments: 363201001Consultation_Request_02-16-2017.pdf

Good morning,

We kindly request your comments on a proposed undertaking. Please see the attached letter for project details and information. Thank you in advance for your consideration.

Regards,
Sarah Stroman
Information Specialist

Sarah G. Stroman

Texas Department of Transportation
Environmental Affairs Division
118 E. Riverside Drive
Austin, TX 78704

512/416-2608 Office
512/550-9306 Mobile
512/416-2746 Fax

Mailing Address:
125 E. 11th Street
Austin, TX 78701

Sarah.Stroman@txdot.gov

Apache Tribe of Oklahoma

Environmental Program

P.O. Box 1330
Anadarkko, Oklahoma 73005

Date: 3-17-2017

Company: Texas D.O.T.

Address: 125 East 11th St., Austin, TX. 780701

Project location/number CSJ: 3632-01-001 SL 195

The above reference has been reviewed by the Apache Tribe of Oklahoma Environmental Office for your project. In regards to this project the reference location lies within aboriginal territory of the Plains Apache Tribe of Oklahoma and may contain cultural and archaeological materials of significance to the Apache Tribe of Oklahoma. During the course of the project, if cultural or archeological materials are encountered, please notify our office immediately at (405) 247-9493 ext. 109 or ext. 111. Thank you for your consideration in all these matters.

Sincerely,

Donna Prentiss

ATEP Director
Donna Prentiss

[X] ***Possible Archeological***

[ ] ***Non-Archaeological***

Please contact the Apache Tribe of Oklahoma Environmental Office on any significant Archaeological or Cultural discoveries.

Fax (405) 247-2763

ATEP (405)247-9493 ext. 109 or 111

TONKAWA TRIBE OF OKLAHOMA

NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION ACT (NAGPRA)

1 RUSH BUFFALO ROAD - PHONE (580) 628-2561 - FAX (580) 628-2279
TONKAWA, OKLAHOMA 74653
www.tonkawatribe.com

March 16, 2017

Texas Department of Transportation
Attn: Scott Pletka, Deputy Section Director
Environmental Affairs Division
125 East 11th Street
Austin, TX 78701-2483

Re: Section 106 Request for Consultation: CSJ: 3632-01-001 SL 195 New Location Roadway Project, Starr County, Pharr District, Texas

Dear Mr. Pletka:

On behalf of President Russell L. Martin and the Tonkawa Tribe of Oklahoma in regards to: *Section 106 Consultation, CSJ: 3632-01-001 SL New Location Roadway Project, Starr County, Pharr District, greatly appreciate the notification to consult with the Tonkawa Tribe of Indians of Oklahoma (TTIO) pursuant to stipulations of the Programmatic Agreement among the Federal Highway Administration , the Texas Department of Transportation (TxDOT), the Texas State historic Preservation Officer , and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings due to archeological survey of the Area of Potential Effect (APE) of project – identified are eleven (11) sites, eight (8) previously recorded, Starr County, Pharr District, Texas. The understanding and acknowledgement of both parties (TxDOT and TTIO) regarding consultation under Section 106 of the National Historic Preservation Act presents the following;* The Tonkawa Tribe has no specifically designated historical, religious and/or cultural significance in the Proposed Project Area;

However if any human remains, funerary objects, or other evidence of historical or cultural significance is inadvertently discovered then the Tonkawa Tribe would certainly be interested in proper disposition thereof. The Tribe requests the eligible locations once established and/or determined.

The Tonkawa Tribe is willing to work with you and your representatives in any manner to uphold the provisions of NAGPRA to the extent of our capabilities as well as yours. Great success on this project and for those it will serve.

Respectfully,

Lauren J. Norman-Brown
NAGPRA Coordinator
(580) 628-7027

lbrown@tonkawatribe.com

COMANCHE NATION

Texas Department of Transportation
Attn: Ms. Sarah Stroman
125 East 11th Street
Texas 78701-2483

March 22, 2017

Re: CSJ: 3632-01-001 SL 195 New Location Roadway Project,
Section 106 Consultation; Starr County, Pharr District

Dear Ms. Stroman :

In response to your request, the above reference project has been reviewed by staff of this office to identify areas that may potentially contain prehistoric or historic archeological materials. The location of your project has been cross referenced with the Comanche Nation site files, where an indication of ***"No Properties"*** have been identified. (IAW 36 CFR 800.4(d)(1)).

Please contact this office at (580) 595-9960/9618 if you require additional information on this project.

This review is performed in order to identify and preserve the Comanche Nation and State cultural heritage, in conjunction with the State Historic Preservation Office.

Regards

Comanche Nation Historic Preservation Office
Theodore E. Villicana ,Technician
#6 SW "D" Avenue , Suite C
Lawton, OK. 73502

Texas Department of Transportation

600 W. Interstate 2, PHARR, TEXAS 78577-1231 | 956.702.6100 | WWW.TXDOT.GOV

March 11, 2020

Daniel Trevino
Starr County Historical Commission
101 Kennedy St.,
Rio Grande City, TX 78582

Re: Proposed Relocation of Mission Mier a Visita Marker, Starr County
CSJs 3632-01-001, 3632-01-002, and 3632-01-003

Dear Mr. Trevino:

The Texas Department of Transportation (TxDOT) proposes to construct State Loop (SL) 195, a new-location four-lane divided rural highway between Farm to Market 755 and US Highway 83 in Starr County. The proposed project would require the relocation of the Mier a Visita historic marker. The marker is a gray granite 1936 Texas Centennial Marker, located just east of Loma Blanca Road at its intersection with US 83 (see attached map). The marker is not tied specifically to the location—it is within "the vicinity" of the marker topic, and the proposed new location will not change that.

The marker must be relocated because it would be displaced by the proposed roadway. TxDOT proposes to relocate the marker near the existing marker location along the new right of way. A Request to Relocate an Official Texas Historic Marker will be filed with the Texas Historical Commission but requires us to coordinate the new location with the county via the Starr County Historical Commission (CHC).

With this letter, TxDOT seeks the approval of the Starr CHC for the relocation of the marker. Please sign the form and return it to us and let us know if you have any concerns. You can use the attached comments sheet if that is useful to you. Thank you for your assistance on this project. If you should need further information concerning this project, please contact me at (956) 702-6243. Please send your response via email to Edward.paradise@txdot.gov or by mail, to 600 W. Interstate 2, Pharr, Texas, 78577-1231.

Sincerely,

Edward J. Paradise

Edward J. Paradise
TxDOT Pharr District Environmental Project Manager

Enclosures: project location map, Mier a Vista marker location map, Photo Document

TEXAS HISTORICAL COMMISSION

REQUEST TO RELOCATE AN OFFICIAL TEXAS HISTORICAL MARKER

Marker Title: Mission Mier a Visita Marker

County: Starr

Current location (including nearest city): The marker is located just east of Loma Blanca Road at its intersection with US 83 in Roma, Texas.

Proposed location: The marker would be relocated near the existing marker location along the new right of way.

Reason for requesting relocation: The marker must be relocated because it would be displaced by the proposed SL 195 roadway.

Who will be responsible for the relocation? (THC cannot assume liability for damages or injuries.)
Name: TxDOT Signature: Robin Gelston

Address: 600 W. Interstate 2

City: Pharr State: TX Zip: 78577-1231
Daytime phone: 956.702.6100 Fax: _____ Email: _____

Approval of county historical commission:
County chair or marker chair (name): Daniel Trevino

Address: 101 Kennedy St.

City: Rio Grande City State: Texas Zip: 78542
Daytime phone: 956.500.0460 Fax: _____ Email: _____
Signature: _____

Permission of property owner at proposed new location:
Name: TxDOT Signature: Robin Gelston

Address: 600 W. Interstate 2

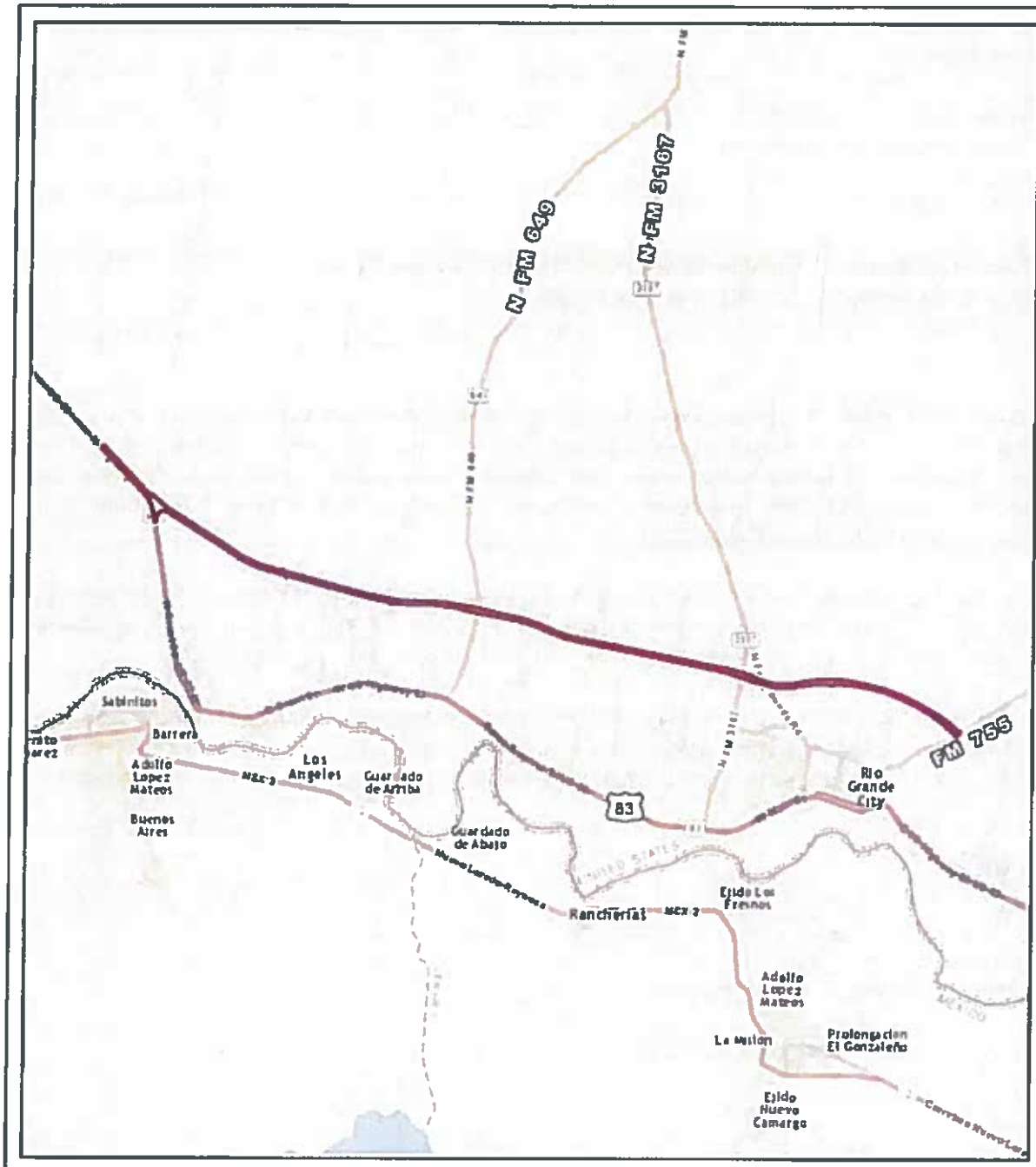
City: Pharr State: TX Zip: 78577-1231

Revised 1.2020

Texas Historical Commission
P.O. Box 12276
Austin, TX 78711-2276
512.463.6100
fax 512.475.4872
thc@thc.texas.gov

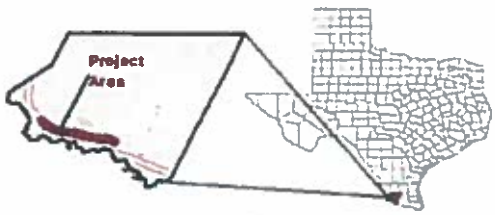
TEXAS HISTORICAL COMMISSION
real places telling real stories

www.thc.texas.gov



Project Location

Starr County



Source: ESRI (2013)

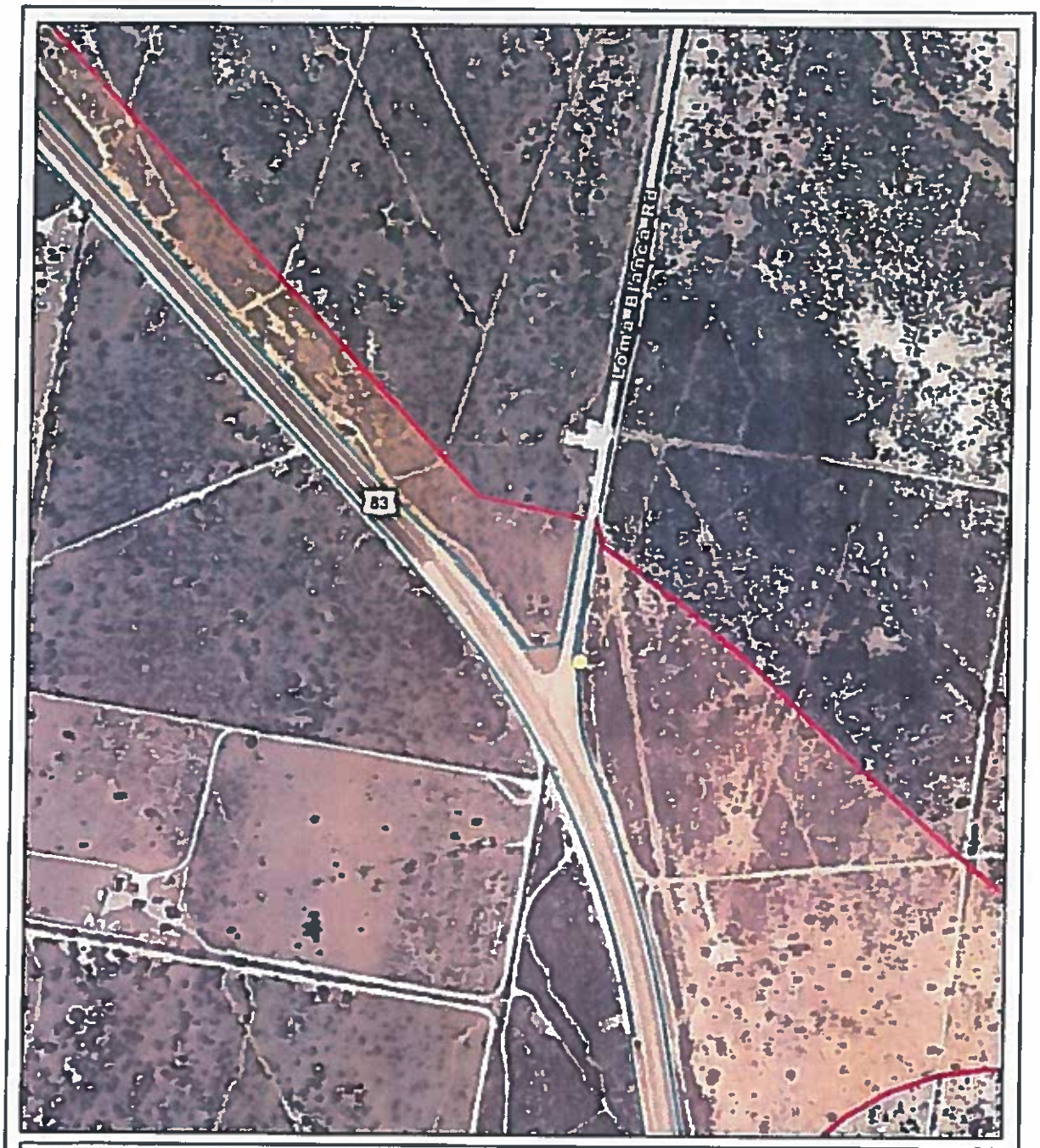
0 3 Miles
0 3 Kilometers

SL 195

Project Location

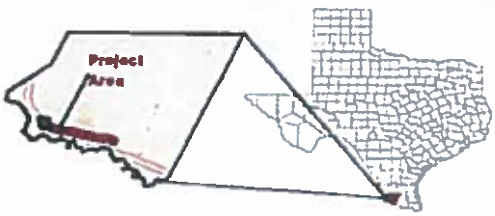
Prepared for: TxDOT	1 in = 3 miles
Project No: 017-004-004	Scale: 1:190,080
Prepared by: SL	Date: 7/28/2014

G:\Projects\TXDOT\SL195\MXDs\Hist - General Proj Loc_20140728.mxd



Project Location
Existing Right-of-Way
Proposed Right-of-Way
Historical Marker

Starr County



0 500 Feet
0 150 Meters

SL 195

Mission Mier a Visita Historical Marker Location

Prepared for: TxDOT	1 in = 500 feet
Project No.: 017-004-008	Scale: 1:6,000
Prepared by: SL	Date: 7/28/2014

Source: ESRI (2013)

G:\Projects\TXDOT\SL195\MXDs\Hist - Mission Mier a Vista Loc_20140728.mxd

Historical Marker SL 195

A view of the Mission Mier a Visita historic marker located just east of Loma Blanca Road, at its intersection with US 83. The marker is a gray granite 1936 Texas Centennial Marker.

The marker reads: In the vicinity of this site was Mission Mier a Visita, established in 1750 as a part of Jose de Escandon's project to settle the region and civilize and Christianize the Indians.

View shows the rear side of the Mission Mier a Visita marker.

TEXAS HISTORICAL COMMISSION

REQUEST TO RELOCATE AN OFFICIAL TEXAS HISTORICAL MARKER

Marker Title: Mission Mier a Visita Marker

County: Starr

Current location (including nearest city): The marker is located just east of Loma Blanca Road at its intersection with US 83 in Roma, Texas.

Proposed location: The marker would be relocated near the existing marker location along the new right of way.

Reason for requesting relocation: The marker must be relocated because it would be displaced by the proposed SL 195 roadway.

Who will be responsible for the relocation? (THC cannot assume liability for damages or injuries.)
Name: TxDOT Signature: Robin Gelston

Address: 600 W. Interstate 2

City: Pharr State: TX Zip: 78577-1231
Daytime phone: 956.702.6100 Fax: _____ Email: _____

Approval of county historical commission:
County chair or marker chair (name): Daniel Trevino

Address: 101 Kennedy St.

City: Rio Grande City State: Texas Zip: 78542
Daytime phone: 956.500.0460 Fax: _____ Email: Dan3vino@yahoo.com
Signature: Daniel Trevino

Permission of property owner at proposed new location:
Name: TxDOT Signature: Robin Gelston

Address: 600 W. Interstate 2

City: Pharr State: TX Zip: 78577-1231

Revised 1.2020

TEXAS HISTORICAL COMMISSION

Daytime phone: 956.702.6100 Fax: _____ Email: _____

Please send this form along with the following to markers@thc.texas.gov:

1. A current photograph of the proposed marker location.
2. A city or county map denoting the current and proposed locations.
3. A current photograph of marker.

Revised 1.2020

Texas Historical Commission
P.O. Box 12276
Austin, TX 78711-2276
512.463.6100
fax 512.475.4872
thc@thc.texas.gov

ETS

ARCHEOLOGICAL COORDINATION

Archeological Surveys, No Further Work Recommended

(Section 106 and ANTIQUITIES CODE OF TEXAS)

From : 12/14/2006 To: 12/20/2006

COUNTY	DISTRICT	PROJECT	CSJ	*F30/T20 Concur, no further work	*F10/T10 Unable to Concur
Brazoria	Houston	SH 288	0598-02-044		
Brazoria	Houston	FM 865	0976-02-083		
Cameron	Pharr	FM 1847	1801-01-041		
Harris	Houston	CS	0912-72-002		
Harris	Houston	FM 865	0976-01-019		
Starr	Pharr	US 83 Relief Route	0921-26-004		
Waller	Houston	FM 1098	0523-01-025		

Number of Projects: 7

Signature _____
For FHWA and TxDOT

Date 12/21/06

Attachment

MEMORANDUM

Texas Department of Transportation

TO: 850 File, Various Road Projects, Various CSJs, Various Districts

FROM: Lisa J. Hart, Dir. of Cultural Resource Mgmt. **DATE:** December 20, 2006

SUBJECT: Internal review under the Programmatic Agreement (PA) Among the Federal Highway Administration, Texas Historical Commission, Advisory Council on Historic Preservation, and the Texas Department of Transportation; and the Memorandum of Understanding (MOU) Between the Texas Historical Commission and the Texas Department of Transportation

---

Attached are the lists of projects reviewed internally by qualified TxDOT archeologists from 12/14/2006 to 12/20/2006. These projects either do not warrant survey as a result of no potential to affect archeological historic properties or low probability of encountering archeological historic properties, or they were inspected by survey or impact evaluation, and do not warrant further work. As provided under the First Amended Programmatic Agreement Among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings, consultation with SHPO is not necessary for these undertakings.

Signature _____ Date 12/21/06
For FHWA and TxDOT

Attachment

Cc: Project Management; PA File; Archeologists

d:\documents and settings\elamey\desktop\internal review list memo-b.doc

ARCHEOLOGICAL SURVEY OF THE PROPOSED US 83 RELIEVER ROUTE FROM ROMA TO RIO GRANDE CITY IN STARR COUNTY, TEXAS

Written by:
Brian King and Rachel Feit

Principal Investigator:
Rachel Feit

Texas Antiquities Permit No. 4199

Submitted to:
Texas Department of Transportation

CSJ: 0921-26-0004

Prepared by:
Hicks and Company
Austin, Texas

Archeology Series No. 167

November 2006

Texas Department of Transportation

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

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DEC 13 2018

December 12, 2018

Section 106 Consultation/ Antiquities Code of Texas
Transmittal of TxDOT Interim Testing Report; *NRHP Testing at 41SR242, The Cornelio Alvarez Site, Starr County, Texas.*
Pharr District, CSJ: 03632-01-001
THC Antiquities Permit No.7912

Ms. Pat Mercado-Allinger,
Division of Archeology, Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711

Dear Ms. Mercado-Allinger:

The above proposed project will be undertaken with state and federal funds. As required by the Programmatic Agreement Among the Federal Highway Administration, Texas State Historic Preservation Office, Advisory Council on Historic Preservation, and the Texas Department of Transportation Regarding the Implementation of Transportation Undertakings (PA-TU) and the Memorandum of Understanding with your agency, we are continuing consultation with your office on this project and are enclosing for your review and processing an interim report of an archeological testing project recently conducted by TxDOT for the undertaking.

TxDOT conducted NRHP testing at the 41SR242 in February and April 2017 under Antiquities Permit 7912. The site consists of a multi-component site spanning from the Early Archaic to the mid-Twentieth Century. Excavations in the Holocene sediments at the site have produced three features dating to the Middle Archaic and one of unknown age. Holocene sediments containing archeological materials and features in the uplands in the regions are rare. Given the rarity of buried sites in the uplands of the Starr County, TxDOT is recommending this is eligible for listing to the National Register of Historic Places. An interim report of investigation is enclosed.

TxDOT seeks THC concurrence that:

1. As detailed in the attached interim report, TxDOT concludes that 41SR242 is considered eligible for listing in the NRHP (36 CFR 60.4) and designation as an SAL (13 TAC 26.8) based on integrity of location, association, and materials to be able to address important questions of prehistory or history (36CFR60.4). Given the preliminary findings presented in the interim report, additional investigation at 41SR242 is recommended and a draft final of the testing report

will be forthcoming. Thank you for your consideration of this matter. If you have any questions regarding the interim report, please contact me at 416-2647.

Sincerely,

Christopher Ringstaff, Archeological Studies Program
Environmental Affairs Division

Cc w/attachment: Robin Gelston, TxDOT Pharr District Environmental Coordinator, Christopher Ringstaff ENV-Arch TxDOT

cc w/o attachments: ECOS Scan

Concurrence By:

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

12/13/18
Date

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.

Texas Department of Transportation

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RECEIVED
JAN 10 2019

January 9, 2019

Section 106 Consultation/ Antiquities Code of Texas
Transmittal of TxDOT Interim Testing Report; *NRHP Testing at 41SR459, Starr County, Texas.*
Pharr District, CSJ: 03632-01-001
THC Antiquities Permit No.8585

Ms. Pat Mercado-Allinger,
Division of Archeology, Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711

Dear Ms. Mercado-Allinger:

The above proposed project will be undertaken with state and federal funds. As required by the Programmatic Agreement Among the Federal Highway Administration, Texas State Historic Preservation Office, Advisory Council on Historic Preservation, and the Texas Department of Transportation Regarding the Implementation of Transportation Undertakings (PA-TU) and the Memorandum of Understanding with your agency, we are continuing consultation with your office on this project and are enclosing for your review and processing an interim report of an archeological testing project recently conducted by TxDOT for the undertaking.

TxDOT conducted NRHP testing at the 41SR459 in October 2018 under Antiquities Permit 8585. The site consists of a prehistoric open campsite with occupation that spans, based on diagnostic artifacts, from the Middle Archaic to the Late Prehistoric. A total of sixteen surficial to partially exposed burned rock features were recorded during the project many having apparent spatial integrity despite their exposure. Of these, four were excavated for the NRHP Testing based on integrity and variation in rock type used in the features.

Excavations within an area of Holocene sediments at the site produced two additional thermal features with carbonized material. Both were excavated. Radiocarbon analysis will be forthcoming and presented in the final testing report. With the history of land-use in Starr County (specifically brush clearing), intact Holocene sediments containing archeological materials and features in the uplands are rare.

Given the presence of intact Holocene sediments containing archeological materials at 41SR459 as well as numerous exposed and partially exposed burned rock features also present at the site, TxDOT is recommending site 41SR459 as eligible for listing to the National Register of Historic Places. An interim report of investigation is enclosed.

TxDOT seeks THC concurrence that:

1. As detailed in the attached interim report, TxDOT concludes that 41SR459 is considered eligible for listing in the NRHP (36 CFR 60.4) and designation as an SAL (13 TAC 26.8) based on integrity of location, association, and materials to be able to address important questions of prehistory or history (36CFR60.4). Given the preliminary findings presented in the interim report, additional investigation at 41SR459 is recommended and a draft final of the testing report will be forthcoming. Thank you for your consideration of this matter. If you have any questions regarding the interim report, please contact me at 416-2647.

Sincerely,

Christopher Ringstaff, Archeological Studies Program
Environmental Affairs Division

Cc w/attachment: Robin Gelston, TxDOT Pharr District Environmental Coordinator, Christopher Ringstaff ENV-Arch TxDOT

cc w/o attachments: ECOS Scan

Concurrence By:

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

1/18/19
Date

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.

Texas Department of Transportation

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RECEIVED

JUL 19 2018

July 19, 2018

Section 106 Consultation/ Antiquities Code of Texas
Transmittal of TxDOT Survey Report; *State Loop 195 between FM 755 and US 83, Starr County, Texas*
Pharr District, CSJ: 3632-01-001
THC Antiquities Permit No. 7655

Ms. Pat Mercado-Allinger,
Division of Archeology, Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711

Dear Ms. Mercado-Allinger:

The above proposed project will be undertaken with state and federal funds. As required by the Programmatic Agreement (PA, 2015) and the Memorandum of Understanding with your agency, we are continuing consultation with your office on this project and are enclosing for your review and processing a draft report of an archeological survey recently conducted by TxDOT for the undertaking.

SWCA conducted an Intensive Archeological Survey on behalf of TxDOT and examined the proposed new ROW in an Area of Potential Effect (APE) for the 17.1-mile new location SL 195 Project in Starr County. The project totals approximately 824.5 acres. Previous cultural resources investigations by Hicks and Company on behalf of TxDOT (2006) evaluated 458.9 acres of the overall project area. Hicks conducted the survey under Permit 4199 and assessed fourteen sites including 41SR234, 41SR242, 41SR243, 41SR342, 41SR376–379, 41SR381, 41SR383–386, 41SR389. As no Archeological Historic Properties were encountered, the report was coordinated internally on 12/21/2006 under the PA-TU with FHWA and MOU with THC.

For the remaining 365.6 acres of the APE, SWCA conducted cultural resources investigations under the current permit (7655) in 2016 and 2018 encompassing 276.4 acres of the overall project area. Cumulatively, 735.3 acres (89 percent) of the SL 195 project alignment has been evaluated while the remaining non-access (denied Right of Entry) parcels account for 89.2 acres of the total project. The cumulative efforts of these cultural resources investigations recorded 23 archeological sites (41SR234, 41SR242, 41SR243, 41SR342, 41SR376–379, 41SR381, 41SR383–386, 41SR389, 41SR417–41SR419, 41SR425, and 41SR458–462) within the APE (Table 1).

Site No.	Site type	Description	NRHP and SAL Eligibility
41SR234	Prehistoric	Lithic scatter	Not eligible
41SR242	Multi-component	Prehistoric campsite/Historic structure	**Undetermined**
41SR243	Multi-component	Prehistoric lithic scatter and historic foundation	Not eligible
41SR342	Prehistoric	Lithic scatter	Not eligible
41SR376	Multi-component	Lithic scatter/Historic artifact scatter	Not eligible
41SR377	Prehistoric	Lithic surface scatter	Not eligible
41SR378	Prehistoric	Lithic scatter	Not eligible
41SR379	Prehistoric	Quarry and lithic production site	Not eligible
41SR381	Prehistoric	Lithic scatter	Not eligible
41SR383	Prehistoric	Lithic scatter	Not eligible
41SR384	Prehistoric	Lithic scatter	Not eligible
41SR385	Prehistoric	Lithic scatter	Not eligible
41SR386	Prehistoric	Campsite	Not eligible
41SR389	Prehistoric	Campsite	Not eligible
41SR417	Prehistoric	Lithic scatter, and burned rock scatter.	Not eligible
41SR418	Prehistoric	Lithic scatter	Not eligible
41SR419	Prehistoric	Campsite	Not eligible
41SR425	Prehistoric	Lithic scatter	Not eligible
41SR458	Prehistoric	Lithic scatter	Not eligible
41SR459	Prehistoric	Campsite	**Undetermined**
41SR460	Prehistoric	Campsite	Not eligible
41SR461	Multi-component	Historic foundation and artifact scatter, Prehistoric lithic scatter	Not eligible
41SR462	Prehistoric	Multi-component campsite	**Eligible**

Table 1. Recorded Sites within the APE and recommendations.

These sites are predominantly prehistoric campsites or lithic scatters, but four sites are multi-component containing prehistoric and historic early-middle twentieth century assemblages. Twenty sites 41SR234, 41SR243, 41SR342, 41SR376–381, 41SR383, 41SR384, 41SR385, 41SR386, 41SR389, 41SR417–41SR419, 41SR425, 41SR458, 41SR460, and 41SR461 are recommended as not eligible for NRHP or SAL designation. Two sites 41SR242 and 41SR459 have undetermined eligibility and warrant avoidance or further investigation. Site 41SR242 is a multi-component site consisting of a Late Archaic camp site with a dense scatter of burned rock and lithic debris and a historic component of unknown age. Based on the initial survey which included SWCA's intensive shovel testing and TxDOTs backhoe trenching, the discovery of a high density debitage feature in apparent intact sediments supported additional work was warranted to determine NRHP and SAL eligibility. Site 41SR242 was tested in February and March 2017 with the results of the investigations forthcoming to the SHPO once the analysis is completed. Site 41SR459 is a prehistoric campsite with surficial and buried deposits consisting of a hearth field (i.e., multiple hearths) and lithic scatter. Due to the buried deposits and abundant earth oven features suggesting an overall high research value, SWCA recommended avoidance or additional work (i.e., test excavations) to determine the eligibility for designation as an SAL or for inclusion in the NRHP.

41SR462 is a buried multi-component site on Los Olmos Creek containing a dense prehistoric artifact assemblage dating to the Middle Archaic. The site has intact buried, possibly stratified deposits, with an assortment of cultural materials suggesting varied cultural activities suggesting an overall high research value and is considered eligible for listing to the NRHP under Criteria D and as an SAL based on the rarity of the site type, integrity, geomorphic setting, and overall lack of historic land-use modification which is almost unprecedented in the region.

TxDOT seeks THC concurrence that:

1. SWCA conducted a survey on behalf of TxDOT under TAC 7655 to access the potential to affect archeological historic properties (36 CFR Part 800.16(1) or State Archeological Landmarks (13 TAC 26.12). Fourteen previously recorded sites previously assessed and coordinated under Permit 4199 (detailed above) and nine newly recorded sites are located within the APE (see Table 1) and assessed for listing to the NRHP (36 CFR 60.4) or for designation as a SAL (13 TAC 26.8). Based on the results of the survey, twenty sites (41SR234, 41SR243, 41SR342, 41SR376-379, 41SR381, 41SR383-385, 41SR386, 41SR389, 41SR417–41SR419, 41SR425, 41SR458, 41SR460, and 41SR461) within the APE lack sufficient integrity of location, association, and materials (36CFR60.4) to be able to address important questions of prehistory or history and no further archeological investigations are warranted. Of the remaining three sites, 41SR242 and 41SR459 have undetermined eligibility and warrant avoidance or further investigation while 41SR462 is considered eligible for listing to the NRHP under Criterion D (as detailed below) and will require avoidance or mitigation.

2. Despite ROE constraints, SWCA on behalf of TxDOT has conducted a good faith effort within 276.4 of the 365.6 acres of the APE assessed in the attached report. TxDOT requests your concurrence to revise permit 7655 to the 276.4 acres examined and the remaining inaccessible

89.2 acres be examined under a separate Texas Antiquities Permit.

3. Since the survey was conducted under an individual THC Antiquities Permit, we are forwarding the draft for your review and processing in partial fulfillment of THC Antiquities Permit No. 7655. TxDOT finds the report acceptable as a draft and pending any final report review comments from your office, we request your concurrence that the report may proceed toward production and that it provides sufficient documentation that the proposed undertaking will have no effect on an archeological historic properties or State Archeological Landmarks.

In the event that unanticipated archeological deposits are encountered during construction, work in the immediate area will cease and TxDOT archeological staff will be contacted to initiate post-review discovery procedures under the provisions of the PA and the Memorandum of Understanding between TxDOT and the THC. Thank you for your consideration of this matter. If you have any questions regarding the survey report, please contact me at 416-2647.

Sincerely,

Christopher Ringstaff, Archeological Studies Program
Environmental Affairs Division

Cc w/attachment: Robin Gelston, TxDOT Pharr District Environmental Coordinator; Mike Chavez, ENV-PD; Christopher Ringstaff ENV-Arch TxDOT; ENV Arch Project File

cc w/o attachments: ECOS Scan

Concurrence By:

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

7/12/18
Date

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.

DRAFT REPORT
ACCEPTABLE
by
for Mark Wolfe
Executive Director, THC
Date 7/19/18
Track#

Texas Department of Transportation

Report for Archeological Survey (Initial Survey with Additional Survey Addendum) DRAFT

State Loop 195 between Farm to Market 755 and US 83, Starr County, Texas

Pharr District

Principal Investigator Christopher Ringstaff, Texas Antiquities Permit No. 7655

CSJ: 3632-01-001, 3632-01-002, and 3632-01-003

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

Abstract

Over the course of two field sessions in May 2016 and in May 2018, SWCA Environmental Consultants (SWCA) conducted an intensive cultural resources survey along the proposed State Loop (SL) 195 from Farm-to-Market (FM) 755 to 1.4 miles west of the intersection of U.S. Highway (US) 83 and Loma Blanca Road in Starr County, Texas. This work augmented previous investigations by Cox-McClain and Hicks and Company. This management summary addresses the cumulative work completed, resources identified, eligibility recommendations, and what remains to be completed.

SWCA's work was conducted in compliance with Section 106 of the National Historic Preservation Act (54 US Code 306108) and the Antiquities Code of Texas (9 Natural Resources Code 191). Christopher Ringstaff served as Principal Investigator under Texas Antiquities Permit No. 7655. TxDOT proposes construction of a new-location roadway from Farm-to-Market (FM) 755 to 1.4 miles west of the U.S. Highway (US) 83 and Loma Blanca Road intersection in Starr County, Texas. The new-location roadway, SL 195 (formerly US 83 Reliever Route), would be a four-lane divided rural highway located within a typical 350-foot-wide right-of-way (ROW). The Project is divided and undertaken under three separate CSJs: 3632-01-001, 3632-01-002, and 3632-01-003.

The Project's area of potential effects (APE) is defined as one 350-foot-wide, contiguous ROW (with occasional variance of up to 500 feet wide) extending for 17.4 miles, that consists of an existing ROW and a new ROW. According to typical design sections, the depth of impacts is estimated to be up to 40 feet below the current ground surface for the bridge supports and up to 6 feet in depth for the rest of the project. The entire SL 195 project covers a total area of approximately 824.5 acres.

Previous cultural resources investigations by Cox-McClain (2014) and Hicks and Company (2006) evaluated 458.9 acres of the overall project area. SWCA has conducted cultural resources investigations in 2016 and 2018 encompassing 276.4 acres of the overall project area. Cumulatively, 735.3 acres (89 percent) of the SL 195 project alignment has been evaluated while the remaining, non-access, parcels account for 89.2 acres (11 percent) of the total project. The cumulative efforts of these cultural resources investigations recorded 23 archeological sites (41SR234, 41SR242, 41SR243, 41SR342, 41SR376–379, 41SR381, 41SR383–386, 41SR389, 41SR417-419, 41SR425, and 41SR458–462) within the APE (Table 1).

These sites are predominantly prehistoric (n=19; 83 percent) campsites or lithic scatters, but four sites (17 percent) are multi-component containing prehistoric and historic early-middle twentieth century assemblages. Twenty sites (41SR234, 41SR243, 41SR342, 41SR376–379, 41SR381, 41SR383, 41SR384, 41SR385, 41SR386, 41SR389, 41SR417–41SR419, 41SR425, 41SR458, 41SR460, and 41SR461) are recommended as

not eligible for NRHP or SAL designation. Of the remaining three sites, 41SR242 and 41SR459 have undetermined eligibility and warrant avoidance or further investigation while 41SR462 is considered eligible for listing to the NRHP as detailed below.

Site 41SR242 is a multi-component site consisting of a Late Archaic camp site with a dense scatter of burned rock and lithic debris and a historic component of unknown age. Based on the initial survey which included SWCA's intensive shovel testing and TxDOTs backhoe trenching, the discovery of a high density debitage feature in apparent intact sediments supported additional work was warranted to determine NRHP and SAL eligibility. Site 41SR242 was tested in February and March 2017 with the results of the investigations forthcoming to the SHPO once the analysis is completed. Site 41SR459 is a prehistoric campsite with surficial and buried deposits consisting of a hearth field (i.e., multiple hearths) and lithic scatter. Due to the buried deposits and abundant earth oven features suggesting an overall high research value. As such, avoidance or additional work (i.e., test excavations) to determine the eligibility for designation as an SAL or for inclusion in the NRHP. Site 41SR462 is a buried multi-component site on Los Olmos Creek containing a dense prehistoric artifact assemblage dating to the Middle Archaic. The site has intact buried, possibly stratified deposits, with an assortment of cultural materials suggesting varied cultural activities suggesting an overall high research value and is considered eligible for listing to the NRHP and as an SAL based on the rarity of the site type, integrity, geomorphic setting, and overall lack of historic land-use modification which is almost unprecedented in the region.

In summary, 753.4 acres (89 percent) of the overall 17.4-mile long SL195 project encompassing 822.5 acres has been investigated for cultural resources. No access was available for the remaining 89.2 acres (11 percent) of the project area. These remaining areas are recommended for cultural resources investigations. Of the 23 archeological sites encountered during the cultural resources surveys of the project APE, nineteen sites are recommended as not eligible for both the NRHP and SAL designations; no further work is recommended on these sites. Based on the initial survey, site 41SR242 was tested in February and March 2017 with the results of the investigations forthcoming to the SHPO once the analysis is completed. Based on the results of the addendum survey, sites 41SR459 and 41SR462 are recommended as having undetermined NRHP and SAL eligibility; SWCA recommends further investigations to determine eligibility or avoidance. TxDOT concurs but has determined site 41SR462 to eligible for listing to the NRHP and as an SAL based on the rarity of the site type, integrity, geomorphic setting.

As reported, the majority of the survey was conducted by SWCA on behalf of TxDOT with supplimental investigations by TxDOT. TxDOT believes the survey represents a reasonable and good faith effort to locate and identify historic properties as per 36 Code of Federal Regulations (CFR) Part 800.4(b)(1), and cultural resources as per Subchapter A of Chapter 26 of the Texas Administrative Code, throughout the proposed project APE.

Project Identification

- **Date:** 7/17/2018
- **Date(s) of Survey:** 05/17/2016 to 05/23/2016, 12/14/2016, 2/14/2018, and 5/1/2018 to 5/11/2018
- **Archeological Survey Type:** Reconnaissance ☐ Intensive ☒
- **Report Version:** Draft ☒ Final ☐
- **Jurisdiction:** Federal ☒ State ☒
- **Texas Antiquities Permit Number:** 7655
- **District:** Pharr
- **County or Counties:** Starr
- **USGS Quadrangle(s):** Roma-Los Saenz West (2699-144), Roma-Los Saenz East (2698-233) and Rio Grande City North (2698-234)
- **Highway:** State Loop 195 between Farm to Market 755 and US 83
- **CSJ:** 3632-01-001, 3632-01-002, and 3632-01-003
- **Report Author(s):** Kirsten Atwood, Steve Carpenter , Christopher Shelton, Jessica Uimer, Ken Lawrence and Christopher Ringstaff
- **Principal Investigator:** Christopher Ringstaff

Texas Historical Commission Approval

Signature Date

Project Description

- **Project Type:** Construction of new roadway for State Loop 195.
- **Total Project Impact Acreage:** 824.5 acres
- **New Right of Way (ROW) Acreage:** 797 acres
- **Existing Acreage:** 27.5 **Easement Acreage:** none
- **Project Description and Impacts:** The proposed project would involve the construction of a new-location roadway from Farm-to-Market (FM) 755 to 1.4 miles west of the intersection of U.S. Highway (US) 83 and Loma Blanca Road (Figures 1, 2a, and 2b). The new-location roadway, State Loop 195 (formerly US 83 Reliever Route), would be a four-lane divided rural highway located within a typical 350-foot-wide ROW and include 12-foot travel lanes, a depressed median, 4-foot inside shoulders, 10-foot outside shoulders, and drainage ditches. The project crosses primarily undeveloped rural land ranging in elevation from approximately 212 to 276 feet above mean sea level.
- **Area of Potential Effects (APE):** The APE is defined as the new and existing 350-foot-wide ROW, with occasional variance of up to 500 feet wide, extending 17.4 miles for a total of approximately 822.5 acres. Existing ROW comprises roughly 24 acres and the remaining 797 acres is new ROW. According to typical design sections, the depth of impacts is estimated to be up to 40 feet below the current ground surface for the bridge supports and up to 6 feet in depth for the rest of the project.
- **Project Area Ownership:** Existing Texas Department of Transportation (TxDOT) ROW and proposed new TxDOT ROW currently on private property.

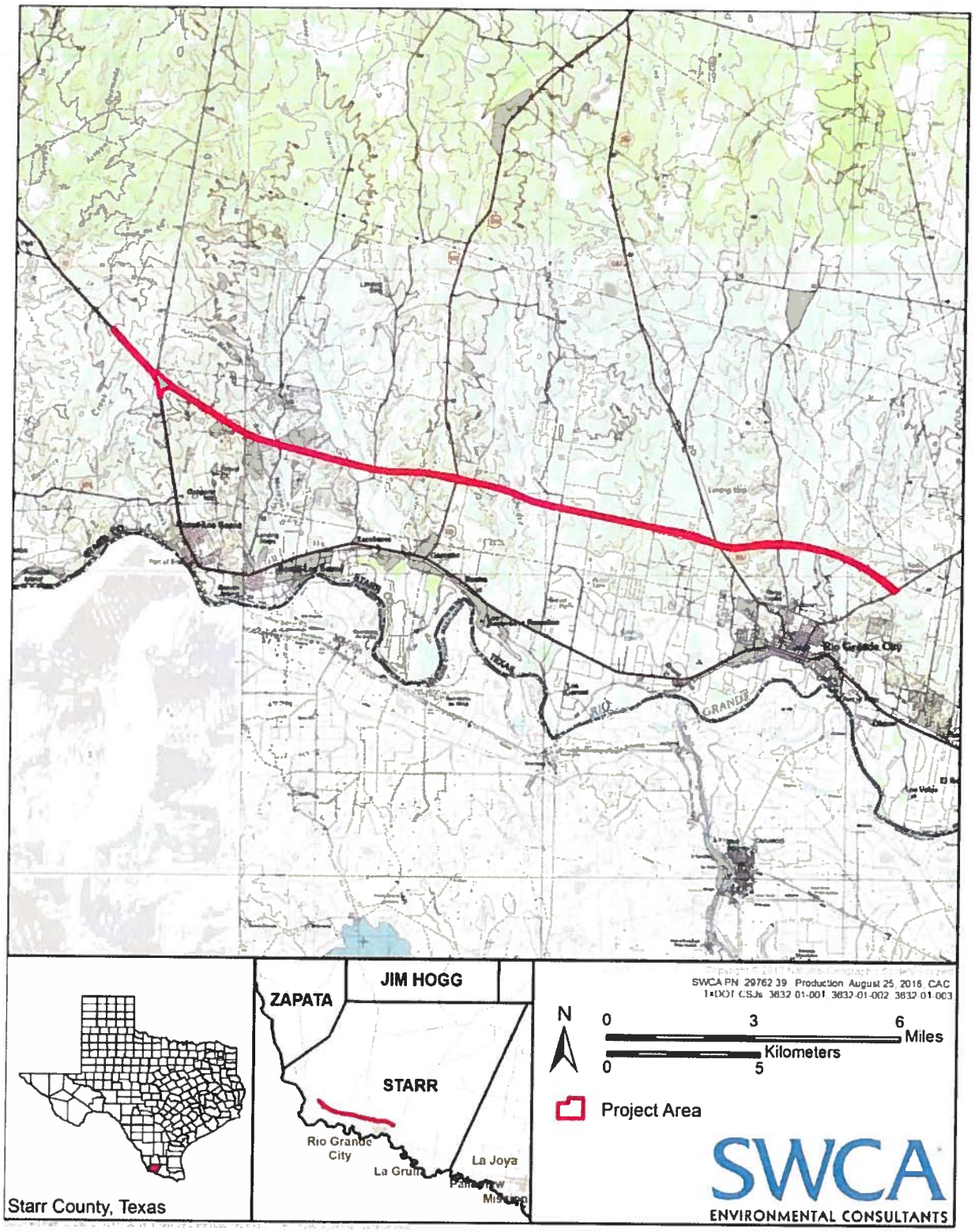

Figure 1. Project area location map.

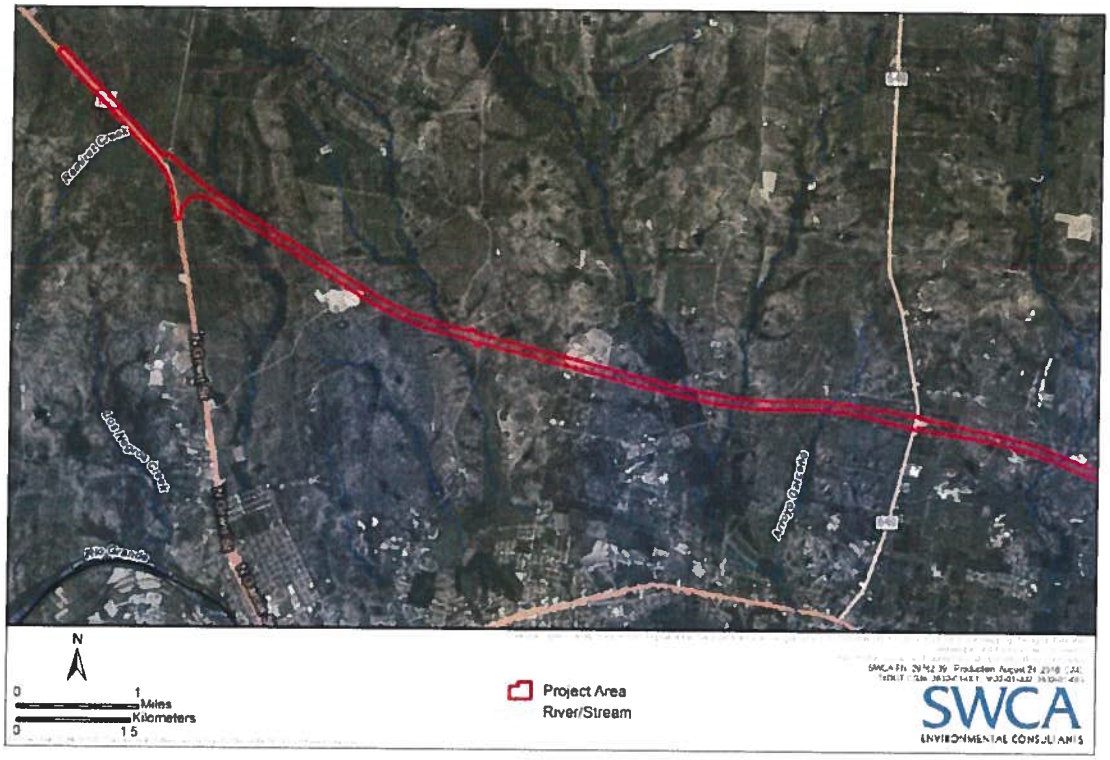

Figure 2a: Western project area.

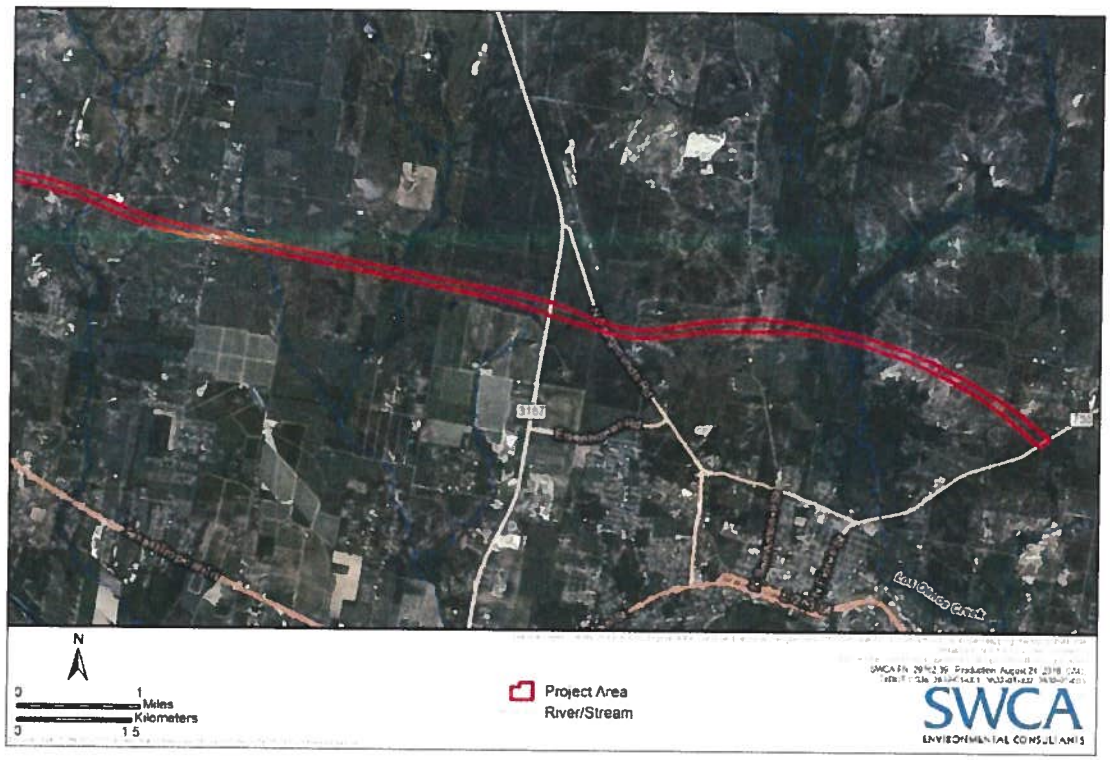

Figure 2b: Eastern project area.

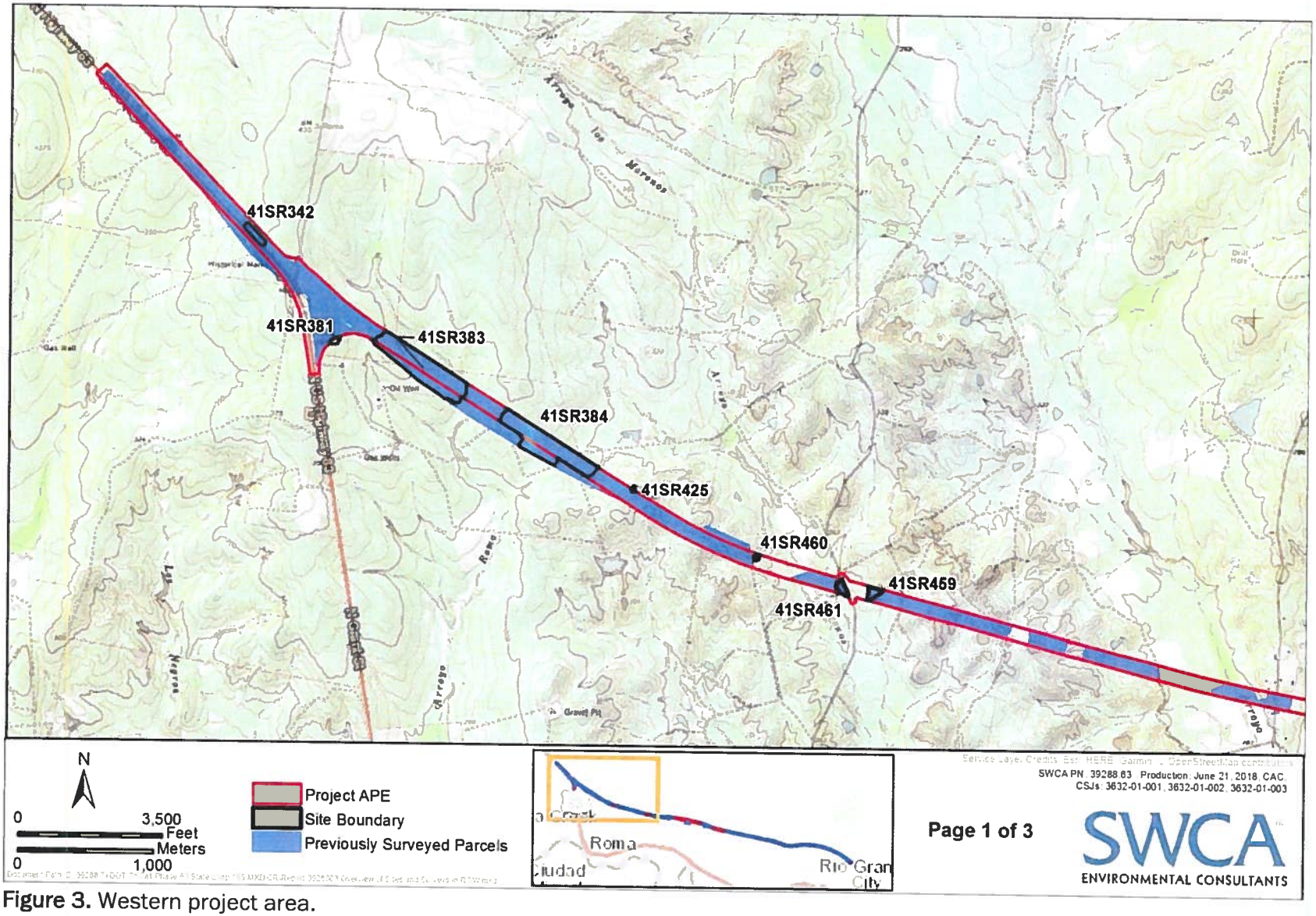

Figure 3. Western project area.

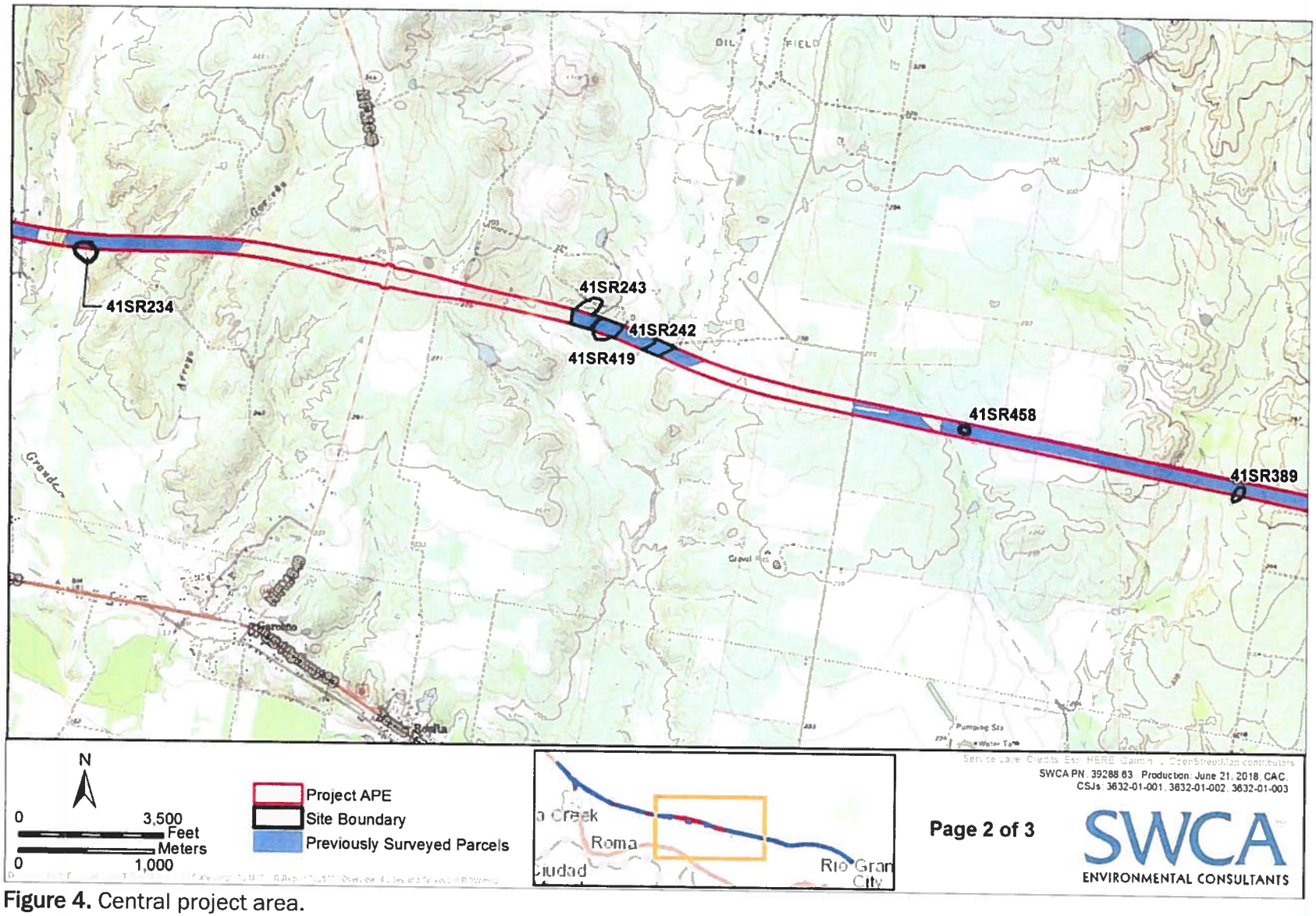

Figure 4. Central project area.

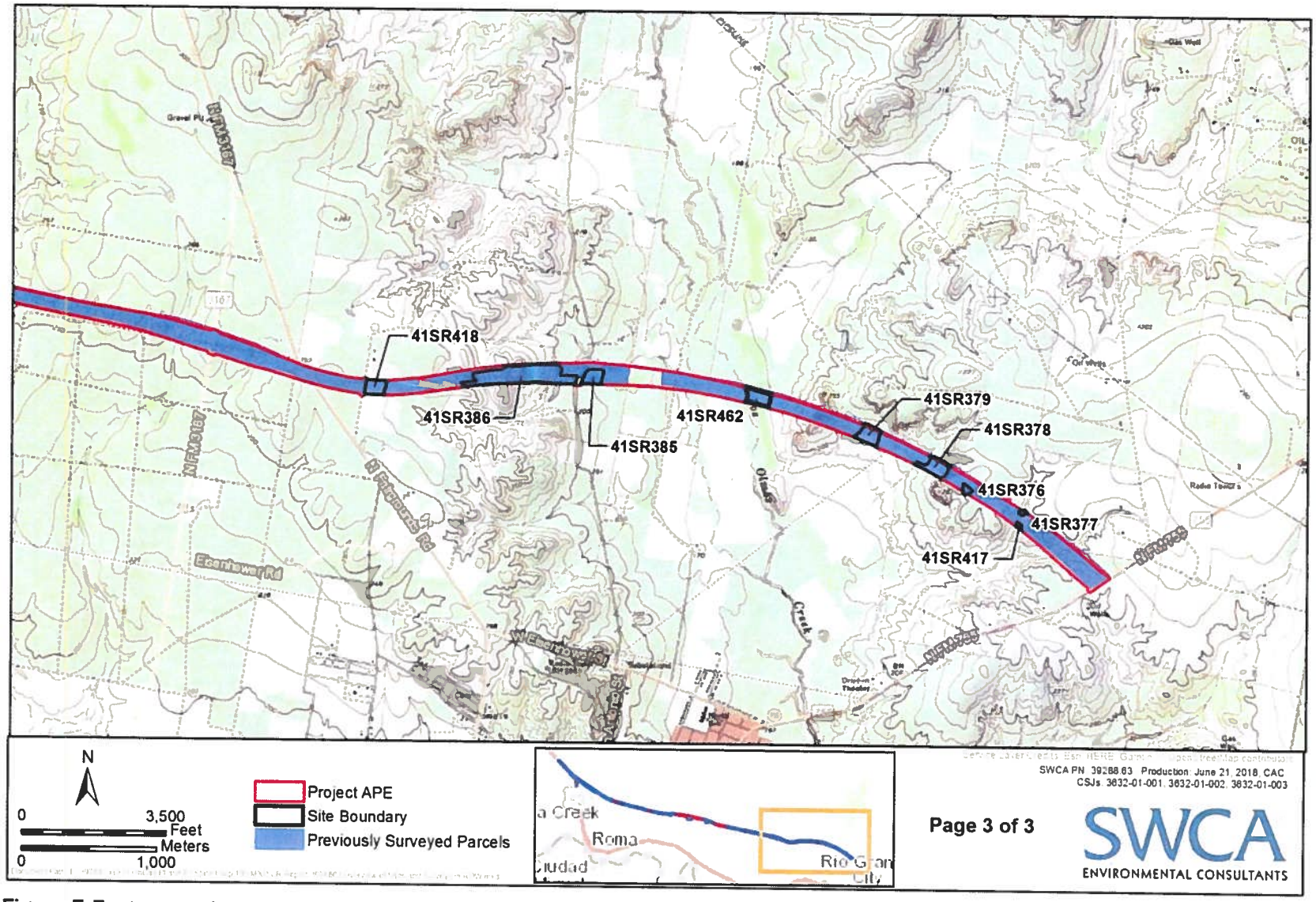

Figure 5 Eastern project area.

Table 1. Recorded Sites within the APE and recommendations.

Site No.	Site type	Description	NRHP and SAL
41SR234	Prehistoric	Lithic scatter	Not eligible
41SR242	Multi-component	Prehistoric campsite/Historic structure	**Undetermined**
41SR243	Multi-component	Prehistoric lithic scatter and historic foundation	Not eligible
41SR342	Prehistoric	Lithic scatter	Not eligible
41SR376	Multi-component	Lithic scatter/Historic artifact scatter	Not eligible
41SR377	Prehistoric	Lithic surface scatter	Not eligible
41SR378	Prehistoric	Lithic scatter	Not eligible
41SR379	Prehistoric	Quarry and lithic production site	Not eligible
41SR381	Prehistoric	Lithic scatter	Not eligible
41SR383	Prehistoric	Lithic scatter	Not eligible
41SR384	Prehistoric	Lithic scatter	**Not eligible**
41SR385	Prehistoric	Lithic scatter	Not eligible
41SR386	Prehistoric	Campsite	Not eligible
41SR389	Prehistoric	Campsite	Not eligible
41SR417	Prehistoric	Lithic scatter, and burned rock scatter.	Not eligible
41SR418	Prehistoric	Lithic scatter	Not eligible
41SR419	Prehistoric	Campsite	Not eligible
41SR425	Prehistoric	Lithic scatter	Not eligible
41SR458	Prehistoric	Lithic scatter	Not eligible
41SR459	Prehistoric	Campsite	**Undetermined**
41SR460	Prehistoric	Campsite	Not eligible
41SR461	Multi-component	Historic foundation and artifact scatter, Prehistoric lithic scatter	Not eligible
41SR462	Prehistoric	Multi-component campsite	**Eligible**

Texas Department of Transportation

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

RECEIVED
JAN 10 2019

January 10, 2019

RE: CSJ: 3632-01-001; SL 195, Rio Grande City – Roma Relief Route; Starr County, Pharr District; Antiquities Code of Texas Coordination and Section 106 of the National Historic Preservation Act Consultation

Patricia A. Mercado-Allinger, Division Director/State Archeologist
Archeology Division, Texas Historical Commission
P.O. Box 12276
Austin, Texas 78711

Dear Ms. Mercado-Allinger:

The above-referenced project is being considered for construction using funds from the Federal Highway Administration (FHWA) and would be built on state-owned right of way. Environmental studies are in the process of being conducted for this project. 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 the terms of the Programmatic Agreement (PA) Among the Federal Highway Administration (FHWA), Texas State Historic Preservation Office, Advisory Council on Historic Preservation, and the Texas Department of Transportation (TxDOT); and the Memorandum of Understanding (MOU) Between the Texas Historical Commission and the Texas Department of Transportation, we are continuing consultation with your office regarding this undertaking.

Undertaking Description

TxDOT proposes to construct a new location roadway, SL 195, from FM 3167 to FM 755 in Starr County, Texas. The roadway will extend for 17.4 miles. The roadway would comprise a four-lane divided highway. The proposed project will require a total of 797 acres of new right of way.

Area of Potential Effects

The project's area of potential effects (APE) comprises the following area:

- The project occurs on new location in Starr County, Texas and extends from FM 3167 to FM 755.
- The total project length is 17.4 miles.
- The proposed right way would typically be 350 feet wide.
- The latitude and longitude for the end points of the project are:

- Begin latitude: +26.412473 Begin longitude: -98.759022
- End latitude: +29.344653 End longitude: -98.744946

- The project comprises an area estimated at 821 acres, including 797 acres of proposed new right of way and 24 acres of existing right of way.
- The anticipated typical depth of impacts would be 3 feet, and impacts would extend to a maximum depth of 20 feet.

Previous Consultation and Identification Efforts

To date, TxDOT has completed identification efforts within 735.3 acres of the APE and identified 23 archeological sites. TxDOT has consulted with your office in previous correspondence dated July 19, 2018 and December 10, 2018. TxDOT is also transmitting an evaluation of a tested archeological site for inclusion in the National Register of Historic Places and formal designation as a State Antiquities Landmark for your review. This testing report is being sent on this date under separate cover.

Finding of Adverse Effect

As a result of these previous consultations and ongoing investigations, TxDOT has identified three archeological historic properties within the APE for this undertaking, including 41SR242, 41SR459, and 41SR462. These sites are in the proposed ROW for the undertaking and would be adversely affected by the construction of the undertaking.

Resolution of Adverse Effect

Consequently, TxDOT proposes to mitigate the adverse effects of the undertaking on these projects in part through data recovery investigations. If the proposed project is approved for construction, following completion of environmental studies and review, TxDOT will submit an application for a Texas Antiquities Permit for the data recovery investigations.

The sites contain important, basic data that will further our understanding of local prehistory. Sites with sufficient integrity to address important questions are relatively rare in the region. TxDOT thus proposes excavation and basic analyses sufficient to recover and document the artifacts and features at these sites. TxDOT proposes to limit the analysis and reporting to this basic documentation. The data recovery investigations will not be designed to evaluate high-level theories.

TxDOT also proposes to undertake additional activities as part of the mitigation to supplement the data recovery excavation. These supplementary activities would satisfy comments and feedback that TxDOT received through its tribal consultation program and its interaction among various audiences vested and interested in archeology/history. Through these programs, stakeholders have expressed interest in seeing more museum exhibits, online material, teacher/educational materials related to TxDOT's archeology program.

TxDOT has been offered the opportunity to partner with the Texas Memorial Museum. TxDOT would like to undertake this partnership as part of the mitigation for this undertaking. The partnership would entail the following contributions from TxDOT:

1) Contribute to the development of a comprehensive museum exhibit that integrates paleoindian archeology and STEM (science, technology, engineering and math) content in a cohesive way with the late pleistocene content at the museum. The exhibit may also talk about the science of archeology and TxDOT's role in cultural resources management. The exhibit may also have a traveling component.

2) Develop educational materials/activities that coincide with the museum exhibit.

3) Develop teacher workshops that train teachers on these archeology topics.

TxDOT's proposed focus on paleoindian archeology expands on previous outreach TxDOT conducted with various archeology partners. For the *First Texans: Paleoindian Archeology of Texas* poster, TxDOT collaborated with the THC and educational institutions to educate the public about paleoindian archeology and culture during Texas Archeology Month in 2017. Thus far, TxDOT has distributed more than 7,000 posters statewide. This museum exhibit and educational program would capitalize on the popularity of the poster and offer a synergistic approach to archeology awareness and education. It would do so in two ways. First, this content would offer an activity for audiences more willing to engage with this content. Second, it would train teachers on archeology content consistent with the Texas Essential Knowledge and Skills (TEKS), the state educational standard, making it more likely to be adopted and used.

The partnership would be a multi-year effort with teacher workshops planned for Fall 2019 during Texas Archeology Month and the exhibit launching in January 2020.

If you do not object that the proposed findings and recommendations are appropriate, please sign below to indicate your concurrence. Thank you for your consideration of this matter. If you have any questions or have need of further information regarding this project, please contact me at (512) 416-2631.

Sincerely,

Scott Pletka, Deputy Section Director
Cultural Resources Management Section
Environmental Affairs Division

Concurrence by: _____ Date: 1/10/19

Preserving America's Heritage

March 20, 2019

Mr. Chris Ringstaff
Archeologist
Texas Department of Transportation
125 East 11th St.
Austin, TX 78701

Ref: *Proposed SL I95 Roadway Construction Project*
Starr County, Texas
ACHPConnect Log Number: 013709

Dear Mr. Ringstaff:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and it is determined that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the Texas State Historic Preservation Officer (SHPO), and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA, and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with the notification of adverse effect. If you have any questions or require further assistance, please contact Sarah Stokely at (202) 517-0224 or by email at sstokely@achp.gov.

Sincerely,

LaShavio Johnson

LaShavio Johnson
Historic Preservation Technician
Office of Federal Agency Programs

From:	Emily Reed
To:	Claire Parra
Subject:	FW: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)
Date:	Monday, January 20, 2020 11:22:44 AM
Attachments:	Knisley_et.al Conservation Status of US Tiger Beetle-2014.pdf

---

From: Edward Paradise Jr <Edward.Paradise@txdot.gov>
Sent: Wednesday, September 4, 2019 11:42 AM
To: Emily Reed <emilyr@coxmclain.com>; Meghan P. Lind <meghanp@coxmclain.com>
Cc: Larry Cox <larry@coxmclain.com>; Robin Gelston <Robin.Gelston@txdot.gov>; Jubal Grubb <Jubal.Grubb@txdot.gov>
Subject: FW: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

FYI

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Friday, March 22, 2019 8:56 AM
To: Edward Paradise Jr
Cc: Meghan (meghanp@coxmclain.com); Emily Reed; Robin Gelston; RRobbins@rtg-texas.com; 'Larry@coxmclain.com'
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Edd,

I appreciate all the Pharr District's efforts to minimize impacts from the SL 195 project. To summarize, the District will survey for active nests if vegetation clearing occurs during the bird nesting season, BMP language for SGCN plants will be included on the EPIC, a biological monitor will be onsite to conduct clearance surveys for tortoises and other reptiles, and exclusion fencing will be installed to keep tortoises from entering construction areas. I appreciate that TxDOT will submit TXNDD records for rare species occurrences documented on areas where access has been granted. If TxDOT documents any additional rare species occurrences from future surveys once right-of-entry is gained, please submit those observations to the TXNDD as well.

Thank you for adding a note as we discussed to advise contractors of the potential occurrence of the following SGCN species, including Mexican burrowing toad, tiger beetle, Cazier's tiger beetle, and neojuvenile tiger beetle, within the project area and to avoid harming the species if encountered. If a future project triggers TPWD coordination for either the toad or tiger beetles, the district may consider proposing the following recommendations to minimize impacts. For toads, storing equipment inside exclusion fencing may help prevent toads from seeking shelter under construction equipment and materials. Contractors could also inspect equipment before use to ensure that toads have not moved underneath. Further, the BMPs implemented to minimize impacts to the sheep frog will help protect toads. For tiger beetles, measures to protect existing open, sandy areas that

they rely upon or creating new open areas may minimize impacts to these species. The Tiger beetle larvae live in vertical burrows in the soil and rest near the ground surface. Measures to limit driving to gravel or paved surfaces, as well as, storing vehicles and equipment to designated, graveled areas may minimize the number of burrow impacted as their larvae are susceptible to trampling from off-road vehicle use. Additional information on areas where the Cazier's and neojuvenile tiger beetles have been found in south Texas can be found in the journal article "Conservation status of United States tiger beetles" (see attached).

Thank you for submitting the following project for early coordination: SL 195 Rio Grande/Roma Relief Route (CSJ: 0326-01-056) in Starr County. TPWD appreciates TxDOT's commitment to implement the practices listed in the Tier I Site Assessment form submitted on November 5, 2018. Based on a review of the documentation, the avoidance and mitigation efforts described, and provided that 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 plants, fish, and wildlife.

According to §2.204(g) of the 2013 TxDOT-TPWD MOU, TxDOT agreed to provide TXNDD reporting forms for observations of tracked SGCN (which includes federal- and state-listed species) occurrences within TxDOT project areas. Please keep this mind when completing project due diligence tasks. For TXNDD submission guidelines, please visit the following link: http://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml

Sincerely,

Suzanne Walsh
Transportation Conservation Coordinator
(512) 389-4579

From: Suzanne Walsh
Sent: Tuesday, March 5, 2019 4:29 PM
To: 'Edward Paradise Jr' <Edward.Paradise@txdot.gov>
Cc: Meghan (meghanp@coxmclain.com) <meghanp@coxmclain.com>; Emily Reed <EmilyR@coxmclain.com>; Robin Gelston <Robin.Gelston@txdot.gov>; RRobbins@rtg-texas.com; 'Larry@coxmclain.com' <Larry@coxmclain.com>
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Thanks, Edd. I will review and let you know if I have any additional questions or comments.

Suzanne

From: Edward Paradise Jr <Edward.Paradise@txdot.gov>
Sent: Friday, March 1, 2019 11:54 AM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: Meghan (meghanp@coxmclain.com) <meghanp@coxmclain.com>; Emily Reed <EmilyR@coxmclain.com>; Robin Gelston <Robin.Gelston@txdot.gov>; RRobbins@rtg-texas.com; 'Larry@coxmclain.com' <Larry@coxmclain.com>

Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Hi Suzanne,

Please find attached my response to your review comments for this project. Let me know if you have any additional questions.

Thanks,

-Edd

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Thursday, February 28, 2019 1:54 PM
To: Edward Paradise Jr
Cc: Meghan (meghanp@coxmclain.com); Emily Reed; Robin Gelston; RRobbins@rtg-texas.com
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Edd,

I wanted to check on the SL 195 project. If you have any questions, please feel free to give me a call.

Thanks,

Suzanne

From: Suzanne Walsh
Sent: Monday, January 28, 2019 8:56 AM
To: Edward Paradise Jr <Edward.Paradise@txdot.gov>
Cc: Meghan (meghanp@coxmclain.com) <meghanp@coxmclain.com>; Emily Reed <EmilyR@coxmclain.com>; Robin Gelston <Robin.Gelston@txdot.gov>; RRobbins@rtg-texas.com
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Hi Edd,

I am checking to see if you had any questions about my comments.

Thanks,

Suzanne

From: Suzanne Walsh
Sent: Thursday, January 10, 2019 5:02 PM

To: 'Edward Paradise Jr' <Edward.Paradise@txdot.gov>
Cc: 'Meghan (meghanp@coxmclain.com)' <meghanp@coxmclain.com>; 'Emily Reed' <EmilyR@coxmclain.com>; 'Robin Gelston' <Robin.Gelston@txdot.gov>; 'RRobbins@rtg-texas.com' <RRobbins@rtg-texas.com>
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Hi Edd,

I appreciate the additional information that you provided me about the proposed project. Could the district include the following additional BMPs for the proposed project:

- Avoid vegetation clearing activities during the general bird nesting season, March through August, to minimize adverse impacts to birds.
- For SCGN plants that are found within the project area, but outside of the project footprint, mark plant locations with temporary barrier fencing and alert contractors to avoid plants within those areas. For SCGN plants found within the project footprint, and avoidance is not possible, please contact me to discuss options to seed bank or otherwise attempt to conserve populations prior to construction.
- Please submit TXNDD reporting forms for observations of tracked SCGN occurrences (which includes federal- and state-listed species) found within the project area. Data can be submitted using forms on TPWD website (see weblink: https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml) or by electronic format (i.e. excel spreadsheets, pictures, shapefiles with attributes). If you have any questions about submitting data, you may contact the TXNDD staff by email at: TexasNatural.DiversityDatabase@tpwd.texas.gov
- Additional Reptile BMPs as stated in the 2017 BMP PA
    - Due to increased activity (mating) of reptiles during the spring, construction activities like clearing or grading should attempt to be scheduled outside of the spring (April-May) season. Also, timing ground disturbing activities before October when reptiles become less active and may be using burrows in the project area is also encouraged.
    - When designing roads with curbs, consider using Type I or Type Ill curbs to provide a gentle slope to enable turtles and small animals to get out of roadways.
    - If Texas Tortoises are present in a project area they should be removed from the area. After removal of the tortoises, the area that will be disturbed during active construction and project specific locations should be fenced off to exclude tortoises and other reptiles. The exclusion fence should be constructed and maintained as follows: (a): The exclusion fence should be constructed with metal flashing or drift fence material; (b): Rolled erosion control mesh material should not be used; (c) The exclusion fence should be buried at least 6 inches deep and be at least 24 inches high; and (d): The exclusion fence should be maintained for the life of the project and only removed after the construction is completed and the disturbed site has been revegetated.

Thanks,

Suzanne

From: Edward Paradise Jr <Edward.Paradise@txdot.gov>
Sent: Monday, December 17, 2018 5:32 PM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc:
Subject: FW: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Suzanne,

Attached are the rare plant locations your requested. Please let us know if you need anything else.

Thanks,

Edd

From: Meghan P. Lind [mailto:meghanp@coxmclain.com]
Sent: Monday, December 17, 2018 5:27 PM
To: Edward Paradise Jr
Cc: Robert Robbins (RRobbins@rtg-texas.com) (RRobbins@rtg-texas.com); Emily Reed
Subject: FW: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Edd,

Attached is a zip file which contains the rare plant locations from our Rare Plant Survey Report. Please let us know if this is what TPWD is requesting or if they need additional information.

-Meghan

From: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Sent: Monday, December 17, 2018 3:55 PM
To: Edward Paradise Jr <Edward.Paradise@txdot.gov>
Cc: Robin Gelston <Robin.Gelston@txdot.gov>; Emily Reed <emilyr@coxmclain.com>; Meghan P. Lind <meghanp@coxmclain.com>; Larry Cox <larry@coxmclain.com>
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Edd,

Could I get the shapefiles of the plant locations?

Thanks,

Suzanne

From: Suzanne Walsh
Sent: Monday, December 17, 2018 9:54 AM
To: 'Edward Paradise Jr' <Edward.Paradise@txdot.gov>
Cc: Robin Gelston <Robin.Gelston@txdot.gov>; Emily Reed <EmilyR@coxmclain.com>; Meghan (meghanp@coxmclain.com) <meghanp@coxmclain.com>; 'Larry@coxmclain.com' <Larry@coxmclain.com>
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Thanks, Edd. I received the files and will review them.

Suzanne

From: Edward Paradise Jr <Edward.Paradise@txdot.gov>
Sent: Sunday, December 16, 2018 12:35 PM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: Robin Gelston <Robin.Gelston@txdot.gov>; Emily Reed <EmilyR@coxmclain.com>; Meghan (meghanp@coxmclain.com) <meghanp@coxmclain.com>; 'Larry@coxmclain.com' <Larry@coxmclain.com>
Subject: FW: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Suzanne,

Please find attached the requested KMZ files for the SL 195 project, one with a simple project footprint and the other with design details ("motif final"). Let me know if you need anything else.

Thanks,

Edd Paradise

From: Emily Reed [mailto:emilyr@coxmclain.com]
Sent: Saturday, December 15, 2018 1:55 PM
To: Edward Paradise Jr
Cc: Robin Gelston; Meghan P. Lind; Larry Cox
Subject: [WARNING: UNSCANNABLE EXTRACTION FAILED]RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Edd,

Please find two kmzs attached. One has a simple project footprint, and the other includes design

details ("motif final").

Thank you,

Emily

From: Edward Paradise Jr <Edward.Paradise@txdot.gov>
Sent: Friday, December 14, 2018 8:58 AM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: Robin Gelston <Robin.Gelston@txdot.gov>; Meghan P. Lind <meghanp@coxmclain.com>; Emily Reed <emilyr@coxmclain.com>
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Hi Suzanne,

I have requested a KMZ from consultants and I will send that to you as soon as I receive. I am also placing a copy of the Water Resources Technical Report that was sent to the USACE for coordination, which can give you more detailed information at each of the crossings that you may need. I will upload a copy of that report to Drop Box for you.

Thanks,

Edd Paradise

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Thursday, December 13, 2018 4:36 PM
To: Edward Paradise Jr
Cc: Robin Gelston; Meghan (meghanp@coxmclain.com); Emily Reed
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Edd,

Do you have a schematic or KMZ that I could review?

Could you tell me more about the expected impacts to the stream crossings?

Thanks,
Suzanne

From: Edward Paradise Jr <Edward.Paradise@txdot.gov>
Sent: Thursday, November 8, 2018 4:26 PM

To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: Robin Gelston <Robin.Gelston@txdot.gov>; Meghan (meghanp@coxmclain.com) <meghanp@coxmclain.com>; Emily Reed <EmilyR@coxmclain.com>
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Thanks

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Thursday, November 08, 2018 4:24 PM
To: Edward Paradise Jr
Cc: Robin Gelston; Meghan (meghanp@coxmclain.com); Emily Reed
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Edd,

I have received the coordination documents for the SL 195 project. I will let you know if I need additional information or have any questions.

Thank you,
Suzanne

Suzanne Walsh, Ph.D.
Transportation Conservation Coordinator
Wildlife Division – Wildlife Habitat Assessment Program
Texas Parks and Wildlife Department
4200 Smith School Road
Austin, TX 78744
Phone: (512) 389-4579

From: Edward Paradise Jr <Edward.Paradise@txdot.gov>
Sent: Tuesday, November 6, 2018 11:33 AM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Cc: Robin Gelston <Robin.Gelston@txdot.gov>; Meghan (meghanp@coxmclain.com) <meghanp@coxmclain.com>; Emily Reed <EmilyR@coxmclain.com>
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

Ms. Walsh,

I have up loaded the Tier I Site Assessment and Biological Evaluation Form along with the supporting attachments to Drop Box for your early coordination review of the SL 195 project located in Starr County (3632-01-001, -002, 003). The proposed project would entail the construction of a new-location 4-lane divided highway, connecting FM 755 to US 83, for a distance of approximately 17.41 miles. Please let me know if you should need any additional information in order to expedite your review of this project.

Thanks,

Edd Paradise

From: WHAB_TxDOT [mailto:WHAB_TxDOT@tpwd.texas.gov]
Sent: Monday, November 05, 2018 4:33 PM
To: Edward Paradise Jr; Robin Gelston; Emily Reed; Meghan (meghanp@coxmclain.com)
Cc: Suzanne Walsh
Subject: RE: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The TPWD Wildlife Habitat Assessment Program has received your request and has assigned it project ID # 40928. The Habitat Assessment Biologist who will complete your project review is copied on this email.

Thank you,

John Ney
Administrative Assistant
Texas Parks & Wildlife Department
Wildlife Diversity Program – Habitat Assessment Program
4200 Smith School Road
Austin, TX 78744
Office: (512) 389-4571

From: Edward Paradise Jr [mailto:Edward.Paradise@txdot.gov]
Sent: Monday, November 05, 2018 2:30 PM
To: WHAB_TxDOT <WHAB_TxDOT@tpwd.texas.gov>
Cc: Robin Gelston <Robin.Gelston@txdot.gov>; Meghan (meghanp@coxmclain.com) <meghanp@coxmclain.com>; Emily Reed <EmilyR@coxmclain.com>

Subject: Request for Early Coordination: SL 195 (3632-01-001, -002, -003)

I am submitting a copy of the Tier I Site Assessment and Biological Evaluation Form and I am requesting early coordination with TPWD for the SL 195 project (3632-01-001, -002, 003) in Starr County, Texas. Once a biologist has been assigned to review I will upload the additional supporting attachments to Drop Box and send them a notification for pick up.

Please let me know if you have any questions.

Thanks,

-Edd Paradise

TxDOT Response to TPWD SL 195 Project Review Comments

- Avoid vegetation clearing activities during the general bird nesting season, March through August, to minimize adverse impacts to birds.

The TxDOT Pharr District recognizes the bird nesting season here in extreme south Texas from Mid-February through October 1st. When vegetation clearing activities are unavoidable outside this time frame nesting surveys are conducted prior to construction and any found active nests are not disturbed until the young have fledged or the nest is no longer active.

- For SCGN plants that are found within the project area, but outside of the project footprint, mark plant locations with temporary barrier fencing and alert contractors to avoid plants within those areas. For SCGN plants found within the project footprint and avoidance is not possible, please contact me to discuss options to seed bank or otherwise attempt to conserve populations prior to construction.

Below is an example of the language that TxDOT used on the EPIC sheets for another project that is also located in Starr County with similar habitat types to this project. TxDOT coordinated with Sue Reilly and Anna Strong from TPWD on that project and similar language (modified to include plant species found on surveys for the SL 195 project) is applicable to this SL 195 project and will be included in the final EA commitments section, it will also be placed in the EPIC sheets for this project (see below):

For any found Species of Greatest Conservation Need (SGCN) plants, prostrate milkweed (Asclepias prostrata), Fitch's hedgehog cactus (Echinocereus reichenbachii var. *fitchii), Siler's huaco* (*Manfreda sileri*)*, and Runyon's Cory cactus (Coryphantha macromeris var runyonii), documented within the ROW during the plant surveys; TxDOT will avoid impacts to these plants where practicable. For plants outside of the footprint of the road, avoidance will include delineating the plant locations with orange construction fencing and at the time of the Pre-construction meeting contractors will be instructed to avoid impacting the plants within those areas. This instruction will include presenting photos of these plants to the contractor. These plant photos will also be displayed on the project bulletin board on site during the construction of the project.*

For plants directly within the footprint of the roadway itself, where avoidance is not possible, TxDOT will salvage the plants if present prior to construction. TxDOT will plan to minimize the distance that plants are moved. Ideally TxDOT will relocate plants within a restricted ROW activity area that is within similar habitat/soil types. If this is not possible for any of the species TPWD has indicated that they may have a property in mind for relocation. If any of the rare species are in seed prior to construction TxDOT would allow TPWD to collect seed.

- Please submit TXNDD reporting forms for observations of tracked SCGN occurrences (which includes federal- and state-listed species) found within the project area. Data can be submitted using forms on TPWD website (see weblink:

https://tpwd.texas.gov/huntwild/wild/wildlife_diversity/txndd/submit.phtml) or by electronic format (i.e. excel spreadsheets, pictures, shapefiles with attributes). If you have any questions about submitting data, you may contact the TXNDD staff by email at: TexasNatural.DiversityDatabase@tpwd.texas.gov

TxDOT and consultants are currently finalizing TXNDD reporting forms for rare species occurrences that have been observed and documented within the project area while gathering project information or conducting surveys.

- Additional Reptile BMPs as stated in the 2017 BMP PA
    - Due to increased activity (mating) of reptiles during the spring, construction activities like clearing or grading should attempt to be scheduled outside of the spring (April-May) season. Also, timing ground disturbing activities before October when reptiles become less active and may be using burrows in the project area is also encouraged.

      TxDOT will have on site biological monitors that will be permitted to relocate reptiles out of the way prior to construction (See section on Tortoise exclusion fencing below for more details).

    - When designing roads with curbs, consider using Type I or Type Ill curbs to provide a gentle slope to enable turtles and small animals to get out of roadways.

No curb and gutter is anticipated on this project.

- *If Texas Tortoises are present in a project area they should be removed from the area. After removal of the tortoises, the area that will be disturbed during active construction and project specific locations should be fenced off to exclude tortoises and other reptiles. The exclusion fence should be constructed and maintained as follows: (a): The exclusion fence should be constructed with metal flashing or drift fence material; (b): Rolled erosion control mesh material should not be used; (c) The exclusion fence should be buried at least 6 inches deep and be at least 24 inches high; and (d): The exclusion fence should be maintained for the life of the project and only removed after the construction is completed and the disturbed site has been revegetated.*

TxDOT will utilize Texas Tortoise exclusion fencing on this project similar to that which was used on the US 83 La Joya relief project in Hidalgo County. The exclusion fence is basically modified silt fencing that does not have any fabricated openings in it where by a tortoise, snake or other reptile might easily become entangled in, but that can be buried into the ground at a depth of approximately six inches and will be approximately twenty-four inches in height, to discourage digging under by tortoises. The fencing will be placed in areas of suitable habitat

where active construction will take place. Qualified biological monitors will be contracted for this project. The monitors will conduct clearance surveys for the tortoises and other reptiles before vegetation clearing occurs prior to construction. TxDOT coordinated with TPWD biologist Russel Hooten who approved the use of the modified fencing for excluding tortoises. The fences will be routinely inspected and maintained as necessary. Any found Texas tortoises and/or Texas horned lizards will be relocated onto nearby refuge lands (both of these species have been documented within the project area during field surveys). TxDOT will make arrangements with USFWS to conduct the relocations onto nearby refuge lands prior to construction (See photos from the La Joya project below).

Tortoise exclusion fencing set up along the La Joya Relief Route project.

View of Texas Tortoise (above) and a Texas horned lizard (below) that were captured during the search surveys and relocated off of the construction site onto USFWS lands as part of the BMPs employed for reptiles on the US 83 construction project.

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Texas Coastal Ecological Services Field Office
4444 Corona Drive Suite 215,
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Main: (361) 994-9005 Fax: (361) 994-8262

In Reply Refer to:
FWS/R2/ES/02ETCC00-2019-F-2064

July 17, 2019

Mr. Carlos Swonke
Texas Department of Transportation
125 East 11th Street
Austin, TX 78701-2483

RE: CSJ 3632-01-001, 3632-01-002, 3632-01-003

Dear Mr. Swonke:

This document transmits the U.S. Fish and Wildlife Service's (Service) Final Biological Opinion (BO) based on our review of the proposed Texas Department of Transportation's (TxDOT) proposed construction of State Loop (SL) 195, a 17.24-mile new-location 4-lane divided highway from Farm-to-Market (FM) Road 755 to US Highway 83 (US 83) one mile west of the intersection with Loma Blanca Road (proposed project). The proposed project is located entirely within Starr County, Texas.

Section 7 of the Act requires that all Federal agencies consult with the Service to ensure that the actions authorized, funded, or carried out by such agencies do not jeopardize the continued existence of any threatened or endangered species or adversely modify or destroy designated critical habitat of such species. The Federal Highway Administration (FHWA) assigned responsibility for compliance with the National Environmental Policy Act (NEPA) and all federal resource agency consultations, including section 7 formal consultations, to TxDOT in a Memorandum of Understanding (MOU) dated December 16, 2014 (23 U.S.C. 327). TxDOT requested formal consultation for the proposed action in a letter dated October 26, 2018, with an attached Biological Assessment (BA): State Loop (SL) 195 from Farm-to-Market (FM) Road 755 to US Highway (US) 83, One Mile Northwest of Loma Blanca Intersection, Starr County, Texas.

The purpose of the proposed action is to increase mobility by providing an additional route for traffic traveling through southern Starr County. The SL 195 project is needed to improve mobility within the cities of Rio Grande City and Roma along the existing US 83, and to improve safety by providing a divided roadway. It is anticipated that construction of the proposed SL 195 project may adversely affect the Zapata bladderpod (*Physaria (=Lesquerella)thamnophila*) listed as endangered pursuant to the Endangered Species Act of 1973, as amended (Act)(16 U.S.C. 1531 et seq.). This consultation is pursuant to section 7 of the Act.

Other species listed as threatened or endangered pursuant to the Act in Starr County have not been detected within the proposed action area. Habitat for Ashy dogweed (*Thymophylla tephroleuca*), Interior Least Tern (*Sterna antillarum*), Piping Plover (*Charadrius melodus*), Red Knot (*Calidris canutus rufa*), Gulf Coast jaguarondi (*Herpailurus* (=*Felis*) *yagouaroundi cacomitli*), and ocelot (*Leopardus* (=*Felis*) *pardalis*) does not occur within the action area. Therefore, these species will not be discussed further in this biological opinion. TxDOT has determined that the effects of the proposed action may affect, but are not likely to adversely affect star cactus (*Astrophytum asterias*) and Walker's manioc (*Manihot walkerae*) and no individuals of either species have been discovered during multiple surveys of existing and proposed right-of-way (ROW) where access was granted. The Service concurs with the not likely to adversely affect determination due to negative species surveys, avoidance and minimization measures included in the biological assessment, and the restricted linear nature of the proposed activity (Please see Appendix A and sections 2.3 and 6.1 in the BA).

The findings and recommendations in this consultation are based on: (1) Revised BA: SL 195 from FM Road 755 to US 83, One Mile Northwest of Loma Blanca Intersection, Starr County, Texas, dated June, 2019, (2) TxDOT Zapata bladderpod relocation plan for SL 195, 2019, (3) discussions with TxDOT staff; and, (4) other sources of information available to the Service.

CONSULTATION HISTORY

October 26, 2018 – TxDOT requested formal consultation for the construction of SL 195 and transmitted the BA.

February 12, 2019- A conference call between the Service and TxDOT representatives was held to discuss conservation measures for Zapata bladderpod.

March 8, 2019- the Service provided questions on the SL 195 BA and requested that a relocation plan be developed for Zapata bladderpod.

April 22, 2019- TxDOT transmitted response to comments on the SL 195 BA and the Zapata bladderpod relocation plan for SL 195 to the Service.

June 20, 2019- TxDOT transmitted the revised BA to the Service.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

Project Description

For additional information on the proposed action please see the BA.

TxDOT proposes to construct a 17.24-mile new-location, 4-lane divided highway from FM 755 to US 83 one mile west of the intersection with Loma Blanca Road in Starr County, Texas (Please see Figure 1 in the BA). The project will be constructed within a new ROW corridor between 300 and 450 feet wide. The proposed project is located north of the US 83 corridor and traverses undeveloped land in rural portions of southern Starr County, Texas. The majority of the project is located outside of city boundaries; however, a portion of the new SL 195 roadway alignment occurs within the City of Roma, and a portion of the alignment occurs within the colonia of North Escobares (Please see Figure 2g–j in the BA).

The new SL 195 roadway would include two 12-foot travel lanes in each direction and a grassy median and includes left-turn lanes at the at-grade intersections with existing roadways and at the turn-around locations provided along the alignment. The roadway would have 4-foot inside shoulders and 10-foot outside shoulders and there would be an overpass approach at the intersection with US 83/Loma Blanca Road. The overpass approach at US 83/Loma Blanca Road would have two 12-foot travel lanes in each direction with 17-foot inside shoulders and 10-foot outside shoulders. The typical section for SL 195 increases to 450 feet at future overpass locations to allow for main lanes to go over the intersections. The proposed project would also include improvements to FM 3167 and FM 649. At these locations, the cross streets would be widened to 72 feet to provide a travel lane and left-turn lane in each direction, for a length of 285 feet within the intersection. The proposed design includes the construction of 13 bridge structures over 12 ephemeral stream crossings with mapped flood zones that intersect the proposed roadway and one drainage location without a mapped flood zone.

The proposed construction of the SL 195 project would include actions and equipment commonly needed to construct a new-location divided highway and connect intersection improvements. Project activities include vegetation clearing and grubbing, surface milling, grading, and excavation. Vegetation would either be cleared and grubbed by hand or with mechanized equipment, such as a brush hog, skid steer, or bulldozer. As a milling machine passes over an area, it removes surface soils and leaves behind a pile of cuttings including small rocks and dust. Cuttings are then piled up by other machines and loaded into dump trucks for removal or reuse. Excavation equipment such as trackhoes and trenchers are typically used in smaller areas as opposed to milling and grading equipment. The depth of excavation is expected

to vary from 2–20 feet throughout the SL 195 project area and would be determined at a later stage in the design phase. The project would include the construction of 13 bridges at 12 stream crossings and one drainage. Drilling for the installation of support piers for these bridge structures involves drilling shafts ranging from 3 to 5 feet in diameter with depths typically between 19 and 40 feet. The proposed project would also include the placement of temporary and/or permanent best management practices (BMPs) for preventing erosion and sediment movement outside of the project area. With the exception of areas with endangered plants, all disturbed areas would be re-vegetated according to TxDOT's standard practices for rural areas using a regional seed mix. Areas where endangered plants are identified would not be re-seeded and natural vegetation would be allowed to remain and/or be recruited. To the extent practicable, all revegetation efforts will be in compliance with Executive Order 13112 on Invasive Species and the Executive Memorandum on Beneficial Landscaping.

Construction access and staging areas will be located within pre-approved areas outside of known rare plant populations, will not require grading, and will be protected with standard soil erosion and sediment BMPs. Vegetation removal at staging areas will be minimized to the extent practicable and access to each staging location shall be established at construction entrances and exits.

Based on current TxDOT design the proposed project would require approximately 667 acres of new ROW along with approximately 36 acres of existing TxDOT ROW for a total project area of 703 acres. Construction is scheduled to begin in late 2021 and is expected to last three years.

Two populations of the endangered Zapata bladderpod have been identified through survey within the proposed SL 195 alignment. One population (identified in 2006) caused TxDOT to realign the proposed roadway, which resulted in the complete avoidance of this population. Per TxDOT, information regarding the physical location of this population could not be located for inclusion in the BA. The second population (identified by survey in 2017) resulted in a second alignment shift to avoid destruction of this population (Please see Figure 5 and Appendix A in the BA). The current alignment shows this population between the proposed Eastbound and Westbound lanes of SL 195; however, due to the episodic emergence of this species and a single year of survey data, the outer boundaries of this population were estimated in the field using the outer edge of the population that was observed in 2017.

Conservation Measures

TxDOT completed multiple surveys for listed species within the existing and new ROW where right-of-entry was granted. Field surveys were conducted within the proposed project area in 2006, May 2015, October 2015, April 2017, and August 2017. One Zapata bladderpod population of approximately 600 individuals was discovered in 2017 and occurs within the proposed SL ROW project limits (Please see Figure 5 in the BA). No additional listed species

were found during these surveys. Approximately 171 acres of new ROW has not been surveyed due to lack of right-of-entry. The entirety of this acreage is potentially suitable habitat for listed plant species including the Zapata bladderpod based on soils and aerial photos.

TxDOT has proposed to implement the following conservation measures:

1. Approximately 171 acres were not surveyed due to a lack of right-of-entry for private properties. Once the new right-of-way is purchased for the project, TxDOT commits to surveying the remaining 171 acres for federally listed plants. Surveys will be conducted during the flowering period immediately prior to construction or during the flowering period immediately following right-of-entry, whichever occurs first. TxDOT will consult with the Service if any federally endangered plant species, including Walker's manioc and/or star cactus, are found in subsequent plant surveys that will be conducted on properties after TxDOT obtains right-of-entry.

2. If federally listed plants are identified within the remaining acreage, TxDOT will attempt to realign the limits of construction to avoid or minimize impacts to new plant populations, as practicable within the proposed right-of-way. Additionally, GPS data will be collected for any new federally listed plants identified during future surveys and reported to TPWD using a Texas Natural Diversity Database (TxNDD) reporting form. New locations of federally listed plant species will also be provided to the Service State Botanist and to the Service Texas Coastal Ecological Services Field Office.

3. During construction, orange barrier fencing will be installed to prevent construction equipment from impacting the 2017 mapped population and watering for dust control will occur once per day within 120 feet of this location. If any additional endangered plant populations are identified during future survey efforts, orange barrier fencing will be installed to protect or minimize construction impacts to new populations, as practicable. TxDOT will provide a minimum distance of 10-foot buffer between the orange barrier fencing used during construction and the plant population to protect plants, provided this distance is feasible. There may be instances in which this may not be feasible, for example when the plant population falls within 10 feet of the roadway footprint. Dust control watering will occur around any newly identified populations. Biological monitors will be at the construction sites during the placement of BMPs for endangered plants.

4. After construction, in order to protect endangered plants and retain their habitat, a buffer zone of up to 50 feet will be created around a restricted right-of-way activity zone/restricted mow zone for all known populations of federally listed plants. For the Zapata bladderpod population, mowing will be restricted to between June and January, thus avoiding what is considered to be the active growing season for this species. Additionally, a six-inch mowing height will be required for these areas to avoid damaging any late-flowering or early growing plants. If additional species are identified during future surveys, the mowing restriction will be adapted to the species-specific growing period. Appropriate signage will be installed to alert

maintenance staff to the mowing restrictions or access restrictions at the site. No herbicides will be utilized within the restricted activity/mow zone.

5. TxDOT will avoid impacts to federally listed species to the extent practicable. However, should an endangered plant be affected by the project, TxDOT will relocate affected individuals to an area within a protected portion of the right-of-way and/or will conduct a plant rescue and have rescued individuals transported to a suitable plant center, as practicable. This work will be conducted with the assistance of the Service to ensure all translocation requirements are met, such as necessary handling permits. A relocation plan for Zapata bladderpod was provided as Appendix B to the BA.

6. For the Project Specific Locations (PSLs) located outside the proposed right-of-way, TxDOT will include specific working stipulations in the construction plans to survey for endangered species. If listed plants are identified at PSL locations, they will be protected or an alternate PSL will be utilized. The District Environmental Quality Control Coordinator will review the selection of PSLs.

7. Natural vegetation communities will be allowed to re-establish in areas that are disturbed during construction but not converted to pavement, thus potentially retaining habitat for the endangered plants to re-establish in the right-of-way. No seed mixes will be used in areas of right-of-way where any endangered plants are found, so that natural vegetation would be given the opportunity to recolonize the area.

8. In accordance with the Executive Memorandum on Environmentally and Economically Beneficial Landscaping Practices and Executive Order 13112 on Invasive Species, landscaping will be limited to re-seeding with TxDOT-approved regional seed mix and replanting the right-of-way with native plant species where practicable in areas that are not known to contain endangered plants.

9. Standard TxDOT stormwater BMPs to protect the surface soil from erosion during both the construction and operation phases of the roadway will be utilized.

Action Area

The action area for the proposed project is bounded by the existing and proposed ROWs, and the properties adjacent to the existing and proposed ROWs. The action area varies depending on whether suitable habitat for listed plant species was determined to be present during field investigations by TxDOT. The action area includes the project area and a 120-foot buffer extending from the boundary of the project area for the majority of the proposed project. The action area is restricted to the existing or proposed ROW within certain sections where no suitable habitat for listed plant species was identified (Please see Figures 6a-c in the BA). The 120-foot buffer was used to define the action area based on a review of literature pertaining to the effects of dust accumulation on vegetation along roadways and the distance from travel lanes at which the dust significantly dissipated (more than 83 percent reduction; Bloser and Silsbee

2003). This distance also accounts for the area that erosion, sedimentation, or induced development effects would be reasonably certain to occur as a result of the proposed project.

To account for the indirect effects of induced development resulting from the construction of a new-location roadway, the buffer distance at proposed intersections with FM 3167, FM 649, and Loma Blanca Road is extended to 300 feet. The intersections are the area's most likely to experience development in association with a new connecting roadway.

The action area for the proposed project totals 1,254.6 acres (approximately 1.96 square miles) in western Starr County (Please see Figures 6a-c in the BA).

STATUS OF THE SPECIES AND CRITICAL HABITAT

Zapata bladderpod

Species/Critical Habitat Description

The Zapata bladderpod was federally listed as endangered on November 22, 1999, with 4 populations being located and described in Starr and Zapata Counties in South Texas (USFWS 1999).

Critical habitat was designated on December 22, 2000 (USFWS 2000). Eight critical habitat units were designated in Starr County. Seven of the units encompass 5,158 acres of the Lower Rio Grande Valley NWR. Refuge tracts designated as critical habitat include Cuellar, Chapeno, Arroyo Morteros, Las Ruinas, Arroyo Ramirez, Los Negros Creek, and La Puerta Tract. Only two critical habitat units of the seven contain Zapata bladderpod plants. The remaining five refuge units contain the same vegetation and soil qualities as the known population sites and are essential for the conservation of the species for potential reintroductions. The eighth unit consists of 1.36 acres on private property. Critical habitat was not designated at the occupied sites in Zapata County due to the low numbers of plants present onsite and the associated low potential for continued survival or sustainability at these sites (USFWS 2004).

On January 31st, 2019 the Service proposed a draft amendment to the recovery plan for Zapata bladderpod (USFWS 2019). The draft amendment included amended downlisting recovery criteria and new delisting recovery criteria for Zapata bladderpod.

Description

Zapata bladderpod is a pubescent, silvery-green, herbaceous perennial of the *Brassicacea* family, with sprawling stems 17 to 34 inches long. Basal leaves are narrowly elliptical to oblanceolate and acute, 1.5 to 4.8 inches long, and 0.3 to 0.6 inch wide, with entirely or slightly-toothed margins. Stems leaves are linear to narrowly elliptical and acute, 1 to 1.5 inches long and 0.1 to 0.3 wide, and have entire or slightly toothed margins (USFWS 2004).

Life History

Zapata bladderpod produces bright yellow flowers and flowering occurs mainly from February to April, with a peak in March, although flowering has occasionally been observed as late as October. Most fruiting has been observed in March and April (USFWS 2015). Plants will bloom throughout most of the year with adequate temperature and rainfall. Fruits are round, 0.2 to 0.8 inch in diameter, and are on short, downward curving pedicels (Poole 1989).

Zapata bladderpod is endemic to South Texas, where it occupies cenizo and/or guajillo (*Acacia berlandieri*) shrublands. All known populations have yellowish, calcareous, highly erodable soil derived from sandstone; rapid sheet and gully erosion are evident at all study sites. Soils at these sites are shallow, well-drained, sandy loams of the Zapata, Maverick, Catarina, and Copita series (NRCS 2009). Although the 2004 recovery plan states that Zapata bladderpod populations also occur on Jimenez-Quemado soils underlain by caliche (precipitated calcium carbonate), Price et al. (2012) determined that this is incorrect. Gypsum (hydrated calcium sulfate) crystals occur at the soil surface of most Zapata bladderpod sites; Catarina and Maverick soils contain up to 15 percent gypsum, and Copita soils have about 2 percent gypsum (NRCS 2009). The five year review concluded that although Zapata bladderpod was clearly associated with gypseous soils, it may tolerate rather than require gypsum (USFWS 2015).

Many Zapata bladderpod populations are also immediately down-slope from fossil oyster shell strata. The porous shell strata perched above impermeable sandstone may create seepage zones that concentrate gypsum through evaporation from the soil surface.

Zapata bladderpod may occur within areas of sparse vegetation or under canopy of associated shrub species. The shrub species may serve as nurse plants for Zapata bladderpod, potentially reducing the amount of sunlight on the soil surface and helping to maintain moisture in the root area. Adjacent shrubs also provide protection from soil erosion and may serve as a deterrent to browsing animals. Although the recovery plan (USFWS 2004) noted associated plants include mesquite, granjeno, Spanish dagger (*Yucca treculeana*), lotebush, guayacan (*Guaiacum angustifolium*), cenizo (*Leucophyllum frutescens*), and blackbrush (*Acacia ridgula*), more recent data including Fowler et al. (2011) and Price et al. (2012) suggest that Zapata bladderpod may have a complex relationship with shrub canopies. Shrub canopies may facilitate Zapata bladderpod seed germination, but once established, competition with shrubs for resources may outweigh facilitation (USFWS 2015).

Population Dynamics

Zapata bladderpod is known to be opportunistic, with the density of Zapata bladderpod plants and size of populations fluctuating with temperature levels and amount of rainfall. Zapata bladderpod is a perennial plant that sprouts above ground levels and produces stems more readily during periods of favorable weather. It can respond dramatically to rainfall events and increase from small, barely-detectable, above-ground plants, to thousands of plants (USFWS 2004). Surveys of known populations following extended periods of hot, dry weather have detected few or no Zapata bladderpod plants. Leafless caudices are likely able to remain in a dormant state for

extended periods, during which they are very difficult to detect. Rainfall in this hot, semi-arid region of Texas occurs most reliably from September through November. Seed germination and the emergence of basal rosettes from dormant caudices probably occur in the fall and early winter in response to rain, cooler weather, and shorter day lengths (USFWS 2015).

Status and Distribution

When the species was listed in 1999, four populations were known to exist in Starr and Zapata Counties (USFWS 1999) along approximately 2 miles of the Rio Grande River. Since the listing, additional populations have been documented. Zapata bladderpod has a total of ten occurrences within Starr and Zapata Counties, Texas per the five year review. However, the status of two populations are currently unknown leaving eight extant populations. Four of the eight populations have had maximum population counts of over 2,000 individuals (USFWS 2015). Four populations are noted as protected in the five year review, however only two of the protected populations had counts of over 2,000 individuals. All of the populations noted as protected within the five year review occur within Starr County. Two additional populations have been found in proposed new ROW along TxDOT roadways in Starr County (US 83 and proposed SL 195).

The predominance of private lands in South Texas limits access for surveys, therefore the species range may be more extensive than what is currently known. The size of populations fluctuates depending on rainfall and weather cycles making them more difficult to locate (USFWS 2004).

Reasons for Listing/Threats to Survival

Primary threats to the survival of Zapata bladderpod have been identified as habitat modification and destruction from increased road and highway construction, and associated urban development, increased oil and gas exploration and development, alteration and conversion of native plant communities to improved pastures, overgrazing, and vulnerability due to low population numbers (USFWS 1999, 2004). Urban development and wind turbine installation has been increasing in Starr County. The five year review concluded that competition from invasive grasses was not a high level threat in undisturbed Zapata bladderpod habitat as soils containing gypsum may limit invasion of non-native grasses. Zapata bladderpod soils are extremely prone to erosion and rootplowing and overgrazing can increase soil erosion in these areas (USFWS 2015). Genetic drift, loss of genetic diversity, and inbreeding depression are also potential threats to small isolated Zapata bladderpod populations. As the full distribution and pollination mechanism for this species are still largely unknown, it is not clear how far populations would need to be apart to be considered isolated (USFWS 2015).

Recovery Efforts

Populations on LRGV NWR tracts are under the jurisdiction of the Service and studies of these existing populations both by the Service and collaborators have contributed greatly to the understanding of the species including population size and associated vegetation (Sternberg 2005), population size and plant associations (Fowler et al. 2011 and Price et al. 2012), and characterization of geology at study sites (Price et al. 2012).

TxDOT has incorporated and implemented management plans for areas of US 83 ROW that contain Zapata bladderpod in the ROW. In accordance with TxDOT's Resource Protection Signing System (TxDOT 1998), the Pharr District has erected signs along these sections of roadway to protect endangered plants that occur in the ROW. Known sites are periodically monitored by TxDOT, the Service, LRGV NWR and/or TPWD, and coordinated with TPWD to prepare and implement detailed maintenance plans for signed areas. No mowing is allowed between January 1st and May 31st. Mowing the entire width is allowed outside of the window for plant survival. Herbicide application is only allowed at the signs but not in between them. TxDOT provides information regarding the location of the endangered plants to its contractors to aid in planning construction and maintenance activities occurring in TxDOT ROW.

ENVIRONMENTAL BASELINE

Status of the Species within the Action Area

Plant surveys were conducted within the proposed SL 195 alignment where right-of-entry had been granted in 2006, spring and fall of 2015, and spring and fall of 2017. In April/May 2006, a population of Zapata bladderpod was identified and delineated within the proposed right-of-way. Changes have since occurred with respect to the project design in order to avoid the 2006 identified population; therefore, this 2006 population is located outside the current SL 195 alignment. No plants were identified during the 2015 survey effort. One population of Zapata bladderpod was identified during the spring and fall 2017 survey. This single population had approximately 600 individuals within the surveyed area. Individuals were both flowering and non-flowering. The majority were not flowering; for non-flowering individuals, only basal rosettes were used for identification. This population was located on the western extent of the action area, entirely within the proposed right-of-way. The 2017 population was identified on a largely undisturbed tract of land with minimal to occasional livestock grazing activities consistent with the south Texas shrubland vegetation type. This population was observed on soils mapped as Copita fine sandy loam. As these plants are not within existing ROW they are not currently managed by TxDOT.

The SL 195 project lies approximately 2.8 miles north of the Las Ruinas LRGV NWR tract and 3.24 miles northwest of the La Puerta LRGV NWR tract, which are the two closest critical habitat units to the proposed roadway (Please see Figure 7 in the BA). No designated critical habitat units occur within the SL 195 action area and no impact to Zapata bladderpod critical habitat would occur as a result of the proposed project.

Factors Affecting Species Environment within the Action Area

Habitat Loss

The proposed project is located in the South Texas Plains vegetation region of Texas. Historically the South Texas plains were covered by open grasslands or savannahs along the coastal areas and brushy chaparral-grasslands in the uplands. Continuous grazing and cessation

of natural fire allowed woody species from the ridges and riparian areas to invade the open grasslands to such an extent that the area is now referred to as the Texas Brush Country.

Habitat loss for Zapata bladderpod has been largely due conversion of native rangeland to improved pasture, overgrazing, and ground disturbance activities associated with urban development, construction or improvement of highways and utility transmission systems necessary to support urban infrastructures. Oil and gas exploration have also impacted Zapata bladderpod habitat.

Competition from invasive grasses becomes an increasing threat when Zapata bladderpod habitat is disturbed (USFWS 2015). Many areas in South Texas are dominated by the introduced buffelgrass (*Pennisetum ciliaris*), an aggressive, exotic grass that is found extensively at several of the known Zapata bladderpod population sites. Kleberg bluestem grass *(Dicanthium annulatum*), used for erosion control on roadway ROWs, also invades natural areas and is present at all sites although not as extensively as buffelgrass (USFWS 2004).

Drought

The federal listing suggested that genetic drift might result from small population sizes during drought years. The Service included in the 2015 five year review that the species is likely well adapted to its arid environment and reproduces in sporadic pulses. Since almost all successful reproduction occurs during the relatively few boom years, the Service no longer believes the intervening drought years will cause genetic drift of otherwise healthy populations (USFWS 2015).

Land Use

With the exception of existing highway ROWs, which are owned and maintained by TxDOT, the majority of land in the action area is in private ownership and is primarily agricultural or ranch land. The action area has remained largely undeveloped and is expected to continue to be used for agricultural purposes. Development that is occurring in the action area primarily includes transportation, minor residential and commercial development, and minor industrial development.

Effects of the Action

Direct Impacts

All Zapata bladderpod plants within the existing population (approximately 200 individuals) that are located in the proposed ROW would be directly impacted either by the proposed construction of SL 195 or by relocation by TxDOT. This population is located on the western edge of the proposed ROW near the proposed intersection of SL 195 with US 83 and no other existing population is known from the immediate vicinity. This population was discovered during the spring and fall 2017 surveys for this roadway project.

Activities included as part of the proposed project that would impact Zapata bladderpod include vegetation clearing, scraping of topsoil, and grubbing. These activities would likely destroy any plants not designated for protection or relocated within the proposed ROW and the associated soil disturbance would eliminate any viable seeds stored beneath the surface soil layers. Vegetation removal would occur in areas where construction of the divided roadway sections are planned. Although this is a new-location roadway, utility relocations may occur as a result of the proposed project and could include additional vegetation clearing, scraping of topsoil, and grubbing.

Approximately 618 acres of suitable soils occur within the proposed project area (Please see Table 3 in the BA). A portion of this area would be cleared and leveled in order to accommodate the pavement, shoulders, and intersections for the proposed project. Other construction activities such as excavation, milling and grading, and soil compaction have the potential to cause irreparable damage to native soils and can increase soil erosion and off-site sedimentation.

TxDOT has included a plan to relocate individual plants that would otherwise be destroyed during construction. Digging up plants by hand and holding them in a storage facility before replanting on another property also causes direct effects. Plants may be damaged through the relocation process. Plants may become stressed when removed from the soil and moisture levels of plants can quickly drop during transport. The TxDOT SL 195 Zapata bladderpod relocation plan addresses these issues by removing an area of soil approximately four times the width of the dried base of the plant to keep the root ball intact. Plants will be placed into pots that utilize the soil from the location where the plants are dug up and protected from wind and sun while awaiting transport. Plants will be watered immediately after being transferred to pots and as needed thereafter.

Zapata bladderpod can flourish under favorable conditions; therefore the number of plants in these populations is an estimate and may vary at any given time due to changes in weather conditions. However, the actual number of Zapata bladderpod plants that would be impacted may be reduced by minimizing the area cleared during construction.

In addition to the direct effects in the project area, the potential for impacting Zapata bladderpod exists at PSL, areas that would be used by contractors during construction of the proposed new location roadway. The PSL's for SL 195 could include, but would not be limited to, staging areas and temporary construction offices. Because the areas surveyed for endangered plants were restricted to the proposed ROW, TxDOT has proposed a conservation measure to survey for endangered plant species within proposed PSL sites. If listed plants are identified at PSL locations, they will be protected or an alternate PSL will be utilized.

Indirect Effects

Construction of a new, divided roadway has the potential to cause fragmentation of contiguous plant and wildlife habitats or individual populations by creating a physical barrier on the landscape. Barriers, such as roadways, could prevent seed dispersal between plants or inhibit pollinator movement. An effect of habitat fragmentation on plants can be the creation of isolated populations that are no longer able to share genetic material with other populations. The

majority of the action area already includes various levels of grazing or wildlife management and has intermittent roads, residences, and oil and gas infrastructure. Construction of new roadways, or expansion of existing ones, often results in land-use changes in the immediate vicinity of the roadway by creating opportunities for commercial and/or industrial development. The construction of SL 195 may invite development of commercial facilities (namely convenience stores/gas stations) at intersections with other large roadways in the area.

Edge effects, such as increased soil erosion, the introduction or spread of exotic species, and increased human access to habitats, are also indirect effects that would have the potential to occur later in time. As the proposed project is the creation of a new roadway edge effects will be introduced by the new roadway within the project area. TxDOT has proposed several conservation measures to limit some edge effects including the possibility for increased soil erosion within the project area.

Critical Habitat Analysis

None of the eight designated recovery units or portions of the units occur within the proposed SL 195 ROW; therefore, no critical habitat will be impacted by the proposed roadway project.

Critical habitat units close to the project area represent the most likely area for relocation of Zapata bladderpod plants found within the SL 195 project area. The critical habitat units near the project area contain the correct soils for the species, and can be monitored by the Service. Plants to be relocated per the relocation plan for this project may be relocated to any Service tract currently designated as a Zapata bladderpod critical habitat unit with coordination with the Service. This is consistent with proposed revised recovery criteria for this species which includes discussion of propagation and reintroduction of Zapata bladderpod, if possible, including on Federal, State, and private land with consent of the landowner. The proposed revised recovery criteria include that reintroductions could take place on LRGV NWR tracts including Cuellar, Arroyo Morteros, and Arroyo Ramirez (USFWS 2019).

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, local, or private actions that are reasonably certain to occur in the action area considered in this BO. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Ongoing activities that may affect the listed species are standard transportation maintenance and enhancement activities, which would include mowing and vegetation pruning, the application of herbicide in the future ROW, and culvert repair or easement maintenance occurring outside pavement limits. Additional populations of plants that may occur adjacent to the proposed roadway could be affected by these activities.

Between FM 755 and Loma Blanca Road, the private lands are largely undeveloped and currently used as rangeland. The construction of SL 195 may invite development of commercial facilities (namely convenience stores/gas stations) at intersections with other large roadways in

the area such as FM 755, FM 3167, FM 649, and Loma Blanca Road/US 83. Although this area remains largely rural and has not experienced substantial development over the past several years, development along the new SL 195 may occur in the future.

Future development of properties, residential homes, and interchanges with other roadways along SL 195, or commercial traffic within south Texas and between Mexico and Texas may spur population growth on the properties adjacent to SL 195. Cities and the surrounding smaller municipalities are currently experiencing steady growth as a result of increased population growth along the US 83 corridor which is in close proximity to the proposed project. Future relocations and/or ROW acquisitions would occur if additional developments, transportation projects or other linear projects requiring land acquisitions, are planned, this would include the remainder of US 83 from the Zapata County line to FM 3169.

Per TxDOT multiple conversions of land use due to existing or future projects are anticipated near the proposed roadway project including:

- Construction of a Public School campus at 2803 West Monarch Lane, Rio Grande City, south of the proposed SL 195 alignment;
- Construction of Monarch Estates single-family subdivision, encompassing approximately 23 acres in Rio Grande City, south of the proposed project;
- Planned retail development at the northeast corner of the intersection of the realigned FM 755 roadway and US 83 in Rio Grande City of approximately 78 acres; and,
- Creation of dedicated parkland along Roma Creek near the western terminus of the proposed project.

It is unknown whether these projects would have any effect to listed plant species including Zapata bladderpod.

A positive cumulative effect to Zapata bladderpod may occur if relocated plants successfully establish within a designated critical habitat unit. These plants may augment an existing population or become a new population on a unit that is currently unoccupied.

CONCLUSION

After reviewing the current status of the Zapata bladderpod, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the project, as proposed, is not likely to jeopardize the continued existence of the Zapata bladderpod. Eight critical habitat units have been designated for the Zapata bladderpod in Starr County; however, this action does not adversely affect any of the critical habitat units and no destruction or adverse modification of critical habitat is anticipated.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act, and Federal regulations pursuant to section 4(d) of the Act prohibit taking (harass, harm, pursue, hunt, shoot, would kill, trap, capture, or collect, or attempt to engage in such conduct) of listed species of fish or wildlife without a special exemption. Harm is further

defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Harass is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to breeding, feeding, or sheltering. Incidental take is any take of listed animal species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or the applicant. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered a prohibited taking providing that such taking is in compliance with the terms and conditions of this incidental take statement.

Sections 7(b)(4) and 7(o)(2) of the Act generally do not apply to listed plant species. However, limited protection of listed plants is provided to the extent that the Act prohibits the removal and reduction to possession of Federally listed threatened or endangered plants on areas under Federal jurisdiction; the malicious damage of such plants on areas under Federal jurisdiction; or the destruction of endangered plants on non-Federal areas in violation of any State law or regulation or in the course of any violation of State criminal trespass law.

AMOUNT OR EXTENT OF TAKE ANTCIPATED

The Service does not anticipate the proposed action will incidentally take any listed animal species.

EFFECT OF TAKE

No take of any listed animal species is anticipated as a result of this proposed action.

REPORTING REQUIREMENTS

Annual reports during construction will be submitted to the Field Supervisor, Texas Coastal Ecological Services Field Office 4444 Corona Drive Suite 215, Corpus Christi, Texas 78411 and the Service Transportation Liaison, by September 30th of each year. Reports should include: 1) progress of seed collection and relocation measures proposed by TxDOT, 2) progress on the implementation of conservation measures proposed by TxDOT, 3) results of any additional plant surveys performed if needed, 4) status of any additional Zapata bladderpod found within the project area, 5) protection measures taken for plant populations discovered subsequent to the issuance of this BO and 6) an update on the status of construction.

TxDOT will coordinate and implement a protocol outlining procedures to notify TxDOT supervisors and the Service of any impacts to populations during and after construction activities. Initial notification must be made to the Service's Law Enforcement Office in McAllen, Texas (telephone: 956-686-8591) or Ecological Service Office at the Santa Ana NWR (956-784-7560) and that to the extent practicable, the finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

Conservation Recommendations

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans or to develop information. The Service recommends implementing the following actions:

1. Survey for new populations of Zapata bladderpod.
2. Educate landowners on the rarity, significance, and threats regarding the Zapata bladderpod population on their property and encourage stewardship agreements or conservation agreements.
3. Develop monitoring programs with voluntary landowner assistance.
4. Follow applicable environmental laws and regulations.

In order for the Service's Texas Coastal Ecological Services Field Office to be kept informed of actions minimizing and avoiding adverse effects or benefiting listed species or their habitats, we request notification of the implementation of any conservation recommendations.

Re-initiation-Closing Statement

This concludes formal consultation on the proposed construction of SL 195 from FM 755 to US 83, one mile west of the intersection with Loma Blanca Road. As provided in 50 CFR Sec. 402.16, re-initiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount of extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this BO; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this BO; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending re-initiation.

If you have questions regarding this BO, please contact Charlotte Kucera at (512) 490-0057.

Sincerely,

Charles Ardizonne
Field Supervisor

cc: Ernesto Reyes, USFWS, Alamo, TX (electronic)
John Young, TxDOT- ENV, Austin, TX (electronic)
Robin Gelston, TxDOT-Pharr District (electronic)

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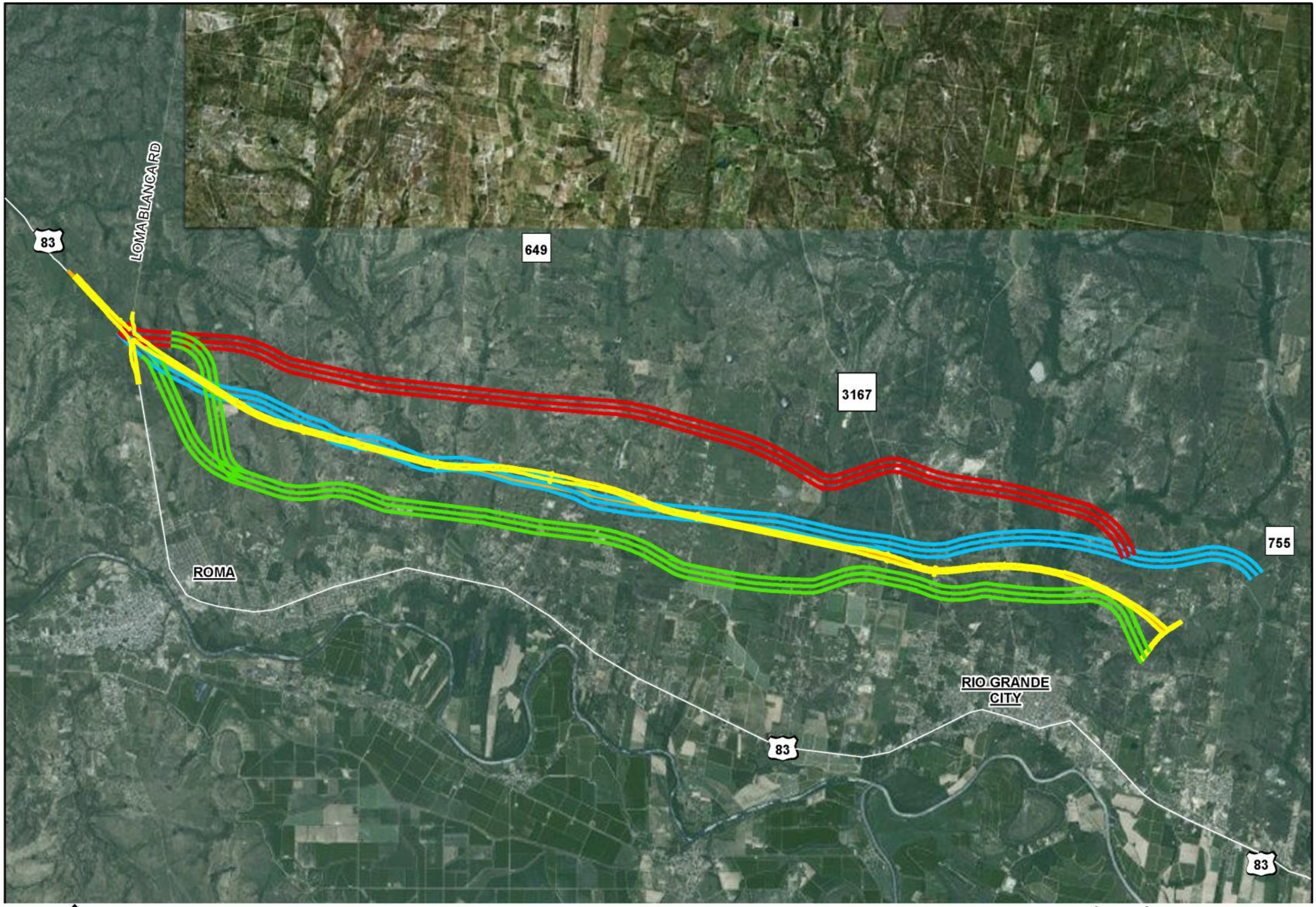
Appendix G—Alternatives Analysis

Alternatives Analysis Exhibit

Alternatives Analysis Table



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0 1 2 Miles

STATE LOOP 195
PRELIMINARY CORRIDORS EVALUATED

Legend

- PREFERRED ALTERNATIVE 2004
- PREFERRED ALTERNATIVE
- BLUE ALTERNATIVE
- GREEN ALTERNATIVE
- RED ALTERNATIVE

	Red	Blue	Green	Preferred
Archeology Sites (#)	2	7	9	9
Historical Markers (#)	1	1	0	1
Displacements	Residential - 10; Commercial 3	Residential - 25; Commercial 1	Residential - 79; Commercial 3	Residential - 5; Commercial 1
NHD Stream Crossings (#)	10	11	11	11
NHD Waterbodies (#)	0	1	0	0
NHD Waterbodies (acres)	0	4.1	0	0
NWI Wetlands (#)	13	14	17	4
NWI Wetlands (acres)	4.8	5.7	5.6	0.7
100-Year Flood Zone (acres)	252.6	264.8	279.8	70.9
Total Acres	1,884.0	2,099.5	2,243.7	703.1

This report was written on behalf of the Texas Department of Transportation by

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