DRAFT
Environmental Assessment

SL 335 Segment C-1, Amarillo District

From SW 9th Avenue to FM 1719

CSJ: 2635-04-034, 2635-04-031

Potter County, Texas

May 2020

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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Acronyms

Acronym	Definition
AADT	Average annual daily traffic
AOI	Area of influence
APE	Area of potential effects
BMP	Best management practice
BNSF	Burlington Northern Santa Fe
CEQ	Council on Environmental Quality
CGP	Construction General Permit
CFR	Code of Federal Regulations
CMP	Congestion management process
CO	Carbon monoxide
CSJ	Control-section-job number
DOT	Department of Transportation (US)
EA	Environmental Assessment
EMST	Ecological Mapping Systems of Texas
EO	Executive Order
EPA	Environmental Protection Agency
EPIC	Environmental permits, issues, and commitments
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FM	Farm-to-Market Road
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FWCA	Fish and Wildlife Coordination Act
IH	Interstate Highway
ISA	Initial Site Assessment
LEP	Limited English Proficiency
LPST	Leaking Petroleum Storage Tank
LWCF	Land and Water Conservation Fund
MBTA	Migratory Bird Treaty Act
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MSA	Metropolitan Statistical Area
MSAT	Mobile Source Air Toxics
MTP	Metropolitan Transportation Plan
NEPA	National Environmental Policy Act
NRHP	National Register of Historic Places

NWP	Nationwide Permit
PCN	Pre-Construction Notification
PM	Particulate matter
PS&E	Plans, specifications and estimates
PWC	Parks and Wildlife Code
RCRA	Resource Conservation and Recovery Act
RM	Ranch-to-Market Road
ROE	Right of entry
ROW	Right-of-way
RPST	Registered Petroleum Storage Tank
RSA	Resource Study Area
SB	Southbound
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Officer
SL	State Loop
SUP	Shared-use path
SW	Southwest
SW3P	Stormwater Pollution Prevention Plan
TCEQ	Texas Commission on Environmental Quality
TERP	Texas Emissions Reduction Plan
THC	Texas Historical Commission
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TSS	Total suspended solids
TxDOT	Texas Department of Transportation
US	United States Highway
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USFWS	United States Fish and Wildlife Service

1.0 Introduction

The Texas Department of Transportation (TxDOT) proposes to reconstruct the existing State Loop (SL) 335 to a controlled access, divided, four-lane facility with bicycle and pedestrian accommodations, from Southwest (SW) 9th Avenue to Farm-to-Market Road (FM) 1719 (Western Street) in Potter County, Texas. SL 335 provides a circumferential loop around the city of Amarillo and is divided into 10 designated segments for project development purposes. The proposed improvements between SW 9th Avenue and FM 1719 are within Segment C-1. The project length is approximately six miles, and a project location map is provided in Appendix A.

The purpose of this Environmental Assessment (EA) is to study the potential environmental consequences of the proposed project and determine if those consequences warrant preparation of an Environmental Impact Statement or a Finding of No Significant Impact (FONSI). The draft EA will be made available for public review and, following the comment period, TxDOT will consider any comments submitted. If TxDOT determines that there are no significant adverse effects, it will prepare and sign a FONSI, which will be made available to the public.

TxDOT anticipates federal funding for the SL 335 C-1 project; therefore, this EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, Council on Environmental Quality Regulations (40 CFR §1502.13), Federal Highway Administration (FHWA) Technical Advisory T6640.8A, and TxDOT guidance documents. 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.

2.0 Project Description

2.1 Existing Facility

The existing SL 335 from SW 9th Avenue to approximately 0.4 mile east of Hester Drive is a two-lane arterial roadway with 12-foot travel lanes and 10-foot outside shoulders. Between Hester Drive and FM 1719, the project terminus, the existing facility consists of two 12-foot main travel lanes, 10-foot outside shoulders, and 4-foot inside shoulders in each direction. Single two-lane grade separations currently exist at Ranch-to-Market Road (RM) 1061 (Tascosa Road) and over the Burlington Northern Santa Fe (BNSF) Railroad and Hester Road, with single two-lane bridges over three of the five unnamed tributaries of West Amarillo Creek (plus two one-lane bridges over one of the three tributaries for the access ramps east of RM 1061). The two remaining tributaries are traversed by the previously mentioned BNSF Railroad grade separation and a culvert.

The Old Soncy Trail from the Wildcat Bluff Nature Center south to Business I-40 is the only existing feature used by the public as a bicycle and pedestrian facility within the proposed project limits, although not formally designated as such. The total existing right-of-way (ROW) within the proposed project limits is approximately 249 acres.

The existing SL 335 C-1 facility is depicted in **Appendix B, Project Photographs**, **Appendix C, Schematics** (overlaid by proposed facility), and **Appendix D, Typical Sections**.

2.2 Proposed Facility

The proposed controlled-access, divided, four-lane facility would consist of two 12-foot main travel lanes in each direction with 10-foot outside and 6-foot inside shoulders. Frontage roads would consist of a 12-foot inside lane and a 14-foot outside shared use lane with 4-foot inside shoulders. The proposed facility would also include grade separations at major arterials and the BNSF railroad, along with connecting ramps. A new interchange to accommodate a future arterial would be added approximately one mile north of SW 9th Avenue. Bicycle and pedestrian improvements would include the 14-foot shared use outside lane and 6-foot sidewalks on northbound (NB) and southbound (SB) frontage roads. Between SW 9th Avenue and RM 1061 on the SB frontage road, rather than a 6-foot sidewalk, a 10-foot shared use path (SUP) is planned. See **Appendix C, Schematics**, and **Appendix D, Typical Sections**, for details of the proposed facility design.

Backless curb inlets to accommodate drainage would be included along the frontage roads in each direction. The proposed project may require utility relocations, which would be finalized during detailed design. The proposed design would accommodate a potential, future expansion of SL 335 within the proposed project limits to an ultimate six-lane section and would generally be constructed in phases. The general phasing for the proposed project is still being determined.

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 proposed project, SW 9th Avenue and FM 1719, were chosen because they are major intersecting arterials that carry traffic converging from the surrounding area. An analysis of local area traffic determined that improvements to the roadway would alleviate traffic on SL 335 between SW 9th Avenue and FM 1719 (see **Section 3.2, Supporting Facts and Data** for discussion).

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. Based

on the Loop 335 Corridor Development Study that was adopted by the Amarillo Metropolitan Planning Organization (MPO) in 2014, the proposed improvements are a reasonable expenditure that "stand alone" and do not require additional transportation improvements at either terminus of the proposed project in order to function with the completion of other phases of the Loop 335 Corridor. Since the improvements stand alone, the project cannot and does not irretrievably commit federal funds for other future transportation projects.

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. The proposed project would not restrict the consideration of alternatives for future phases or other reasonably foreseeable transportation projects; therefore, the project has both logical termini and independent utility.

The proposed SL 335 Segment C-1 project would be funded through Category DA, Develop Authority, under control-section-job number (CSJ): 2635-04-034. The proposed project is listed in the Amarillo Metropolitan Transportation Plan (MTP) 2020-2045 with an estimated cost of $82,500,000. The project MTP listing is shown in **Appendix E, Plan and Program Excerpts**.

3.0 Purpose and Need

3.1 Need

The proposed project is needed because (a) SL 335 Segment C-1 (SW 9th Avenue to FM 1719) is inadequate to meet future projected traffic volumes, resulting in diminished regional and local mobility; and (b) Segment C-1 does not provide an adequate alternate route for freight traffic around Amarillo when service disruptions delay Interstate Highway (IH) 40 east-west traffic or IH 27 and US 87/287 north-south traffic, affecting freight traffic capacity and mobility.

3.2 Supporting Facts and Data

3.2.1 *Anticipated Traffic Growth*

The greater Amarillo area has experienced moderate population growth since 2000—a trend expected to continue. The City of Amarillo grew by approximately five percent between 2010 and 2018, while Potter County total population declined slightly (approximately one percent) during that same period (**Table 1**).

Table 1. Recent Total Population Growth

Location	2000 Population[1]	2010 Population[2]	Percent Growth 2000-2010	2018 Population (estimate)[3]	Percent Growth 2010-2018
Amarillo	173,627	190,695	10%	199,924	4.8%
Potter County	113,546	121,073	7%	119,648	-1.2%
Texas	20,851,820	25,145,561	21%	28,701,845	14.1%

Source: [1]US Census Bureau, Census 2000, SF1 100% data; [2]US Census Bureau, 2010 Census, SF1 100% data; [3]US Census Bureau, 2018 Population Estimates

Based on population projections, a 26-percent increase in population growth is anticipated between 2015 and 2040 for the Amarillo Metropolitan Statistical Area (MSA) (**Table 2**).

Table 2. Projected Population Growth

Location	Year			
	2015	2025	2035	2040
Amarillo MSA	260,602	282,345	310,279	327,450
% Growth From 2015	--	8%	19%	26%

Source: Texas Demographic Center, 2018 Texas Population Projections

Employment in the greater Amarillo area is provided largely by the education, health care, government, and various other industrial sectors. The Panhandle Regional Planning Commission projects that future economic growth for the Texas Panhandle region, specifically the Amarillo area, will continue within traditional sectors such as agriculture and oil/gas but will also be driven by improvements to educational institutions such as Frank Phillips College, West Texas A&M University, and Texas Tech University's proposed veterinary school, which would be adjacent to the proposed project, if constructed. A potential future east-west city road located north of SW 9th Street (which is being accommodated by the proposed project) could provide a new connection to the veterinary school. Other potential sources of employment growth include increased technology defense services provided by Pantex, and Bell Helicopter.

The Amarillo Comprehensive Plan identifies several anticipated growth patterns for the greater Amarillo area. The plan notes that the Harrington Regional Medical Center, located near the southeast quadrant of Segment C-1, will remain an employment center within the metropolitan area. As the center grows, ancillary development such as restaurants, hotels, and other industries are also anticipated to increase employment. Based on projections, land use conversion from agricultural, ranching, and vacant land uses to residential and commercial land uses is expected in the project vicinity. Conversion from vacant land use to

residential land use is currently speculated for several large parcels located adjacent to the proposed project to the east and west.

Based on these trends, the Amarillo MPO has stated that expected growth in the population and labor force coupled with an increase in single-occupant vehicle trips indicates that the existing system transportation demand will continue to grow. Based on data collected by TxDOT, Annual Average Daily Traffic (AADT) counts between 2013 and 2018 indicated substantial traffic growth on SL 335 Segment C-1. AADT grew between 78 percent and 83 percent in the northern half of the project area, and by approximately 23 percent in the southern half, where traffic was already substantially higher (**Table 3**).

Table 3. Recent Traffic Growth (AADT)

Location	2013	2018	% Change
SW 9th St. – RM 1061	7,302	9,007	23%
RM 1061 – N. Coulter St.	4,210	7,717	83%
N. Coulter St. – FM 1719	4,195	7,457	78%

Source: TxDOT, 2018 District Traffic Web Viewer (accessed February 2020)

Traffic on Loop 335 within the project limits is also expected to increase in the future. Forecasts from TxDOT Planning and Programming Division indicate that traffic will grow from 14,780 AADT in 2025 to 22,110 in 2045 (approximately 50 percent), and to 24,550 by 2055 (approximately 66 percent) on existing SL 335 within the project limits.

The recent and projected increases in population and employment, driven largely by commercial and residential development in southwest and northwest Amarillo, are anticipated to result in a need for transportation improvements to accommodate corresponding growth in traffic volumes. As development and associated traffic grows, mobility within and throughout the SL 335 corridor can be expected to decrease without further transportation system improvements.

3.2.2 *Freight Transport Mobility*

IH 27 and IH 40 are major freight corridors through the Amarillo area. Both highways are expected to experience future growth in total freight tonnage throughout their extent in Texas. According to TxDOT freight mobility data, IH 27 is expected to carry up to 25 million tons of freight and IH 40 is expected to carry up to 220 million tons of freight by 2040, compared with up to 10 million tons (IH 27) and up to 50 million tons (IH 40) in 2010. This represents potential increases of approximately 150 percent and 360 percent respectively for the two interstate highways between 2010 and 2040.

When future service disruptions on IH 40, IH 27 and US 87/287 occur within the Amarillo area, these incidents will restrict freight movement and create the need for “corridor

redundancy" (i.e., additional freeway options) for traffic traveling through the region. The anticipated growth in freight and general traffic, coupled with the need for corridor redundancy, the continued growth of the Amarillo metropolitan area, and the City of Amarillo's desire to detour freight traffic around the downtown area, justifies a need for an alternate freight and hazardous cargo route around the City of Amarillo. The SL 335 corridor is a logical alternative route for providing freight corridor redundancy through the Amarillo area, but would require improvements to accommodate freight traffic adequately during service disruptions on the main routes.

3.3 Purpose

The purpose of the proposed project is to increase regional and local mobility and provide corridor redundancy for freight traffic and hazardous cargo in the Amarillo region.

4.0 Alternatives

4.1 Build Alternative

The Build Alternative would upgrade the existing SL 335 roadway to a new controlled access highway facility (with four grade-separated main lanes, frontage roads, connecting ramps, and accommodation of future expansion to an ultimate six-lane section within proposed ROW), include a new interchange to accommodate a future road, and add bicycle and pedestrian facilities (see **Section 2.2, Proposed Facility**). The expanded capacity and improved efficiency of the highway facility would meet the project purpose and need by addressing local and regional mobility concerns and freight mobility and capacity concerns (see **Chapter 3, Purpose and Need**).

4.2 No Build Alternative

The No Build Alternative consists of leaving SL 335 as it is today, a two-lane arterial roadway with no frontage roads. The No Build Alternative would not address local and regional mobility concerns or freight mobility and capacity concerns and would not meet the project purpose and need. Therefore, the Build Alternative is the preferred alternative. The No Build Alternative is evaluated throughout the EA for comparison purposes.

4.3 Preliminary Alternatives Considered but Eliminated from Further Considerations

Although refinements in the proposed alignment along the existing SL 335 corridor were explored during the design process, no other preliminary alternatives were identified.

5.0 Affected Environment and Environmental Consequences

In support of this EA, the following technical reports were prepared. These topics are summarized in the EA but are covered in greater detail within their respective reports. Copies of these documents are available at the TxDOT Amarillo District Office and will be available at the public hearing:

- Community Impact Assessment Technical Report
- Visual Impact Assessment Memorandum
- Archeological Survey Report
- Historic Resources Survey Report
- Water Resources Technical Report
- Biological Evaluation
- Tier I Site Assessment
- Air Quality Resources Technical Report
- Hazardous Materials Initial Site Assessment
- Traffic Noise Analysis Technical Report
- Induced Growth Analysis
- Cumulative Impact Analysis

5.1 Right-of-Way/Displacements

The proposed project would require the acquisition of approximately 100 acres of additional ROW impacting 23 parcels with no potential displacements, subject to final design considerations. No residences, businesses, places of worship, or public facilities would be displaced or require relocation. See **Appendix C, Schematics**, to view where additional ROW is proposed for the project.

Although no displacements or relocations are anticipated because of the proposed project, TxDOT has and will continue to communicate with the affected property owners to provide adequate compensation for impacts to their properties. Acquisition will be implemented in accordance with the TxDOT Right-of-Way Acquisition and Relocation Assistance Program and the Uniform Relocation Assistance and Real Property Acquisitions Policy Act, as amended in 1987.

5.2 Land Use

Most of the land use along the study corridor consists of undeveloped land, with scattered clusters of residential and commercial developments predominantly at or near major intersections. The westernmost portion of the study area is primarily ranchland and grassland. The residential communities are a mix of large-lot homes and newer residential subdivisions. These areas are visible on the **Project Location Map** in **Appendix A**.

ROW acquisition for the Build Alternative would result in the conversion of 100 acres of undeveloped and agricultural land to transportation use. The No-Build Alternative would not require land use conversion. The proposed project is consistent with the City of Amarillo's Comprehensive Land Use Plan and Zoning Ordinance. An approximate 0.9-mile portion of SL 335 within the project limits lies inside the City's corporate limits, with the remainder of the project lying outside city limits but within the Amarillo extraterritorial jurisdiction in Potter County.

5.3 Farmlands

The Farmland Protection Policy Act (FPPA) was intended to minimize the contribution of federal programs to the unnecessary conversion of prime and important farmlands to nonagricultural uses. Most of the proposed project area occurs on land identified as "non-urbanized area" on Census Bureau maps and would be subject to the FPPA. The only active agricultural activity observed adjacent to the project site was livestock grazing. The proposed Build Alternative would convert farmland subject to the FPPA to a nonagricultural, transportation use. Approximately 32.5 acres of the proposed 100 acres of additional ROW are mapped as prime farmland. However, the results of the Farmland Conversion Impact Rating corridor assessment completed for the project (appended to the **Biological Evaluation**, on file at the TxDOT Amarillo District office) do not warrant further consideration for protection or coordination with the Natural Resources Conservation Service and no additional sites need to be evaluated.

No impacts to farmland would occur under the No Build Alternative.

5.4 Utility Relocation

Several utilities are present within the project limits. Utility crossings and potential parallel conflicts include items such as water, gas service, wastewater, fiber optic and electric power lines. It is reasonably foreseeable that utilities will have to be relocated as a result of this project. The impacts resulting from removal of any utilities from within existing highway ROW have been considered as part of the project impacts under each of the resource area subheadings within this environmental assessment. Additionally, if utilities will be re-located within highway ROW, then the impacts resulting from re-installation of the utilities within highway ROW has also been considered as part of the project impacts under each of the resource area subheadings within this EA. To the extent that the owner of any displaced utility determines to re-install the displaced utility at a location outside of highway ROW, such location will be determined by the owner of the utility subject to the rules and policies governing the utility relocation process.

5.5 Bicycle and Pedestrian Facilities

Existing bicycle and pedestrian facilities along SL 335 within the project limits are currently limited to the Old Soncy Trail, an abandoned road within TxDOT ROW along the west side of SL 335 between SW 9th Street and the Wildcat Bluff Nature Center, which is commonly used by the public as a hike and bike trail. The proposed SL 335 project would provide bicycle and pedestrian improvements by including a 14-foot shared-use lane on the frontage roads, adjacent 6-foot sidewalks, and a 10-foot shared-use path (SUP) between SW 9th Avenue and RM 1061 adjacent to the southbound frontage road. The SUP would provide a bicycle and pedestrian facility comparable to the existing Old Soncy Trail, while maintaining access to the Wildcat Bluff Nature Center and North Soncy Road and providing continuous access to RM 1061. Overall, the proposed SL 335 Build Alternative would provide a net benefit to bicyclists and pedestrians.

The No Build Alternative would provide no improvements to bicycle or pedestrian transportation.

5.6 Community Impacts

The proposed project is located on the northwestern edge of Amarillo, lying partly within city limits but mostly within the city's extraterritorial jurisdiction in Potter County. As noted previously in **5.2, Land Use**, most of the land use along the study corridor consists of undeveloped land, with scattered clusters of residential and commercial developments predominantly at or near major intersections. An overview of the project area and available community resources can be found in **Appendix F, Map 1, Community Resources**.

The addition of travel lanes and raised medians could increase the sense of separation between the two sides of the roadway; however, the land adjacent to the project area is largely undeveloped rural land so the project is not erecting a barrier or increasing the impact of a barrier between residential areas and community facilities. The separation of the eastbound and westbound travel lanes by the medians would facilitate safer and more efficient access to residences, community facilities, and businesses along and near the corridor.

The proposed improvements would increase regional and local mobility by accommodating the growing traffic demand from an increase in housing developments within the community. Additionally, bike/pedestrian facilities would be introduced and/or maintained along the proposed project, providing connectivity for these travel modes. Overall, the proposed project would improve mobility throughout the community study area by providing an urban highway for the growing community. Neither the Build Alternative nor the No Build Alternative would have substantial adverse impacts on community cohesion, access and travel patterns, or other community resources. Impacts are discussed in more detail in the **Community Impact Assessment Technical Report**, which is on file and available for review at the TxDOT Amarillo District office.

Executive Order (EO) 12898 entitled "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of the programs on minority and low-income populations. A minority population is defined as a group of people and/or community experiencing common conditions of exposure or impact that consists of persons classified by the US Census Bureau as: Hispanic or Latino, Black or African-American, American Indian and Alaska Native, Asian, and/or Native Hawaiian and other Pacific Islander. "Low-income" is defined as persons in households with income below the federal poverty level ($26,200 for a household of four in 2020). "Disproportionately high and adverse effects" are defined as adverse effects that: (1) are predominantly borne by a minority population and/or a low-income population; or (2) would be suffered by the minority population and/or low-income population and would be appreciably more severe or greater in magnitude than the adverse effects that would be suffered by the non-minority population and/or non-low-income population.

No census block groups in the study area showed a population that was 50 percent or more minority. Census block groups in the study area ranged from approximately 84 percent to 86 percent White non-Hispanic. The Hispanic or Latino population ranged from approximately six percent to 11 percent; Black or African-American, from approximately one percent to four percent; and Asian, from approximately less than one percent to six percent (US Census Bureau 2011).

No census block groups showed annual median household income below the poverty level. Median incomes for the three study area census block groups (in 2017 inflation-adjusted dollars) were $51,897; $54,556; and $124,559 (US Census Bureau 2018).

Census data tables are provided in the **Community Impact Assessment Technical Report**. Census block groups are mapped in **Appendix F, Map 2**.

Neither the Build Alternative nor the No Build Alternative would have disproportionately high and adverse effects on minority or low-income populations.

Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency," requires federal agencies to examine the services they provide, identify any need for services to those with Limited English Proficiency (LEP), and develop and implement a system to provide those services so that LEP persons can have meaningful access to them.

The LEP population (population speaking English "less than very well") varies in proportion to the general population throughout the census block groups encompassing the proposed project (US Census Bureau 2018):

- Block Group 1, Census Tract 133, Potter County: 1.9 percent, the southwestern portion of the project area.

- Block Group 3, Census Tract 133, Potter County: 2.8 percent, the central portion of the project area.
- Block Group 1, Census Tract 134, Potter County: 6.2 percent, the northeast portion of the project area.

Within the study area block groups, 1.6 percent of the population speaks English "less than very well", indicating the presence of LEP populations in the study area. Tables providing more detail about the LEP populations are appended to the **Community Impact Assessment Technical Report**. The predominant LEP language in the area is Spanish. Throughout the area near the proposed project, no signage was observed in any languages other than English.

No requests for special language accommodations were made for the public open house (held May 21, 2019) or the meetings with affected property owners. Efforts will continue to be made throughout the project development process to engage LEP populations by, upon request, providing project and meeting materials and notices in both English and the requested language.

5.7 Visual/Aesthetics Impacts

A **Visual Impact Assessment (VIA) Memorandum** was prepared to evaluate potential impacts on visual quality from the proposed project. The existing visual character and quality of the project alignment itself is dominated by a relatively undisturbed rural environment with the built environment consisting of a high-powered transmission line that runs parallel to most of the alignment, assorted intersecting power lines, adjacent and intersecting pipelines, as well as industrial properties and isolated residences (see **Appendix B, Project Photographs**).

Because of the relatively flat nature of the terrain and the relatively shallow proposed overpasses and bridges, potential views of the proposed facility would be limited to adjacent properties. Therefore, the project can be considered compatible with the visual quality of the existing environment because of the limited exposure of the proposed project and disturbed nature of the current alignment.

Viewer sensitivity is limited to residents immediately adjacent to the project area; however, the current ROW consists of the existing roadway, a high-powered transmission line, assorted power lines, and pipelines. No concerns were expressed from a meeting with affected property owners and public meeting attendees regarding the proposed roadway with regard to visual impacts. Therefore, based on the lack of public comment and assumptions from the viewshed analysis, viewer sensitivity to the project is perceived to be low.

Overall, the proposed Build Alternative would have no impact on the visual resources of the natural, cultural, and project environments. No impact on the ability of the affected population to view visual resources is anticipated. Visual quality would, therefore, not be altered by the proposed project. The proposed project would have no adverse impacts on visual quality nor

would it create opportunities to enhance visual quality in the project area. No mitigation is necessary. The No Build Alternative would not impact visual resources.

Section 136 of the Federal Aid Highway Act of 1970 requires consideration of aesthetic values in the highway planning process. It has always been the policy of TxDOT to build visually pleasing travel ways, coupling beauty with their functional capability. It is anticipated the aesthetic effect would be equal to or better than the existing area.

5.8 Cultural Resources

Cultural resources are structures, buildings, archeological sites, districts (a collection of related structures, buildings, and/or archeological sites), cemeteries, and objects. Evaluation of impacts to cultural resources has been conducted under Section 106 of the National Historic Preservation Act in accordance with the Programmatic Agreement among FHWA, TxDOT, the Texas State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings.

5.8.1 *Archeology*

The archeological area of potential effects (APE) for the proposed SL 335 C-1 project is defined as the footprint of all proposed improvements within both existing and proposed new ROW. For these improvements, the APE includes approximately 249 acres of existing ROW and 100 acres of proposed new ROW.

Background research for this project consisted of an online records search through the THC's Archeological Sites Atlas (2019) and a review of historical maps and aerial photographs. Research focused on the identification of archeological sites, State Antiquities Landmarks, Recorded Texas Historic Landmarks, National Register of Historic Places (NRHP) properties and districts, historical markers, cemeteries, and previously conducted archeological surveys within 0.62 mile (one kilometer) of the APE. The search identified seven previously conducted archeological surveys and six archeological sites. Of these, three previous surveys and two archeological sites overlap the current APE.

An intensive archeological survey was completed to inventory and evaluate archeological resources within the APE. No survey was conducted within the existing ROW, as it has been significantly impacted by the construction of SL 335, the installation of utilities, and the construction of bar ditches and associated culverts. Project staff visually inspected all areas of the newly proposed ROW within the APE, though right of entry (ROE) was denied for one property (7.75 acres). The present survey focused on 82.25 acres within the proposed new ROW. Project archeologists completed the survey under Texas Antiquities Code permit number 9091, with two archeologists conducting fieldwork in September 2019. The survey consisted of a 100-percent intensive pedestrian survey with shovel testing. A team of TxDOT archeologists concurrently completed backhoe trenching investigations at strategic locations

throughout the APE. In total, the survey resulted in 76 shovel tests and eight backhoe trenches. The survey and results are documented in TxDOT's **Archeological Survey Report**.

The survey did not record any new archeological sites; however, archeologists revisited the two previously recorded archeological sites that crossed the APE, 41PT62 and 41PT137. The site boundaries for both sites were either adjacent to or overlapping the APE and had potential to be impacted by construction activities associated with the proposed undertaking. No evidence of either site was observed at the mapped locations during this survey. Therefore, no further field work is recommended in advance of road construction. No artifacts were collected as part of this survey.

The proposed Build Alternative would not result in direct impacts to known archeological resources. In the unlikely event that archeological resources are discovered during construction of the proposed project, TxDOT would immediately initiate cultural resource discovery procedures. All work in the vicinity of the discovery would cease until a specialist from TxDOT and/or the THC would be able to assess the discovery's significance and the need for any additional investigation. The No Build Alternative would have no impact on archeological resources.

The SHPO concurred with the findings of the **Archeological Survey** on October 29, 2019. On November 28, 2019, TxDOT concluded consultation with federally-recognized tribes whose areas of interest encompass the proposed project. TxDOT received no comments regarding the proposed project from tribes. See **Chapter 6, Agency Coordination**, and **Appendix G, Resource Agency Coordination**.

5.8.2 *Historic Properties*

Cultural resources staff conducted a reconnaissance survey of the APE, which, in accordance with the Section 106 PA, was defined as 150 feet from the locations where the roadway is proposed to be elevated over five feet, 150 feet from proposed new ROW, and existing ROW in all other areas (**Appendix F, Map 3**). Historians documented all resources constructed in 1978 or earlier (45 years prior to the let date) in October 2019. The **Historic Resources Survey Report** provides documentation of the survey and its findings and is on file with the TxDOT Amarillo District.

The historic resources survey resulted in the identification of three historic-age properties within the APE (**Appendix F, Map 3**). Of these three resources, none have been recommended eligible for listing in the NRHP. The proposed Build Alternative would not require any ROW or permanent easements from any of the historic-age parcels. Therefore, it is recommended that the proposed project has no historic properties present or affected. No adverse effects are anticipated from the No Build Alternative.

TxDOT historians have determined that project activities pose no adverse effect to historic properties and that individual coordination with the SHPO is not required (**Appendix G, Resource Agency Coordination**).

5.9 Protected Lands

Section 4(f) of the US Department of Transportation (DOT) Act requires special consideration to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. Section 6(f) of the Land and Water Conservation Fund (LWCF) Act protects parklands and recreational areas purchased or developed with federal LWCF funds from being converted to non-recreational uses. Chapter 26 of the Texas Parks and Wildlife Code (PWC) protects any public land designated and used as a park, recreation area, scientific area, wildlife refuge, or historic area from acquisition or use for other purposes.

The Old Soncy Road, an abandoned road locally known as "Old Soncy Trail" and used by the public as a hike-and-bike trail, is located on the west side of SL 335, from Business IH 40 north to the Wildcat Bluff Nature Center, and lies within the proposed project limits. It was previously a two-lane asphalt road replaced by TxDOT with SL 335 in the late 1990s and afterward abandoned. Lacking signage or amenities, the abandoned road lies within TxDOT ROW and is not designated for recreational use by any public entity. Consequently, Old Soncy Road/Trail is not a recreational resource subject to the provisions of Section 4(f) of the DOT Act or Chapter 26 of the PWC.

The Wildcat Bluff Nature Center, 2301 North Soncy Road, lying immediately west of the SL 335 corridor, provides outdoor recreational opportunities to the public, such as nature/hiking trails. However, this property is privately owned and, therefore, not subject to the provisions of Section 4(f) of the DOT Act or Chapter 26 of the PWC.

No other public parks, recreation areas, wildlife or waterfowl refuges, significant historic sites, or scientific areas are located adjacent to or in proximity to the proposed project. No lands purchased or developed with LWCF funding are located adjacent to the project. Consequently, no Section 4(f), Section 6(f) or Chapter 26 properties are present in the project area.

5.10 Water Resources

5.10.1 *Clean Water Act, Section 404*

Five potentially jurisdictional waters of the US, consisting of unnamed, intermittent tributaries to West Amarillo Creek, were identified within the project area. These crossings are currently bridged and culverted within the existing facility. All surveyed waters are linear waters and are depicted in **Appendix F, Maps 4.1** and **4.2**. Detailed descriptions of the potential waters of the US are included in the **Water Resources Technical Report**, which is on file with the TxDOT

Amarillo District, and impacts are summarized in **Table 4** below. Photographs of these resources are shown in **Appendix B, Photos 19 - 36**. Build Alternative impacts are estimated to include 0.16 acre to linear streams. No wetlands were identified in the proposed project area.

This project will involve regulated activity in jurisdictional waters and therefore will require authorization under Section 404. The following table shows the waters that are anticipated to be jurisdictional waters in which regulated activity is anticipated to take place. It also indicates whether the impacts are anticipated to be authorized under Section 404 by a non-reporting nationwide permit (i.e., no pre-construction notification required), or if it is anticipated that a nationwide permit with pre-construction notification, individual permit, letter of permission, or regional general permit will be required."

All proposed roadway and drainage improvements would be designed in a manner to avoid or minimize impacts to jurisdictional crossings. It is anticipated that impacts to waters of the US would be authorized through Nationwide Permit (NWP) 14 without Pre-Construction Notification (PCN). The No Build Alternative would have no impact on waters of the US.

Table 4. Summary of Impacts to Waters of the US within the Project Area

Name of waterbody	Type of waterbody	Location of waterbody	Covered by non-reporting nationwide permit under Section 404	Nationwide permit with pre-construction notification, individual permit, letter of permission, or regional general permit required under Section 404?
Tributary to West Amarillo Creek	Intermittent Stream	North of SW 9th Avenue (see Appendix F, Maps 4.1 and 4.2)	Yes	No
Tributary to West Amarillo Creek	Intermittent Stream	North of Stoneridge Drive (see Appendix F, Maps 4.1 and 4.2)	Yes	No
Tributary to West Amarillo Creek	Intermittent Stream	North of Tascosa Road (see Appendix F, Maps 4.1 and 4.2)	Yes	No

Name of waterbody	Type of waterbody	Location of waterbody	Covered by non-reporting nationwide permit under Section 404	Nationwide permit with pre-construction notification, individual permit, letter of permission, or regional general permit required under Section 404?
Tributary to West Amarillo Creek	Intermittent Stream	South of Hester Drive (see Appendix F, Maps 4.1 and 4.2)	Yes	No
Tributary to West Amarillo Creek	Intermittent Stream	North of Hester Drive (see Appendix F, Maps 4.1 and 4.2)	Yes	No

The need for an individual permit under Section 404 is not anticipated. If it is later determined that an individual permit under Section 404 is needed, compliance with EPA's Section 404(b)(1) Guidelines will be confirmed prior to submittal of the individual permit application.

The potential for indirect (encroachment-alteration) effects on wetlands and waters of the US related to the Build Alternative would be mitigated through permanent (post-construction) best management practices (BMPs), as discussed in **Section 5.10.2, Clean Water Act, Section 401**, below. Wetlands and waters of the US could receive an increased amount of sediment if storm water were released from the project area despite the use of BMPs. To minimize the potential for adverse impacts, BMPs would be regularly inspected and proactively maintained. No substantial indirect effects to waters of the US from induced growth related to the Build Alternative are anticipated (**Section 5.15, Induced Growth**).

5.10.2 *Clean Water Act, Section 401*

For a project that will use a NWP under Section 404 or Section 10, regardless of whether the NWP is non-reporting (i.e., assumed) or reporting (i.e., requires submittal of a PCN), TxDOT complies with Section 401 of the Clean Water Act by implementing TCEQ's conditions for NWPs. For projects that require authorization under Section 404 or Section 10 beyond a NWP, TxDOT complies with Section 401 of the Clean Water Act by including a Tier I or Tier II checklist (depending upon the amount of disturbance/impact) in the individual permit, letter of permission, or regional general permit application that is submitted to the USACE, and then complying with the conditions of the Tier I or Tier II checklist.

5.10.3 *Executive Order 11990, Wetlands*

Executive Order (EO) 11990, Protection of Wetlands (1977), requires federal agencies to minimize the destruction or modification of wetlands. The proposed project would have no impact on wetlands; therefore, EO 11990 does not apply to the proposed project.

5.10.4 *Rivers and Harbors Act*

No navigable waters regulated under Sections 9 and 10 of the Rivers and Harbors Act lie within the project area. The proposed project would not impact any waters regulated by the Rivers and Harbors Act.

5.10.5 *Clean Water Act Section 303(d)*

Storm water runoff from the proposed project would not discharge within five linear miles nor is it within the watershed of a surface water impaired assessment unit per the 2018 303(d) list. Consequently, the proposed action is not expected to contribute a constituent of concern to an impaired water body.

5.10.6 *Clean Water Act Section 402*

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 (MS4) 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.

5.10.7 *Floodplains*

Potter County, in which the proposed project is located, participates in the National Flood Insurance Program. According to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (Panel Numbers 48375C0368C, 48375C0369C, 48375C0504C,

48375C0505C, and 48375C0510C) of the county, the proposed project lies within the FEMA-designated one-percent annual chance (100-year) floodplain associated with unnamed tributaries of West Amarillo Creek **(Appendix F, Maps 4.1** and **4.2)**. Coordination with the local floodplain administrator would be required because the project is within the 100-year floodplain. This coordination will be completed prior to the start of construction.

This project is subject to and will comply with federal EO 11988 on Floodplain Management. The department implements this EO 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 EO 11988 at 23 CFR 650.105(q).

5.10.8 *Wild and Scenic Rivers*

The proposed project is not located in a county that contains resources regulated under the Wild and Scenic Rivers Act. Consequently, it was determined that neither the Build nor the No Build Alternative would have an impact on this resource category or subject matter.

5.10.9 *Coastal Barrier Resources*

The Coastal Barrier Resources Act (CBRA) does not apply.

5.10.10 *Coastal Zone Management*

The project is not located within the Texas Coastal Management Plan (TCMP) boundary. Therefore, a consistency determination is not required.

5.10.11 *Edwards Aquifer*

The proposed project does not lie within an area subject to regulation under the TCEQ's Edwards Aquifer Rules (30 TAC 213). The TCEQ Edwards Aquifer Rules do not apply. The EPA Edwards Aquifer MOU does not apply.

5.10.12 *International Boundary and Water Commission*

The proposed project is not located in a county that contains resources regulated by the International Boundary and Water Commission. This project does not cross or encroach upon the floodway of the International Boundary Water Commission (IBWC) right-of-way or an IBWC flood control project.

5.10.13 *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.

5.11 Biological Resources

A **Biological Evaluation** and **Tier I Site Assessment** were conducted for the proposed SL 335 C-1 project and documentation is on file and available for review at the TxDOT Amarillo District.

5.11.1 *Texas Parks and Wildlife Coordination*

Early coordination is required between TxDOT and the Texas Parks and Wildlife Department (TPWD) per the 2013 MOU between the two departments. Impacts to vegetation (as described in **Section 5.11.2**) would exceed the thresholds established under the 2013 MOU (revised 2017) between TxDOT and TPWD for four habitat types identified in the existing and proposed project ROW and easements. In addition, the project is within range, has suitable habitat for, and may impact one state-listed threatened species and 10 species of general conservation need (SGCNs). See **Section 5.11.11, Threatened, Endangered and Candidate Species**, for further details. Early coordination with TPWD was completed on November 11, 2019, as documented in **Chapter 6, Agency Coordination**, and **Appendix G: Resource Agency Coordination**. BMPs recommended by TPWD are described in the relevant sub-sections that follow.

5.11.2 *Impacts to Vegetation*

The proposed Build Alternative may disturb the following habitats in an area greater than the area of disturbance indicated in the Threshold Table Programmatic Agreement:

- Cliffs, Breaks, and Barrens: up to 2.43 acres
- Disturbed Prairie: up to 24.70 acres
- Mixed/Arid/Sand Grasslands: up to 245.76 acres
- Western Wetlands, Riparian Habitat: up to 9.46 acres

As noted in the preceding section (**5.11.1**), these impacts required coordination between TxDOT and TPWD. See **Appendix B, Project Photographs**, and **Appendix F, Maps 5.1 – 5.3**, which show the type and location of vegetative habitat in the existing and proposed ROW.

Impacts to vegetation would be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project. Indirect (encroachment-alteration) effects would include fragmented vegetation and habitats, which could result in reduced movement of wildlife and vulnerability of remaining vegetated areas. Substantial adverse impacts to

vegetation and habitats due to induced growth are not anticipated (**Section 5.15, Induced Growth**). The No Build Alternative would have no impact on vegetation.

The following BMPs would be implemented for vegetation. See **Section 8.2.1, Vegetation Impact Avoidance**, for detailed BMPs:

- Minimizing the amount of vegetation cleared and avoiding removal of native vegetation to the greatest extent practicable
- Discouraging the use of non-native vegetation in landscaping and revegetation
- Recommended use of seed mix from locally adapted native species only
- Avoiding clearing activities during the general bird nesting season
- Avoiding vegetation clearing activities during the general bird nesting season, March through August, to minimize adverse impacts to birds.

5.11.3 *Executive Order 13112 on Invasive Species*

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

5.11.4 *Executive Memorandum on Environmentally and Economically Beneficial Landscaping*

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.

5.11.5 *Impacts to Wildlife*

The greater part of the project area is in the Southwestern Tablelands ecoregion with some parts located in the High Plains ecoregion. Mixed grass and short grass prairies dominate the area within and surrounding the project area. Texas Panhandle wildlife such as prairie dogs, foxes, lizards, eagles, hawks, and mountain plovers are likely to occur in the area surrounding the project. Small burrowing mammals and reptiles are likely to occur in the project area, given the sighting of burrows within TxDOT existing ROW during field surveys conducted on April 15-16, 2019. No animals were sighted during field surveys.

Heavy machinery could kill small, low-mobility animals or could cause soil compaction, impacting animals that live underground. However, no long-term impacts to wildlife populations are anticipated because of the proposed project. In areas temporarily impacted, wildlife species would likely re-colonize the available habitat areas within and surrounding the project area after construction. BMPs used to protect rare, endangered, and threatened

species will also help minimize temporary impacts to all wildlife (see **Section 8.2.2, Protection of Wildlife** and **8.2.4, Protection of Rare, Threatened and Endangered Species**).

Regarding indirect (encroachment-alteration) effects under the Build Alternative, such effects may include fragmented vegetation and habitats, which could result in reduced movement of wildlife and vulnerability of remaining vegetated areas. The existing habitats are already fragmented by the existing SL 335 roadway, as well as construction of surrounding residential properties. Substantial adverse impacts to species due to induced growth are not anticipated. (**Section 5.15, Induced Growth**).

Discussion of potential impacts/effects to rare, threatened, or endangered wildlife species and their habitats is included in **Section 5.11.11, Threatened, Endangered, and Candidate Species**. Impacts to wildlife from construction activity are discussed in **Section 5.17, Construction Phase Impacts**.

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

5.11.6 *Migratory Bird Protections*

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 vegetation clearing and ground disturbance 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 there would be no impacts to migratory birds.

5.11.7 *Fish and Wildlife Coordination Act*

The Fish and Wildlife Coordination Act (FWCA) of 1958 requires that federal agencies obtain comments from the US Fish and Wildlife Service (USFWS) and TPWD whenever a project involves impounding, diverting, or deepening a stream channel or other body of water. The Fish and Wildlife Coordination Act does not apply to this project.

5.11.8 *Bald and Golden Eagle Protection Act of 2007*

The Bald and Golden Eagle Protection Act provides for the protection of the Bald Eagle and the Golden Eagle by prohibiting, except under certain specified conditions, the taking, possession, and sale of such birds. Although the proposed project lies within the range of the

Bald Eagle, there is no suitable eagle nesting or roosting habitat within the proposed project area. This project is also not within 660 feet of an active or inactive Bald or Golden Eagle nest. Therefore, no coordination with USFWS is required.

5.11.9 *Magnuson-Stevens Fishery Conservation Management Act*

The Magnuson-Stevens Fishery Conservation Management Act (MSA) requires that essential fish habitat be identified for all federally managed fisheries. The project area is not located in a county with tidally influenced waters; therefore, the Essential Fish Habitat (EFH)/MSA does not apply

5.11.10 *Marine Mammal Protection Act*

The Marine Mammal Protection Act was enacted to protect populations of marine mammals. The project area is not near the Texas Gulf Coast and does not contain suitable habitat for marine mammals; therefore, coordination with the National Marine Fisheries Service or USFWS under the Marine Mammal Protection Act is not required.

5.11.11 *Threatened, Endangered, and Candidate Species*

No suitable or critical habitat for any federally-listed threatened or endangered species potentially affected by transportation projects occurs within the project area. Therefore, no effect on federally listed species would result from the Build or the No Build Alternative. Consultation with the USFWS would not be required.

The proposed project is within range of, has suitable habitat for, and may impact the Texas horned lizard *(Phrynosoma cornutum)*, which is a state-listed threatened species. The species was not observed during site visits, April 15-16, 2019.

The proposed project is within range of, has suitable habitat for, and may impact the following SGCNs:

- Woodhouse's toad *(Anaxyrus woodhousii*),
- western burrowing owl *(Athene cunicularia hypugaea)*,
- thirteen-lined ground squirrel *(Ictidomys tridecemlineatus)*,
- prairie vole *(Microtus ochrogaster taylori)*,
- American badger *(Taxidea taxus)*,
- swift fox *(Vulpes velox),*
- western rattlesnake *(Crotalus viridis)*,
- western hognose snake *(Heterodon nasicus),*
- massasauga *(Sistrurus tergeminus),* and
- western box turtle *(Terrapene ornata*).

None of the species were observed during site visits on April 15-16, 2019.

BMPs per the TxDOT-TPWD BMP Programmatic Agreement and TxDOT-TPWD coordination will be utilized to minimize or avoid impacts to state-listed threatened species and SGCNs. In addition to the species that may be impacted, TPWD recommended implementing BMPs for black-tailed prairie dogs and cave myotis bats. TxDOT agreed with these recommendations and will include these commitments on the Environmental, Permits, Issues and Commitments (EPIC) sheet for the proposed project. Specific BMPs are outlined in **Section 8.2.7, Protection of Rare, Threatened or Endangered Species**.

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

5.12 Air Quality

5.12.1 *Transportation Conformity*

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

5.12.2 *Carbon Monoxide Traffic Air Quality Analysis*

Traffic data for the estimated time of completion year 2025 and design year 2045 are 14,900 vehicles per day and 22,330 vehicles per day, respectively, for the proposed Build Alternative. A prior TxDOT modeling study and previous analyses of similar projects demonstrated that it is unlikely that the carbon monoxide (CO) standard would ever be exceeded as a result of any project with an 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.

5.12.3 *Mobile Source Air Toxics (MSAT)*

Since the proposed project's forecast design year AADT is less than 140,000 vehicles per day, the project would not affect a major intermodal facility, and no known public concern has been raised regarding mobile source air toxics (MSAT) emissions associated with the project, a quantitative MSAT analysis is not required for this project. Consequently, a qualitative analysis has been prepared. This qualitative MSAT assessment acknowledges that the Build Alternative may result in increased exposure to MSAT emissions in certain locations, although the concentrations and duration of exposures are uncertain, and because of this uncertainty, the health effects from these emissions cannot be estimated. MSAT emissions would be lower under the No Build Alternative. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today. The

Air Quality Resources Technical Report, which details this MSAT qualitative analysis, is on file and available for review at the TxDOT Amarillo District office.

5.12.4 *Congestion Management Process*

This project is within an attainment or unclassifiable area for ozone and CO; therefore, a project-level congestion management process analysis is not required.

5.12.5 *Air Quality Construction Emissions Reduction Strategies*

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 PM 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 on TCEQ's TERP webpage at: http://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.

5.13 Hazardous Materials

A **Hazardous Materials Initial Site Assessment (ISA)**, based on a visual survey of the project limits and surrounding area, research of existing and previous land use, and limited review of federal and state regulatory databases, was performed in accordance with TxDOT's *Environmental Handbook for Hazardous Materials*. The purpose of the **ISA** is to identify possible hazardous materials within the proposed project limits. Documentation of the **ISA** is on file and available for review at the TxDOT Amarillo District office.

Land uses within the proposed project limits include light commercial (retail), residential, utility (pipelines and power lines), floodplains and flood control, and undeveloped/ranchland. No surface evidence of contamination was observed within the proposed project limits or from adjacent and surrounding properties. Approximately 100 acres of vacant land would be acquired throughout the project limits. No permanent easements would be acquired.

A regulatory database search was conducted on February 27, 2019. A complete list of the regulatory databases reviewed and the registered or regulated sites identified in that search are included in the **ISA**. A map identifying sites of potential concern adjacent to or near the project ROW is provided in **Appendix F, Map 6**.

There are two registered petroleum storage tank (RPST) sites located on property adjacent to the proposed project ROW. Neither registered facility is listed as a leaking petroleum storage tank site. No ROW would be acquired from this property. The site visit and research into historical land use did not reveal any other abandoned and/or active gasoline service stations located adjacent to the proposed project. **Appendix F, Map 6** indicates the locations of the RPST sites. No further investigation of these sites appears necessary.

Along with the two RPST sites described above, five listed non-RPST sites are located in an approximately 80-acre petroleum fuel and distribution complex at 4200-4300 Cliffside Drive, northwest of the SL 335 (St. Francis St.)/FM 1719 (Western Ave.) junction. These seven listed sites plus three additional sites in other locations are summarized in **Table 5**. No further investigation of these sites appears necessary and the risk of encountering contamination during proposed project construction is low. Additional detail is provided in the **ISA**.

Table 5. Summary of Hazardous Materials Database Search and Site Concerns

Site Information	Database	Distance from Project	Site Resolution	Contamination Risk
Diamond Shamrock Corp. St. Francis & Western St., Amarillo TX 79173 GeoSearch Map ID #3	SEMSARCH	0.14 mi.	Resolved	Low
Amarillo Refined Products Terminal 4200 Cliffside Rd., Amarillo TX 79124 GeoSearch Map ID #3	RCRAC	0.14 mi.	Resolved	Low
Phillips Pipeline Co. Loop 335 (St. Francis) & N. Western St., Amarillo TX 79124 GeoSearch Map ID #4	ERNS	0.24 mi.	Resolved	Low
Diamond Shamrock Amarillo Terminal 4200 Cliffside Rd., Amarillo TX 79124 GeoSearch Map ID #3	IHWCA	0.14 mi.	Resolved	Low
Phillips Pipeline Amarillo Terminal 4300 Cliffside Rd., Amarillo TX 79124 GeoSearch Map ID #4	IHWCA	0.24 mi.	Resolved	Low
Northwest Texas Healthcare System Inc. 1501 S. Coulter St., Amarillo TX 79106 GeoSearch Map ID #5	IHWCA	0.99 mi.	Resolved	Low
Diamond Shamrock Amarillo Terminal 4200 Cliffside Rd., Amarillo TX 79124 GeoSearch Map ID #3	RPST	0.14 mi.	No Issue	Low
Phillips Pipeline Amarillo Terminal 4300 Cliffside Rd., Amarillo TX 79124 GeoSearch Map ID #4	RPST	0.24 mi.	No Issue	Low
Holmes Construction 1501 N. Soncy Rd., Amarillo TX 79124 GeoSearch Map ID #1	RCRANG	ROW	No issue	Low

Site Information	Database	Distance from Project	Site Resolution	Contamination Risk
Landfill/dump site, south side SL 335 between FM 1061 and Coulter Rd. No GeoSearch Map ID	Not listed	Adjacent	Resolved	Low

SEMSARCH: Superfund Enterprise Management System Archived Site Inventory
RCRAC: Resource Conservation and Recovery Act – Corrective Action Facility
ERNS: Emergency Response Notification System
IHWCA: Industrial Hazardous Waste Corrective Action
RPST: Registered Petroleum Storage Tank
RCRANG: Resource Conservation and Recovery Act – Non-generator

At this time, utility adjustment requirements have not been determined. Contamination could potentially be encountered during utility adjustments. Coordination with utility companies concerning contamination would be addressed during the ROW stage of project development. It is anticipated that all utility adjustments or relocation would be completed prior to construction.

Any unanticipated hazardous materials encountered during construction would be handled according to applicable federal and state regulations per TxDOT Standard Specifications. Section 6.10 of the General Provisions of the Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges, which applies to all TxDOT highway projects, includes guidelines addressing the contractor's responsibilities regarding the discovery of hazardous materials during construction.

No exposure to contamination from hazardous materials would result from the No Build Alternative.

5.14 Traffic Noise

A traffic noise analysis was prepared in accordance with TxDOT's (FHWA-approved) *Guidelines for the Analysis and Abatement of Roadway Traffic Noise* (2011). The **Traffic Noise Analysis Technical Report** (2020), which includes details about the analysis, is available for public review at the TxDOT Amarillo District office.

Existing and predicted traffic noise levels were modeled at representative land use activity areas (receptors) adjacent to the project that might be impacted by traffic noise and would potentially benefit from feasible and reasonable noise abatement.

Table 6. Modeled Traffic Noise Levels

Representative Receiver	NAC Category	NAC Level	Existing (2019) dBA Leq(h)	Build Alternative (2045) Leq(h)	Change (+/-)	Build Alternative Impact (Yes/No)
R1 – Single-family Residential	B	67	44	48	+4	No

Representative Receiver	NAC Category	NAC Level	Existing (2019) dBA Leq(h)	Build Alternative (2045) Leq(h)	Change (+/-)	Build Alternative Impact (Yes/No)
R2 – Single-family Residential	B	67	43	46	+3	No
R3 – Single-family Residential	B	67	43	46	+3	No
R4 – Single-family Residential	B	67	43	45	+2	No
R5 – Single-family Residential	B	67	44	46	+2	No
R6 – Nature Center	C	67	55	57	+2	No
R7 – Single-family Residential	B	67	44	46	+2	No
R8 – Single-family Residential	B	67	63	63	0	No
R9 – Single-family Residential	B	67	59	59	0	No
R10 – Single-family Residential	B	67	55	56	+1	No
R11 – Single-family Residential	B	67	53	52	-1	No
R12 – Single-family Residential	B	67	56	55	-1	No
R13 – Single-family Residential	B	67	59	58	-1	No
R14 – Single-family Residential	B	67	54	55	+1	No
R15 – Single-family Residential	B	67	52	53	+1	No
R16 – Single-family Residential	B	67	59	60	+1	No

Modeled noise-sensitive locations were primarily residential, but also included a privately-owned nature center. The traffic noise analysis determined that out of 16 representative receptors, none were predicted to have noise levels that approach or exceed the FHWA noise abatement criteria or that substantially exceed the existing noise levels; therefore, the proposed project would not result in traffic noise impacts (see **Appendix F, Map 7**).

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, that no new activities are planned or constructed along or within the following predicted (2045) noise impact contours.

Table 7. Noise Contours

Limits	Land Use NAC Category	Impact Contour	Distance from Proposed ROW Line
SW 9th Avenue to RM 1061	B and C	66 dB(A)	40 feet
	E	71 dB(A)	Within ROW
RM 1061 to FM 1719	B and C	66 dB(A)	100 feet
	E	71 dB(A)	Within ROW

Construction noise impacts are discussed in **Section 5.17, Construction Phase Impacts**.

A copy of this traffic noise analysis will be available to local officials to assist in future land use planning. 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, the proposed project would not be constructed. If the No Build Alternative were implemented, traffic noise levels would be expected to increase with an associated future increase in traffic volumes.

5.15 Induced Growth

An induced growth impact analysis was conducted for the proposed project using TxDOT's six-step process as outlined in TxDOT's *Indirect Impacts Analysis Guidance* (2019). An **Induced Growth Analysis** technical report has been prepared, which is summarized below, and is on file and available for review at the TxDOT Amarillo District.

The Amarillo Comprehensive Plan identifies several anticipated growth patterns for the greater Amarillo area. The plan notes that the Harrington Regional Medical Center area located near the southeast quadrant of Segment C-1 is anticipated to remain a mainstay of economic employment for the region. As the center grows, ancillary development such as restaurants, hotels, and other industries that could service the center would also be anticipated to grow.

Based on the population and employment projections, the City of Amarillo as well as Randall County are anticipated to continue slow growth, while Potter County may experience a slight decrease in population growth. Employment is likely to grow based on growth in existing sectors and new employers coming to the region such as the new veterinary school. Based on projections, the AOI is likely to experience land use conversion from agricultural, ranching, and vacant land uses to residential and commercial land uses. Conversion from vacant land uses

to residential land uses is currently speculated for several large parcels located adjacent to the proposed project to the east and west.

The potentially developable locations shown in Figure 2 were analyzed to determine the likelihood of the proposed project causing induced growth. Within the AOI, the most limiting factor to growth is the lack of city utility services, such as water and sewer access, outside of city limits and the extraterritorial jurisdiction (ETJ). The Amarillo Comprehensive Plan notes that one of the city's policies is to "promote a contiguous and planned urban form by using utility service to guide growth in a logical and cost efficient pattern" (Amarillo 2016). Utility plans for the city were not readily available, but locations not within or adjacent to city/ETJ limits and without surrounding existing development were considered to have no to low potential for inducing development since it would not fulfill the policy to have contiguous development and because Potter County is projected to experience reductions in population.

Areas to the southwest portion of the AOI have a high likelihood of development, but the likelihood is related to the growth in the Amarillo region occurring in the southwest of the area closer to Randall County. According to the Amarillo Metropolitan Planning Organization's 2015 – 2040 Metropolitan Transportation Plan, southwest Amarillo and encompassing portions of Randall County are the only areas within the region that are experiencing growth. The proximity of this area to growing employment centers such as the medical center also makes it attractive for growth. The proposed project could accelerate growth in the area through the safety and mobility benefits, but induced growth in this area may be more likely due to the improvements being constructed for SL 335 Segment B-2.

The areas in the east of the AOI have the potential for development because they are within city limits, and near existing development including subdivisions and commercial development. Development in this area would be likely to occur with or without the proposed project. The proximity of this area to major roadways (e.g. US 87 and West Amarillo Boulevard) reduce the likelihood of the proposed project accelerating potential development.

In general, the proposed project could slightly accelerate planned and potential development through travel time and safety benefits of the improvements, but it would be unlikely to be the sole source of development. Factors pushing this growth, such as the new veterinary school and growing medical center, are likely to have a greater impact on development than the proposed project.

Impacts due to induced growth would include land use conversion, wildlife and vegetation destruction and fragmentation, increased water pollution due to increased impervious surfaces, and other water, air quality, and wildlife degradation due to development.

5.16 Cumulative Impacts

A cumulative impact analysis was conducted for the proposed project using TxDOT's five-step process as outlined in TxDOT's *Cumulative Impacts Analysis Guidance* (2019). A **Cumulative**

Impact Analysis technical report has been prepared, which is summarized below, and is on file and available for review at the TxDOT Amarillo District.

Based on review of the direct and indirect impacts of the proposed project, the cumulative impacts analysis examined the potential cumulative impacts to biological resources per TxDOT guidance. Biological resources subject to direct, indirect and potential cumulative impacts include prime farmland soils, vegetation, and state-protected species. These impacts are discussed in **Section 5.11, Biological Resources**. Biological resources were also determined to be in poor or declining health due to increasing urbanization and past industrial and commercial activities.

The resource study area (RSA) for biological resources was determined to be the area bound by the four watersheds encompassing the proposed SL 335 C-1 project and the entire SL 335 existing facility. The RSA includes the West Amarillo Creek-Canadian River, East Amarillo Creek-Canadian River, Upper McClellan Creek, and Headwaters Prairie Dog Town Fork Red River watersheds. The RSA is mapped in **Appendix F, Map 9**.

The temporal RSA, which is the timeframe in which effects on resources are reviewed, is from 1940 to 2040. The year 2045 was selected because it is the planning year for the Amarillo MPO's most recent MTP at the time of analysis, and 1940 was chosen because this is the approximate time that Amarillo Army Air Base, a major employment center at the time, was established.

Other actions in the RSA potentially affecting biological resources include: the opening and closing of the Amarillo Army Air Base, construction of Harrington Regional Medical Center, and construction of SL 335, in the past; the present expansion of SL 335 Segment B-2; and foreseeable future actions that include higher education campus expansions, medical center expansions, continued expansion of SL 335, and a future east-west city roadway approximately one mile north of SW 9th Ave. The growth and development represented by past and present actions have resulted in impacts to biological resources that include:

- Destruction and fragmentation of vegetation, wildlife habitat, and vegetation;
- Destruction of aquatic vegetation with the manipulation of playa lakes, wetlands, and streams;
- Reduction in air, water, and habitat quality due to pollution; and
- Increased storm water runoff and water pollution due to increases in impervious cover.

In assessing the potential impacts of reasonably foreseeable actions, regional trends are anticipated to result in slow net growth within the RSA for the foreseeable future. Based on the effects of past regionally-driven growth in the RSA, future development is expected to degrade biological resources. Planned and anticipated development, such as the new veterinary school and anticipated subdivisions along the proposed project, could spur more growth in ancillary services (such as restaurants) and additional residential development.

Table 8. Anticipated Cumulative Impacts

Actions	Past Action	Present Action	Foreseeable Future Action	Cumulative Impact
	All Existing Development[1]	SL 335, C-1 Direct and Indirect/Induced Impacts[2, 3]	-SL 335 and East-West City Road Expansions -Higher Education Expansions[4] -Medical Center Expansions[5]	Past + Present + Foreseeable Future Actions
Acreage	218,528	10,586	2,405	231,519
Percentage of RSA	22%	1%	0.2%	23%

Source: [1]OpenStreet Maps Texas Database (2020); [2]SL 335 C-1 Environmental Assessment; [3]SL 335 C-1 Induced Growth Analysis Report; [4]Texas Tech University, West Texas A&M University; [5]Locations surrounding existing facilities

Based on the Table 8, approximately 23 percent of the RSA could be considered cumulatively impacted by the proposed project. Due to the low percentage of the RSA that could be considered impacted, the cumulative impact of the proposed project would not be considered substantial.

The impacts to prime farmland soils, vegetation, and wildlife are still occurring and are anticipated to continue based on population and employment projections. Relevant to these impacts, the City of Amarillo has policies for land use, planning, zoning, preservation of biological resources, and mitigation techniques for impacts such as increased impervious cover.

As noted in the **Induced Growth Analysis** report, the proposed project has the potential to slightly accelerate growth. Based on growth projections, planned developments, city planning and zoning policies, and the project's minimal potential to induce growth, the proposed project could be anticipated to have minimal cumulative impacts to biological resources within the RSA. Specifically, approximately 23 percent of the RSA could be considered cumulatively impacted by the proposed project. Due to the low percentage of the RSA that could be considered impacted, the cumulative impact of the proposed project would not be considered substantial.

5.17 Construction Phase Impacts

The construction phase of the proposed project is anticipated to be approximately three years in duration. Project construction would occur within the existing SL 335 ROW and easements and the proposed 100 acres of additional ROW.

No detours or road closures are anticipated since construction would be phased to ensure that adequate lane capacity would remain open to accommodate traffic in both directions. Consequently, economic impacts to local businesses associated with roadway access during construction are not anticipated. The expenditures of contractors and employees during the project's construction phase would be expected to benefit the local economy.

Storm water impacts during construction of the proposed project would be addressed by the project's SW3P, as required under the CGP authorized by TCEQ. As noted previously, a construction site notice posted on the construction site and a notice of intent would be required with the SW3P (see **Section 5.10.6, Clean Water Act, Section 402**).

Required clearing or other construction-related activities could directly and/or indirectly affect animals that reside on or adjacent to the project area. Heavy machinery could kill small, low-mobility animals such as mice, rats, lizards, and snakes or could cause soil compaction, impacting animals that live underground. Larger, more mobile species would typically avoid construction activities and move into adjacent areas. To minimize disturbance to inert microhabitats (e.g., snags, brush piles), clearing within the ROW would be minimized to the extent practicable.

Any unanticipated hazardous materials encountered during construction would be handled according to applicable federal and state regulations per TxDOT Standard Specifications (see **Section 5.13, Hazardous Materials**).

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 tolerable. None of the receivers 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.

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 particulate matter from diesel powered construction equipment and vehicles. The potential impacts of PM emissions will be minimized by using fugitive dust control measures contained in standard specifications, as appropriate. Considering the temporary and transient nature of construction-related emissions, as well as the mitigation actions to be utilized including compliance with applicable regulatory requirements, it is not anticipated that emissions from construction of this project will have a significant impact on air quality in the area.

6.0 Agency Coordination

On November 28, 2019, TxDOT concluded consultation with federally-recognized tribes whose areas of interest encompass the proposed project. TxDOT received no comments regarding the proposed project from tribes.

The **Archeological Survey Report** was submitted to the SHPO for review and, on October 24, 2019, the SHPO concurred with the report's findings. Regarding non-archeological historic resources, TxDOT historians determined that project activities pose no adverse effect to historic properties and that individual coordination with the SHPO is not required, per memorandum signed January 28, 2020.

TxDOT completed early coordination with TPWD on November 11, 2019. TPWD recommended BMPs for the following species:

- Woodhouse's toad,
- black-tailed prairie dog,
- thirteen-lined ground squirrel,
- cave myotis bat,
- prairie vole,
- American badger,
- western rattlesnake,
- western hognose snake,
- massasauga, and
- western box turtle.

TxDOT agreed with the recommended BMPs, which will be included in the EPIC sheet and are outlined in **Section 8.2, Contractor Communications**.

TxDOT will provide Notice of Availability of the draft EA to TCEQ for review and comment.

Written coordination exchanges are included in **Appendix G, Resource Agency Coordination**.

7.0 Public Involvement

A public meeting was held on May 21, 2019, at the Church at Quail Creek, 801 Tascosa Road, in Amarillo. The meeting was held from 6 p.m. to 8 p.m. and consisted of a presentation and open house where the public could ask questions of project team members. A total of 55 people attended the meeting, including 31 members of the public, 22 project team members, and two media representatives. No elected or public officials were in attendance.

During the comment period from May 21, 2019 to June 5, 2019, 10 comments were received from eight people. Comments included concerns about roadway access, bicycle and pedestrian provisions, retaining wall placement, traffic control, and locations outside the project limits.

TxDOT responded to all comments received during the 15-day comment period and explained that project design is not final and would be further refined as the project continues. The comments were considered for incorporation in the proposed project's development where feasible. Public meeting documentation is available for review at the TxDOT Amarillo District office. A public hearing is currently planned for June 2020.

8.0 Post-Environmental Clearance Activities and Design/Construction Commitments

8.1 Post-Environmental Clearance Activities

8.1.1 *USACE Section 404 Permit*

The placement of temporary or permanent dredge or fill material into potentially jurisdictional waters (tributaries to West Amarillo Creek) would be authorized under USACE Section 404 NWP 14 for Linear Transportation Projects with no requirement for PCN (see **Section 5.10.1, Clean Water Act, Section 404**).

8.1.2 *Section 401 Water Quality Certification*

Since NWP 14 would be necessary, construction activities would require compliance with TCEQ's Water Quality Certification Program. The Section 401 Certification requirements for NWP 14 would be met by implementing BMPs from the TCEQ Section 401 Water Quality Certification Conditions for NWPs (see **Section 5.10.2, Clean Water Act, Section 401**). This activity is anticipated to be complete prior to construction.

8.1.3 *TPDES Construction General Permit*

Since the proposed project would be considered a large construction activity under TCEQ's TPDES Construction General Permit (CGP), TxDOT is required to comply with the CGP terms. During the final design phase of project development, a SW3P would be developed and implemented, a construction site notice would be posted on the construction site, and a notice of intent would be required and filed with TCEQ prior to construction. The notice of intent would be submitted to the City of Amarillo and Potter County as operators of the local MS4s and TxDOT will comply with MS4 permit requirements. The SW3P would identify a system of temporary BMPs to be employed during construction to mitigate construction-related water quality impacts. Temporary erosion controls would be installed, per the construction plans, prior to commencement of construction. Controls would be subject to regular inspections and replaced or maintained as needed (see **Section 5.10.6, Clean Water Act, Section 402**).

8.1.4 *Floodplain Coordination*

The proposed project involves construction in floodplains of the West Amarillo Creek tributaries. TxDOT will notify the local floodplain administrator as necessary and comply with all applicable rules and regulations regarding the hydraulic design of the project (see **Section 5.10.7, Floodplains**). This activity is anticipated to be complete prior to construction.

8.1.5 *Utility Coordination*

At this time, utility adjustment requirements have not been determined. Utilities displaced by the project would be relocated within the existing ROW. Coordination with utility owners will take place during the detailed design phase. There is a potential for contamination to be encountered during utility adjustments. Coordination with utility companies concerning this contamination would be addressed during the ROW stage of project development. It is anticipated that all utility adjustments or relocation would be completed prior to construction (see **Section 5.13, Hazardous Materials**).

8.2 Design/Construction Commitments

8.2.1 *Vegetation Impact Avoidance*

Impacts to vegetation would be avoided or minimized by limiting disturbance to only that which is necessary to construct the proposed project (see **Section 5.11.2, Impacts to Vegetation**). The following BMPs would be implemented for the proposed project:

- Minimize the amount of vegetation cleared. Removal of native vegetation, particularly mature native trees and shrubs should be avoided to the greatest extent practicable. Wherever practicable, impacted vegetation should be replaced with in-kind on-site replacement/restoration of native vegetation.
- The use of any non-native vegetation in landscaping and revegetation is discouraged. Locally adapted native species should be used.
- The use of seed mix that contains seeds from only locally adapted native species is recommended.
- Avoid vegetation clearing activities during the general bird nesting season, March through August, to minimize adverse impacts to birds.

8.2.2 *Protection of Wildlife*

In order to minimize disturbance to inert microhabitats (e.g., snags, brush piles), clearing within the ROW during project construction would be minimized to the extent practicable.

In addition to BMPs required for a TCEQ SW3P (**Section 8.1.3**), Section 401 water quality certification (**Section 8.1.2**), and rare, threatened and endangered species (**Section 8.2.4**), the following water quality BMPs will be implemented for the protection of wildlife and habitat:

- 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, consistent with NWP 14 requirements.

8.2.3 *Migratory Bird Protection*

This project will comply with applicable provisions of the MBTA and Texas Parks and Wildlife Code Title 5, Subtitle B, Chapter 64, Birds. While no impact to migratory birds is expected, removal and destruction of active bird nests will be avoided except through federal or state approved options. In addition, where appropriate and practicable, measures will be implemented to prevent or discourage birds from building nests on man-made structures within portions of the project area planned for construction, and vegetation clearing and ground disturbance activities will be scheduled outside the typical nesting season. Specifically, in the event that migratory birds are encountered on site during project construction, adverse impacts on protected birds, active nests, eggs, and/or young will be avoided. The contractor will remove all old migratory bird nests from September 1 to March 31 from any structure where work will be done. In addition, the contractor will be prepared to prevent migratory birds from building nests between April 1 and August 31 (see **Section 5.11.6**).

8.2.4 *Protection of Rare, Threatened and Endangered Species*

No suitable habitat was observed for any federally listed threatened or endangered species. However, measures to avoid harm to any threatened or endangered species would be taken should they be observed during construction of the proposed project (see **Section 5.11.11, Threatened, Endangered and Candidate Species**).

BMPs will be implemented by the proposed project to avoid or minimize impacts to these state-listed threatened species and SGCNs:

<u>BMPs for Species that Did Not Require TPWD Coordination</u>

Bird BMPs

In addition to complying with the MBTA, perform the following BMPs:

a. Do not disturb, destroy, or remove active nests, including ground nesting birds, during the nesting season.
b. Avoid the removal of unoccupied, inactive nests, as practicable.

c. Do not collect, capture, relocate, or transport birds, eggs, young, or active nests without a permit.

General BMP (swift fox, American badger, thirteen-lined ground squirrel, prairie vole, and cave myotis bat)

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.

Terrestrial Reptile BMPs (Texas horned lizard, western rattlesnake, western hognose snake, massasauga, and western box turtle))

a. Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
b. 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.
c. Inform contractors that if reptiles are found on the project site, allow them to safely leave the project area.

Amphibian and Aquatic Reptile BMPs (Woodhouse's toad)

a. Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.
b. Use drill seeding, hydromulching, or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If erosion control blankets are needed, use types that contain no plastic netting or only loosely woven natural fiber
c. Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features
d. When work is directly adjacent to the water, minimize impacts to shoreline basking sites and overwinter sites where feasible
e. Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may contain terrestrial amphibians, where feasible

If any state-listed endangered species, threatened species, or SGCN on the Potter County list is sighted in the project area during construction, stop construction and notify the Area Engineer.

County lists of federally listed and state-listed threatened and endangered species are included with the **Biological Evaluation**, on file and available for review at the TxDOT Amarillo District offices.

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.

10.0 References

Amarillo Metropolitan Planning Organization (MPO). Loop 335 Corridor Development Study. 2014.

Amarillo MPO. Amarillo Metropolitan Transportation Plan 2020-2045. 2019. https://www.amarillo.gov/home/showdocument?id=1442

City of Amarillo. Comprehensive Land Use Plan. 2010. https://www.amarillo.gov/home/showdocument?id=4386

City of Amarillo. Zoning Ordinance. 2019. https://library.municode.com/tx/amarillo/codes/code_of_ordinances?nodeId=CO_TITIVBUCODEZO_CH4-10ZO

Federal Emergency Management Agency (FEMA). Federal Insurance Rate Map panels 48375C0368C, 48375C0369C, 48375C0504C, 48375C0505C, and 48375C0510C. 2010. https://msc.fema.gov/ (accessed 2019)

Texas Demographic Center. 2018 Texas Population Projections Data Tool Results. November 2018. https://demographics.texas.gov/data/TPEPP/Projections/ (accessed 2019)

Texas Department of Transportation (TxDOT). 2018 District Traffic Web Viewer. http://txdot.maps.arcgis.com/apps/webappviewer/index.html?id=75e148d784554d99bea6e8602986bfd2 (accessed 2020)

TxDOT. Texas Freight Mobility Plan 2018. http://ftp.dot.state.tx.us/pub/txdot/move-texas-freight/studies/freight-mobility/2018/plan.pdf

Texas Historical Commission (THC). Texas Historic Sites Atlas. https://atlas.thc.state.tx.us/Map (accessed 2019)

THC and Texas Archeological Research Laboratory. Texas Archeological Sites Atlas Data Sets. (accessed 2019)

Texas Water Development Board. Groundwater Data Viewer. Water Data Interactive. https://www3.twdb.texas.gov/apps/waterdatainteractive/groundwaterdataviewer (accessed 2019)

US Census Bureau. Census 2000, Summary File 1. 2001. https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed 2019)

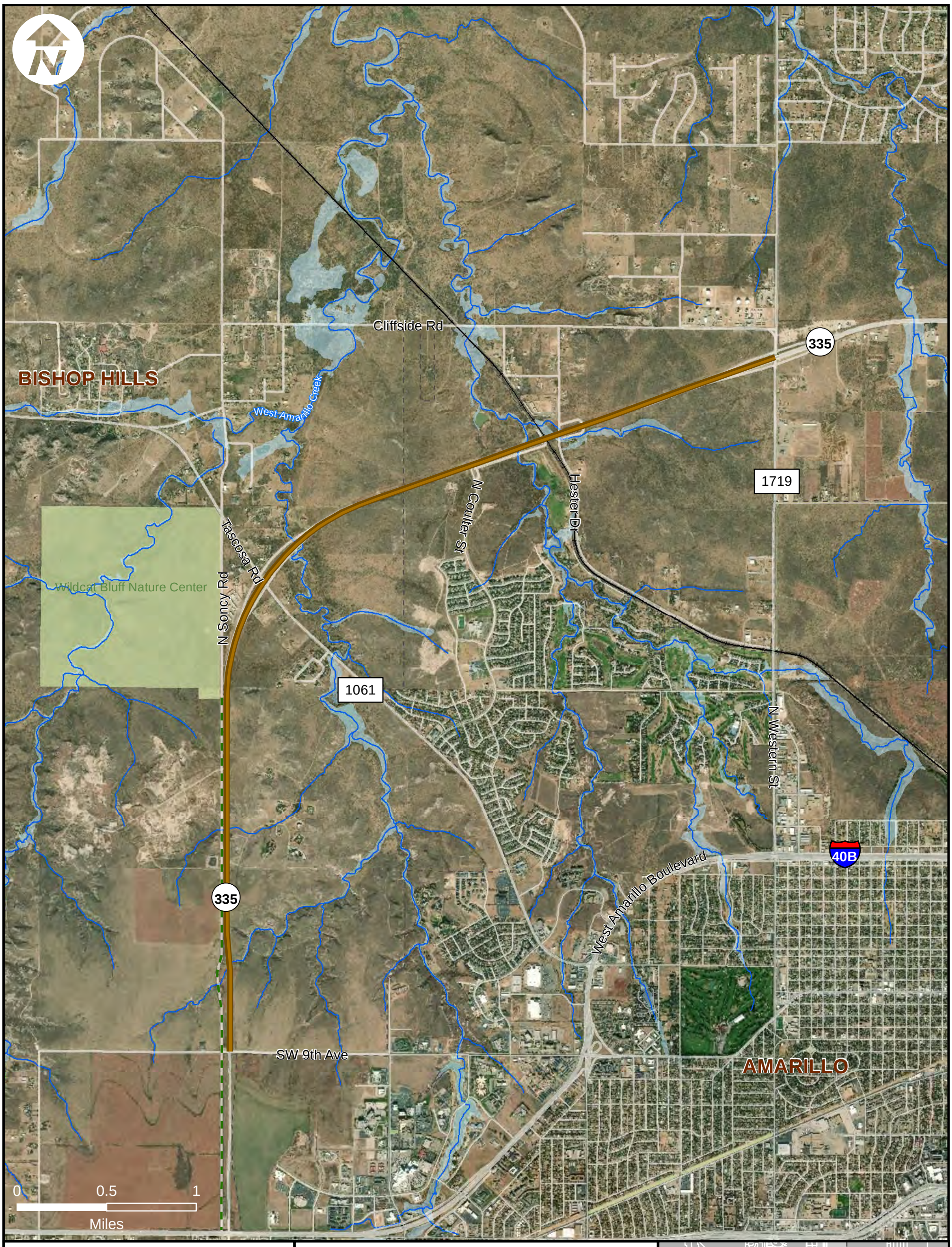
US Census Bureau. 2010 Census, Summary File 1. 2011. https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed 2019)

US Census Bureau. 2013-2017 American Community Survey 5-year Estimates. 2018. https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed 2019)

US Census Bureau. 2018 Population Estimates. https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t (accessed 2020)

Appendix A

Project Location Map



Proposed Project

Old Soncy Trail

Waterbody

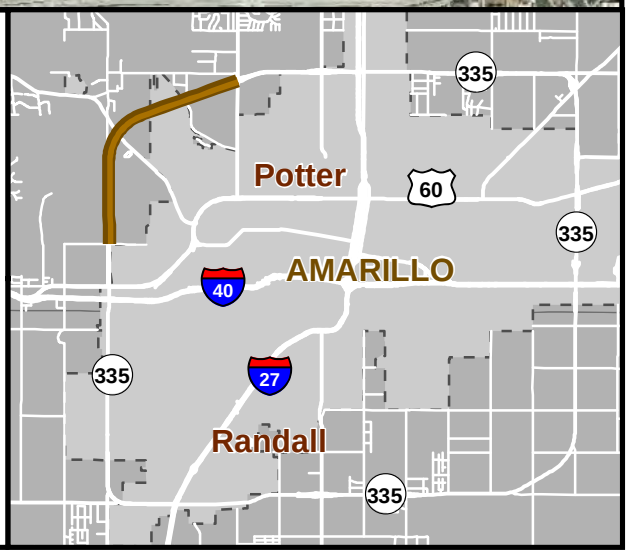
100-Year Floodplain

City Limit

State Loop 335
Segment C-1

Project Location Map

CSJ 2635-04-034



Appendix B

Project Photographs

State Loop 335 Segment C-1
Existing Roadway Photographs

Photo 1. Overview of SL 335 and SW 9th Avenue intersection, facing east.

Photo 2. Overview of SL 335, just north of drainage near SW 9th Avenue, facing north.

Photo 3. Overview of bridge section over drainage north of SW 9th Avenue, facing south/southeast.

Photo 4. View of residences on Stoneridge Drive from SL 335, facing east.

Photo 5. View of residences on Stoneridge Drive from SL 335, facing east.

Photo 6. View of SL 335 facing northeast from North Soncy Road near the Wildcat Bluff Nature Center.

Photo 7. View towards SL 335 from residences near Coulter Street, facing north/northeast.

Photo 8. View of existing SL 335 overpass from RM 1061, facing northwest.

Photo 9. Overview of SL 335 and RM 1061 intersection, facing southwest.

Photo 10. Overview of western approach to BNSF rail line overpass, facing east.

Photo 11. View of existing bridge over the BNSF rail line from Hester Drive, facing south.

Photo 12. View of existing overpass at FM 1719, facing north. No new overpasses will be constructed at this location.

State Loop 335 Segment C-1
Adjacent Habitat Photographs

Photo 13. High Plains: Floodplain Hardwood Forest observed lining water crossing located north of Tascosa 7Road and SL 335 intersection, facing northeast.

Photo 14. High Plains: Floodplain Herbaceous Vegetation observed at water crossing located west of Hester Drive and SL 335 intersection, facing south.

Photo 15. High Plains: Riparian Herbaceous Vegetation observed near water crossing of unnamed tributary directly north of the Stoneridge Drive and SL 335, facing west.

Photo 16. High Plains: Shortgrass Prairie observed north of intersection between Tascosa Road and SL 335, facing north.

Photo 17. Native Invasive: Mesquite Shrubland observed south of intersection between Tascosa Road and SL 335, facing east.

Photo 18. Rolling Plains: Mixedgrass Prairie observed north of Stoneridge Drive and SL 335 intersection, facing south.

Photo 19. Tributary 1 to West Amarillo Creek, west side of roadway, facing south

Photo 20. Tributary 1 to West Amarillo Creek, east side of roadway, facing east

Photo 21. Tributary 1 to West Amarillo Creek, west side of roadway, facing west

Photo 22. Tributary 2 to West Amarillo Creek, west side of roadway, facing south

Photo 23. Tributary 2 to West Amarillo Creek, west side of roadway, facing west

Photo 24. Tributary 2 to West Amarillo Creek, east side of roadway, facing east

Photo 25. Tributary 3 to West Amarillo Creek, east side of roadway, facing northwest

Photo 26. Tributary 3 to West Amarillo Creek, east side of roadway, facing east

Photo 27. Tributary 3 to West Amarillo Creek, in-stream vegetation between conspans, facing west

Photo 28. Tributary 3 to West Amarillo Creek, under the SL 335 main lanes, facing east

Photo 29. Tributary 3 to West Amarillo Creek, at the SL 335 southbound ramp, facing east

Photo 30. Tributary 4 to West Amarillo Creek, west side of roadway, facing northeast

Photo 31. Tributary 4 to West Amarillo Creek, east side of roadway, facing east

Photo 32. Tributary 4 to West Amarillo Creek, west side of roadway, facing west

Photo 33. Tributary 5 to West Amarillo Creek, east side of roadway, facing northeast

Photo 34. Tributary 5 to West Amarillo Creek, east side of roadway, facing southeast

Photo 35. Tributary 5 to West Amarillo Creek, east side of roadway, facing northeast

Photo 36. Tributary 5 to West Amarillo Creek, east side of roadway, facing southwest

State Loop 335 Segment C-1
Land Use Photographs

Photo 37. Overview of petroleum pipeline terminal complex northwest of SL 335 and FM 1719 intersection, facing northeast

Photo 38. Overview of petroleum pipeline terminal complex northwest of SL 335 and FM 1719 intersection, facing north.

Photo 39. Overview of active quarry site northeast of SL 335 and FM 1719, facing east

Photo 40. Overview of landfill/dump site west of Coulter Drive, facing west/northwest from Coulter Street

Appendix C

Schematics

SCHEMATIC ROLL 1 OF 3

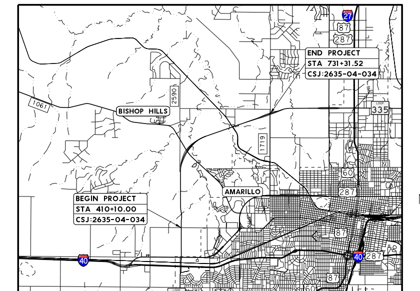
TEXAS DEPARTMENT OF TRANSPORTATION

SCHEMATIC LAYOUT
SL 335 SEGMENT C-1
POTTER COUNTY

AMARILLO DISTRICT DESIGN SCHEMATIC

BRIAN CRAWFORD P.E., DISTRICT ENGINEER

IMPROVEMENTS LOCATIONS:
SL 335: SW 9TH AVE. TO FM 1719
CSJ: 2635-04-034
LENGTH: 6.08 MI / 32,122 FT



PROJECT LOCATION MAP

NOT A BIDDING DOCUMENT

KRISTI D. FLAGG, P.E.
P.E. #91780
PROJECT MANAGER

DATE

SUBMITTED FOR APPROVAL FOR FURTHER PROJECT DEVELOPMENT

RECOMMENDED BY ______ RECOMMENDED BY ______

ADVANCED PROJECT DEVELOPMENT DIRECTOR — DISTRICT DESIGN ENGINEER

RECOMMENDED BY ______ APPROVED BY ______

AREA ENGINEER — DIRECTOR, TRANSPORTATION PLANNING & DEVELOPMENT

ROADWAY	DESIGN SPEED	CLASSIFICATION
MAINLANES	55 M.P.H.	URBAN FREEWAY
FRONTAGE ROADS	50 M.P.H.	URBAN COLLECTOR
RAMPS	50 M.P.H.	URBAN FREEWAY

PROPOSED DESIGN STANDARDS (STRUCTURES):	LRFD
PROPOSED DESIGN STANDARDS (ROADWAY):	TxDOT ROADWAY DESIGN MANUAL CHAPTER 3, 4R, SECTION 6 FREEWAYS (APRIL 2018)
PROPOSED DESIGN STANDARDS (TRAFFIC):	TMUTCD & APPLICABLE TRAFFIC STANDARDS
ROAD TYPE:	4-LANE FREEWAY WITH MAINLANES & FRONTAGE ROADS
STATE PLANE ZONE:	4201 - N
SURFACE ADJUSTMENT SCALE FACTOR:	1.000250413
FUNCTIONAL CLASSIFICATION:	URBAN FREEWAY
TERRAIN:	ROLLING
e_{max}:	6%
ADT:	2025 14,760 2045 21,250 2055 26,580

PRELIMINARY
FOR REVIEW ONLY
NOT FOR CONSTRUCTION, BIDDING, OR PERMIT PURPOSES
JMT
TBPE FIRM REG. NO. F-16341
ENGINEER KRISTI D. FLAGG
P.E. NO. 91780 DATE 11/12/2019

HORIZONTAL SCALE: 1"=100' — VERTICAL SCALE: 1"=10'

DESIGN EXCEPTIONS: NONE, DESIGN WAIVERS: NONE, DESIGN VARIANCES: NONE, RAILROAD CROSSINGS: BNSF

JMT
TBPE FIRM REG. NO. F-16341

Texas Department of Transportation
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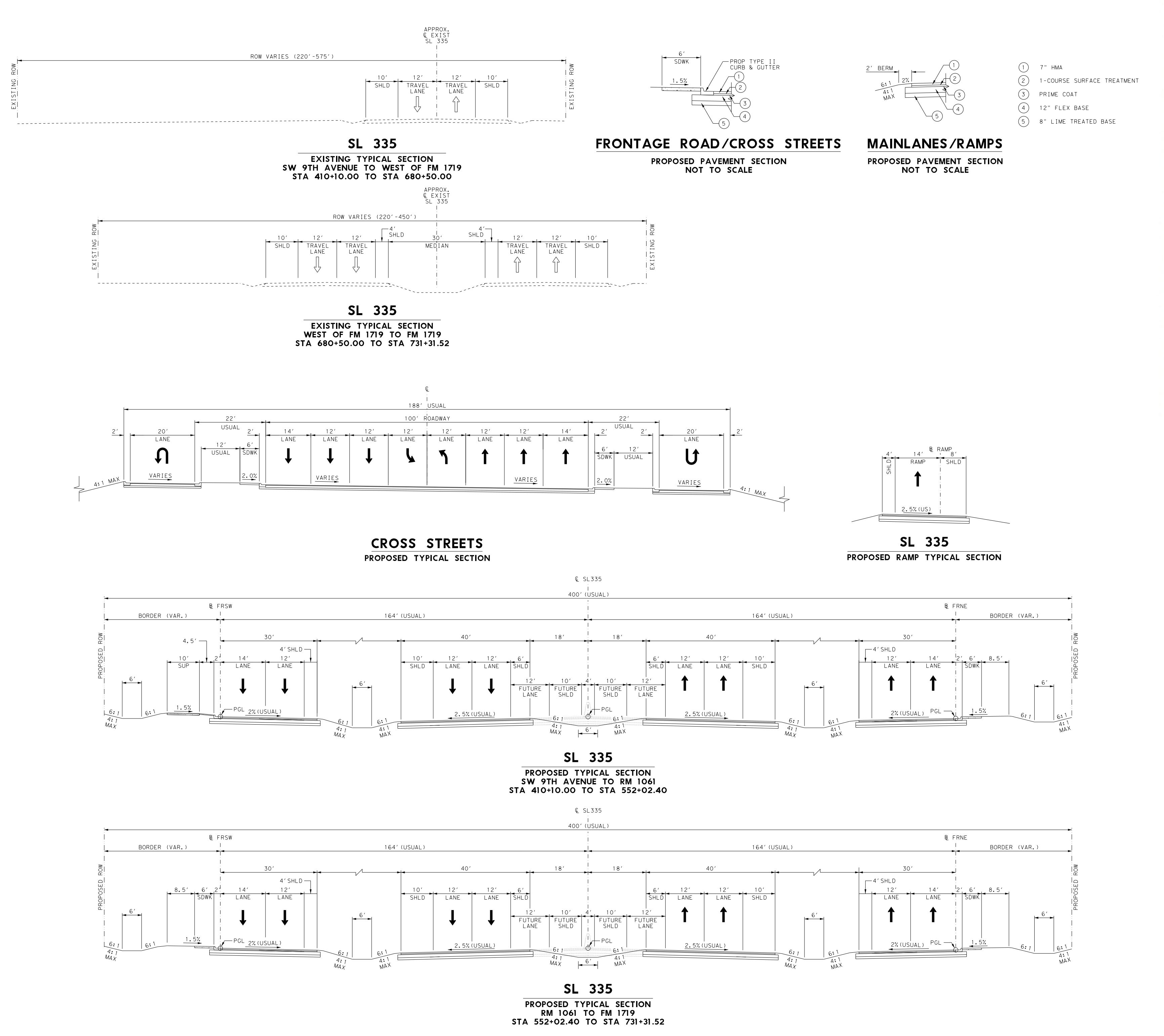

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SCHEMATIC ROLL 2 OF 3

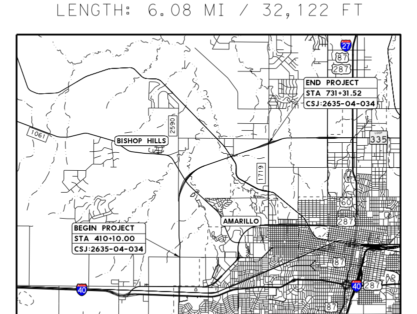
TEXAS DEPARTMENT OF TRANSPORTATION

SCHEMATIC LAYOUT
SL 335 SEGMENT C-1
POTTER COUNTY

AMARILLO DISTRICT DESIGN SCHEMATIC

BRIAN CRAWFORD P.E., DISTRICT ENGINEER

IMPROVEMENTS LOCATIONS:
SL 335: SW 9TH AVE. TO FM 1719
CSJ: 2635-04-034
LENGTH: 6.08 MI / 32,122 FT



PROJECT LOCATION MAP

NOT A BIDDING DOCUMENT

KRISTI D. FLAGG, P.E.
P.E. #91780
PROJECT MANAGER

DATE

SUBMITTED FOR APPROVAL FOR FURTHER PROJECT DEVELOPMENT

RECOMMENDED BY ________ RECOMMENDED BY ________

ADVANCED PROJECT DEVELOPMENT DIRECTOR — DISTRICT DESIGN ENGINEER

RECOMMENDED BY ________ APPROVED BY ________

AREA ENGINEER — DIRECTOR, TRANSPORTATION PLANNING & DEVELOPMENT

ROADWAY	DESIGN SPEED	CLASSIFICATION
MAINLANES	55 M.P.H.	URBAN FREEWAY
FRONTAGE ROADS	50 M.P.H.	URBAN COLLECTOR
RAMPS	50 M.P.H.	URBAN FREEWAY

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PROPOSED DESIGN STANDARDS (ROADWAY):	TxDOT ROADWAY DESIGN MANUAL CHAPTER 3, 4R, SECTION 6 FREEWAYS (APRIL 2018)
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STATE PLANE ZONE:	4201 - N
SURFACE ADJUSTMENT SCALE FACTOR:	1.000250413
FUNCTIONAL CLASSIFICATION:	URBAN FREEWAY
TERRAIN:	ROLLING
e_{max}:	6%
ADT:	2025 14,760; 2045 21,250; 2055 26,580

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JMT
TBPE FIRM REG. NO. F-16341
ENGINEER KRISTI D. FLAGG
P.E. NO. 91780 DATE 11/12/2019

HORIZONTAL SCALE: 1"=100' (50' 0' 100' 200' SCALE IN FEET) VERTICAL SCALE: 1"=10' (5' 0' 10' 20' SCALE IN FEET)

DESIGN EXCEPTIONS: NONE, DESIGN WAIVERS: NONE, DESIGN VARIANCES: NONE, RAILROAD CROSSINGS: BNSF

JMT
TBPE FIRM REG. NO. F-16341

Texas Department of Transportation

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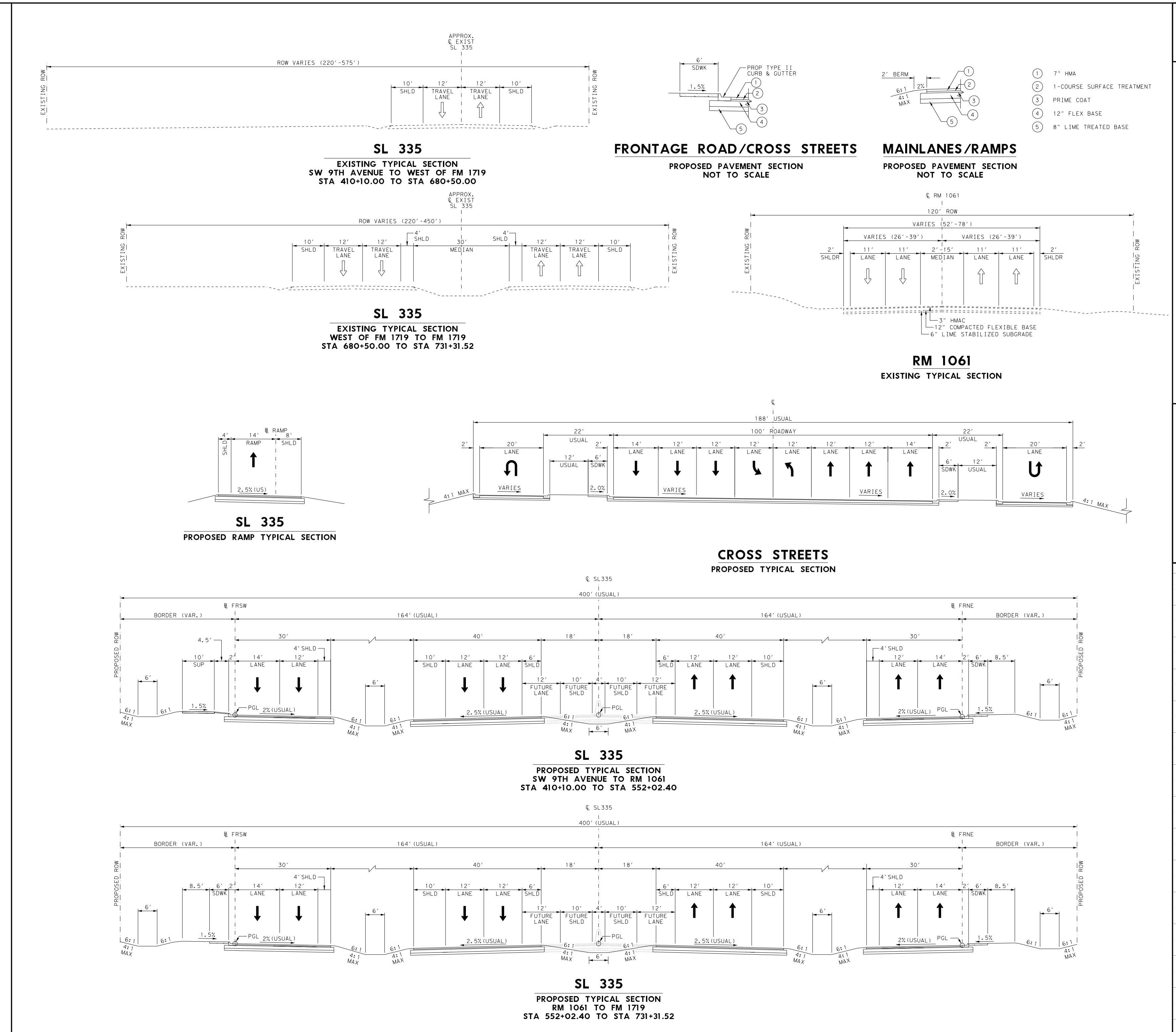


SL 335
EXISTING TYPICAL SECTION
SW 9TH AVENUE TO WEST OF FM 1719
STA 410+10.00 TO STA 680+50.00

SL 335
EXISTING TYPICAL SECTION
WEST OF FM 1719 TO FM 1719
STA 680+50.00 TO STA 731+31.52

FRONTAGE ROAD/CROSS STREETS
PROPOSED PAVEMENT SECTION
NOT TO SCALE

MAINLANES/RAMPS
PROPOSED PAVEMENT SECTION
NOT TO SCALE

RM 1061
EXISTING TYPICAL SECTION

SL 335
PROPOSED RAMP TYPICAL SECTION

CROSS STREETS
PROPOSED TYPICAL SECTION

SL 335
PROPOSED TYPICAL SECTION
SW 9TH AVENUE TO RM 1061
STA 410+10.00 TO STA 552+02.40

SL 335
PROPOSED TYPICAL SECTION
RM 1061 TO FM 1719
STA 552+02.40 TO STA 731+31.52

SL335-3	
PC STATION	= 515+90.96
PI STATION	= 559+32.36
PT STATION	= 591+44.41
DELTA	= 70° 39' 28.88" (RT)
DEGREE OF CURVE	= 0° 56' 7.59"
LENGTH	= 7553.44'
TANGENT	= 4341.40'
RADIUS	= 6125.00'

335FRSW01-3	
PC STATION	= 2514+00.00
PI STATION	= 2526+35.57
PT STATION	= 2538+51.29
DELTA	= 17° 46' 41.91" (RT)
DEGREE OF CURVE	= 0° 43' 30.95"
LENGTH	= 2451.29'
TANGENT	= 1235.57'
RADIUS	= 7900.00'

335FRSW01-4	
PC STATION	= 2542+69.96
PI STATION	= 2546+35.18
PT STATION	= 2549+96.82
DELTA	= 13° 52' 55.03" (RT)
DEGREE OF CURVE	= 1° 54' 35.49"
LENGTH	= 726.86'
TANGENT	= 365.22'
RADIUS	= 3000.00'

RS335FUTS-1	
PC STATION	= 10+00.00
PI STATION	= 15+23.71
PT STATION	= 20+41.50
DELTA	= 14° 55' 6.38" (RT)
DEGREE OF CURVE	= 1° 25' 56.62"
LENGTH	= 1041.50'
TANGENT	= 523.71'
RADIUS	= 4000.00'

335FRSW01-5	
PC STATION	= 2549+96.82
PI STATION	= 2552+66.26
PT STATION	= 2555+35.50
DELTA	= 3° 51' 28.99" (RT)
DEGREE OF CURVE	= 0° 42' 58.31"
LENGTH	= 538.69'
TANGENT	= 269.44'
RADIUS	= 8000.00'

335FRSW01-6	
PC STATION	= 2561+47.34
PI STATION	= 2564+84.77
PT STATION	= 2568+19.37
DELTA	= 12° 50' 5.24" (RT)
DEGREE OF CURVE	= 1° 54' 35.49"
LENGTH	= 672.03'
TANGENT	= 337.43'
RADIUS	= 3000.00'

335FRSW01-7	
PC STATION	= 2571+94.49
PI STATION	= 2583+18.21
PT STATION	= 2594+13.47
DELTA	= 22° 18' 17.70" (RT)
DEGREE OF CURVE	= 1° 0' 18.68"
LENGTH	= 2218.98'
TANGENT	= 1123.72'
RADIUS	= 5700.00'

RSCLTR335-1	
PC STATION	= 13+82.13
PI STATION	= 21+04.59
PT STATION	= 28+19.38
DELTA	= 14° 26' 49.22" (RT)
DEGREE OF CURVE	= 1° 0' 18.68"
LENGTH	= 1437.24'
TANGENT	= 722.45'
RADIUS	= 5700.00'

335FRNE01-3	
PC STATION	= 1515+00.04
PI STATION	= 1520+08.61
PT STATION	= 1525+13.62
DELTA	= 12° 21' 22.08" (RT)
DEGREE OF CURVE	= 1° 13' 8.61"
LENGTH	= 1013.58'
TANGENT	= 508.76'
RADIUS	= 4700.00'

RNFUTS335-1	
PC STATION	= 11+93.77
PI STATION	= 22+64.53
PT STATION	= 33+06.85
DELTA	= 22° 50' 36.63" (RT)
DEGREE OF CURVE	= 1° 4' 51.79"
LENGTH	= 2113.08'
TANGENT	= 1070.76'
RADIUS	= 5300.00'

335FRNE01-4	
PC STATION	= 1530+97.65
PI STATION	= 1535+81.06
PT STATION	= 1540+58.40
DELTA	= 15° 43' 39.40" (RT)
DEGREE OF CURVE	= 1° 38' 13.28"
LENGTH	= 960.75'
TANGENT	= 483.41'
RADIUS	= 3500.00'

335FRNE01-5	
PC STATION	= 1540+58.40
PI STATION	= 1548+70.26
PT STATION	= 1556+76.59
DELTA	= 11° 35' 22.06" (RT)
DEGREE OF CURVE	= 0° 42' 58.31"
LENGTH	= 1618.19'
TANGENT	= 811.87'
RADIUS	= 8000.00'

335FRNE01-6	
PC STATION	= 1556+76.59
PI STATION	= 1558+77.05
PT STATION	= 1560+77.07
DELTA	= 6° 33' 21.19" (RT)
DEGREE OF CURVE	= 1° 38' 13.28"
LENGTH	= 400.48'
TANGENT	= 200.46'
RADIUS	= 3500.00'

335FRNE01-7	
PC STATION	= 1565+46.90
PI STATION	= 1575+21.02
PT STATION	= 1584+65.54
DELTA	= 24° 25' 44.15" (RT)
DEGREE OF CURVE	= 1° 16' 23.66"
LENGTH	= 1918.64'
TANGENT	= 974.12'
RADIUS	= 4500.00'

335FRNE01-8	
PC STATION	= 1599+46.04
PI STATION	= 1602+23.22
PT STATION	= 1605+00.16
DELTA	= 4° 2' 3.12" (RT)
DEGREE OF CURVE	= 0° 43' 40.90"
LENGTH	= 554.13'
TANGENT	= 277.18'
RADIUS	= 7870.00'

RN335CLTR-1	
PC STATION	= 10+00.00
PI STATION	= 17+31.55
PT STATION	= 24+51.92
DELTA	= 17° 19' 51.79" (RT)
DEGREE OF CURVE	= 1° 11' 37.18"
LENGTH	= 1451.92'
TANGENT	= 731.55'
RADIUS	= 4800.00'

RN335CLTR-2	
PC STATION	= 27+27.97
PI STATION	= 29+71.60
PT STATION	= 32+15.08
DELTA	= 3° 32' 46.57" (RT)
DEGREE OF CURVE	= 0° 43' 40.90"
LENGTH	= 487.11'
TANGENT	= 243.63'
RADIUS	= 7870.00'

RN1061335-1	
PC STATION	= 10+00.00
PI STATION	= 13+04.34
PT STATION	= 16+08.38
DELTA	= 4° 25' 45.15" (RT)
DEGREE OF CURVE	= 0° 43' 40.90"
LENGTH	= 608.38'
TANGENT	= 304.34'
RADIUS	= 7870.00'

PRELIMINARY
SUBJECT TO CHANGE

LEGEND
- PROPOSED MAINLANES
- PROPOSED FRONTAGE ROAD/CROSS STREET
- PROPOSED RAMP
- PROPOSED BRIDGE
- PROPOSED PAVED MEDIAN
- EXISTING BRIDGE TO REMAIN
- SHARED USE PATH
- PROPOSED SIDEWALK
- PROPOSED PAVEMENT IN ADJACENT SEGMENT
- FEMA FLOOD PLAIN ZONE A/AE
- PAVEMENT REMOVAL
- POTENTIAL DETENTION LOCATION
- PROPOSED RETAINING WALL
- EXISTING ROW
- PROPOSED ROW
- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- # OF TRAVEL LANES

UTILITY LEGEND

OL"B"	OL"C/D"	
T1	T1(D)	AT&T (TELEPHONE)
T2	T2(D)	AT&T (FIBER OPTIC)
T3	T3(D)	AT&T LEGACY (FIBER OPTIC)
T4	T4(D)	ZAYO GROUP (FIBER OPTIC)
T5	T5(D)	SPRINT NEXTEL
T6	T6(D)	QWEST (FIBER OPTIC)
T7	T7(D)	FIBERLIGHT (FIBER OPTIC)
T8	T8(D)	WEST TX. RURAL TELEPHONE CO-OP (FIBER OPTIC)
T9	T9(D)	SUDDENLINK
T10	T10(D)	LEVEL 3
T11	T11(D)	XIT COMMUNICATION
T12	T12(D)	NTS COMMUNICATIONS, INC
G1	G1(D)	ATMOS ENERGY
G2	G2(D)	PLAINS PIPELINE
G3	G3(D)	NUSTAR LOGISTICS
G4	G4(D)	AMARILLO NATURAL GAS
G5	G5(D)	AGRITEX GAS
G6	G6(D)	ETC TRANSWESTERN PIPELINE
G7	G7(D)	ONEOK
G8	G8(D)	BLUEFISH PIPELINE
G9	G9(D)	WEST TEXAS GAS
G10	G10(D)	JUNCTION PIPELINE
G11	G11(D)	ALL AMERICAN PIPELINE
CTV1	CTV1(D)	SUDDENLINK (CABLE TELEVISION)
E1	OED	XCEL ENERGY UG(DISTRIBUTION)
E2	OET	XCEL ENERGY UG(TRANSMISION)
E3	E3(D)	TxDOT UG
WW1	WW1(D)	CITY OF AMARILLO (FUTURE WASTEWATER)
		CITY OF AMARILLO (WASTEWATER)
FM1	FM1(D)	CITY OF AMARILLO (FORCE MAIN)
W1	W1(D)	CITY OF AMARILLO
W2	W2(D)	CANADIAN RIVER MUNICIPALITY WATER AUTHORITY
UNK		UNKNOWN

TRAFFIC COUNT
FINAL TRAFFIC VOLUMES AND CONFIGURATION PENDING RESULTS OF ONGOING TRAFFIC STUDY

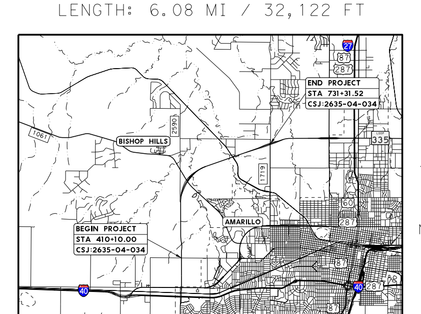
SL335

TEXAS DEPARTMENT OF TRANSPORTATION

SCHEMATIC LAYOUT
SL 335 SEGMENT C-1
POTTER COUNTY

AMARILLO DISTRICT DESIGN SCHEMATIC
BRIAN CRAWFORD P.E., DISTRICT ENGINEER

IMPROVEMENTS LOCATIONS:
SL 335: SW 9TH AVE. TO FM 1719
CSJ: 2635-04-034
LENGTH: 6.08 MI / 32,122 FT



PROJECT LOCATION MAP

NOT A BIDDING DOCUMENT

KRISTI D. FLAGG, P.E.
P.E. #91780
PROJECT MANAGER

DATE

SUBMITTED FOR APPROVAL FOR FURTHER PROJECT DEVELOPMENT

RECOMMENDED BY
RECOMMENDED BY
ADVANCED PROJECT DEVELOPMENT DIRECTOR
DISTRICT DESIGN ENGINEER

RECOMMENDED BY
APPROVED BY
AREA ENGINEER
DIRECTOR, TRANSPORTATION PLANNING & DEVELOPMENT

ROADWAY	DESIGN SPEED	CLASSIFICATION
MAINLANES	55 M.P.H.	URBAN FREEWAY
FRONTAGE ROADS	50 M.P.H.	URBAN COLLECTOR
RAMPS	50 M.P.H.	URBAN FREEWAY

PROPOSED DESIGN STANDARDS (STRUCTURES): LRFD
PROPOSED DESIGN STANDARDS (ROADWAY): TxDOT ROADWAY DESIGN MANUAL CHAPTER 3, 4R, SECTION 6 FREEWAYS (APRIL 2018)
PROPOSED DESIGN STANDARDS (TRAFFIC): TMUTCD & APPLICABLE TRAFFIC STANDARDS
ROAD TYPE: 4-LANE FREEWAY WITH MAINLANES & FRONTAGE ROADS
STATE PLANE ZONE: 4201 - N
SURFACE ADJUSTMENT SCALE FACTOR: 1.000250413
FUNCTIONAL CLASSIFICATION: URBAN FREEWAY
TERRAIN: ROLLING
e_{max}: 6%
ADT: 2025 14,760; 2045 21,250; 2055 26,580

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ENGINEER KRISTI D. FLAGG
P.E. NO. 91780 DATE 11/12/2019

HORIZONTAL SCALE: 1"=100'   VERTICAL SCALE: 1"=10'

DESIGN EXCEPTIONS: NONE, DESIGN WAIVERS: NONE, DESIGN VARIANCES: NONE, RAILROAD CROSSINGS: BNSF

JMT
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Texas Department of Transportation
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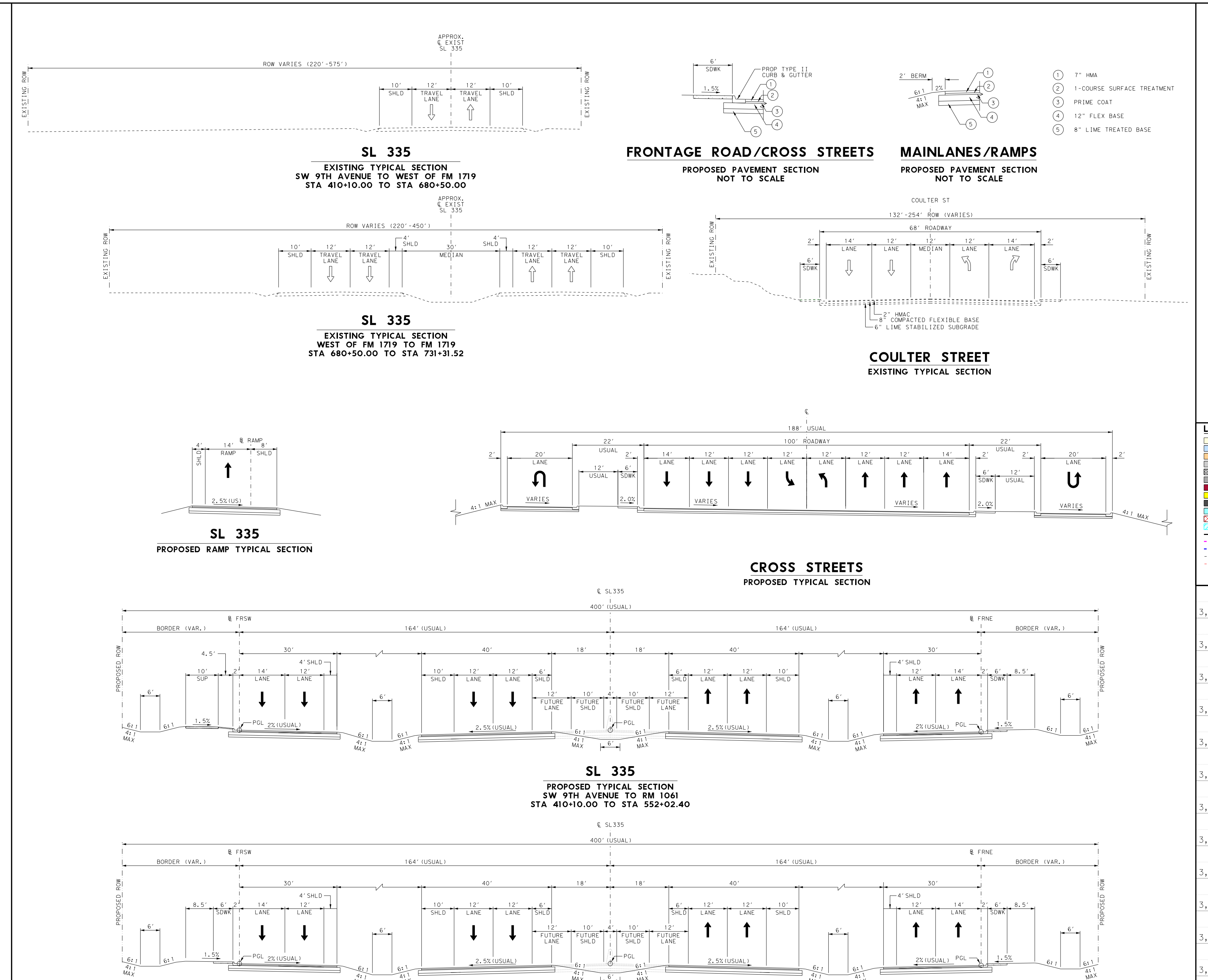
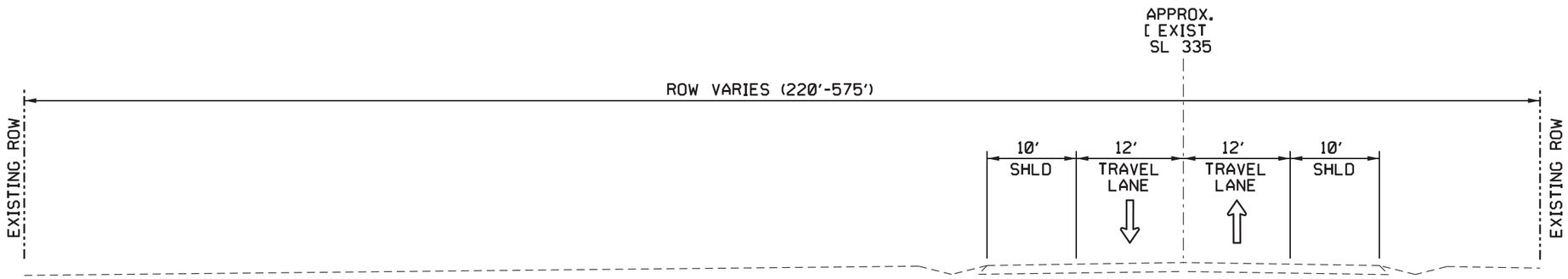


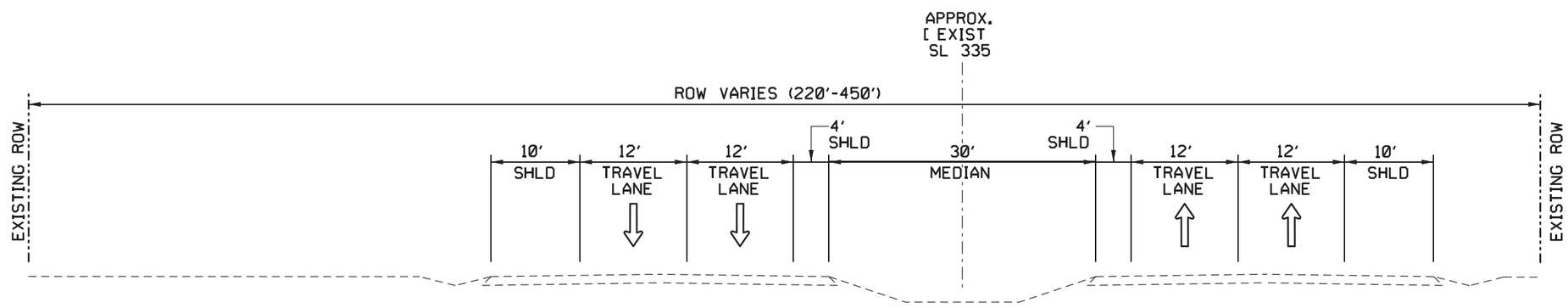
Appendix D

Typical Sections



SL 335

EXISTING TYPICAL SECTION
SW 9TH AVENUE TO WEST OF FM 1719
STA 414+10.00 TO STA 680+50.00



SL 335

EXISTING TYPICAL SECTION
WEST OF FM 1719 TO FM 1719
STA 680+50.00 TO STA 731+31.52

SHEET
1 OF 2

TYPICAL
SECTIONS

ENVIRONMENTAL
EXHIBIT

TBPE FIRM REG. NO. F-16341

SL 335
SEGMENT C-1

CSJ 2635-04-034

PRELIMINARY
SUBJECT TO CHANGE

NOT TO SCALE

SHEET 1 OF 2

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2/26/2020

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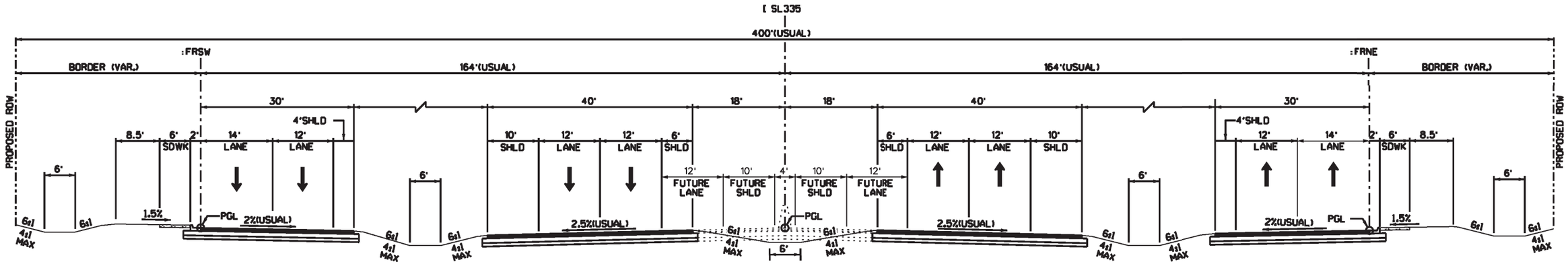
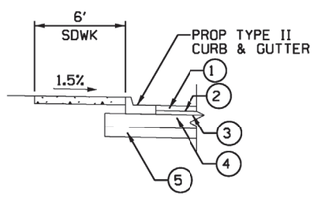


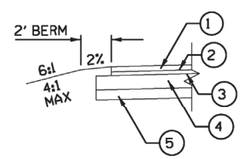
SL 335

PROPOSED TYPICAL SECTION



FRONTAGE ROAD/CROSS STREETS

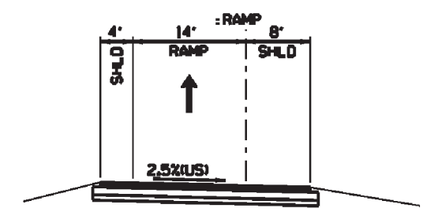
PROPOSED PAVEMENT SECTION
NOT TO SCALE



MAINLANES/RAMPS

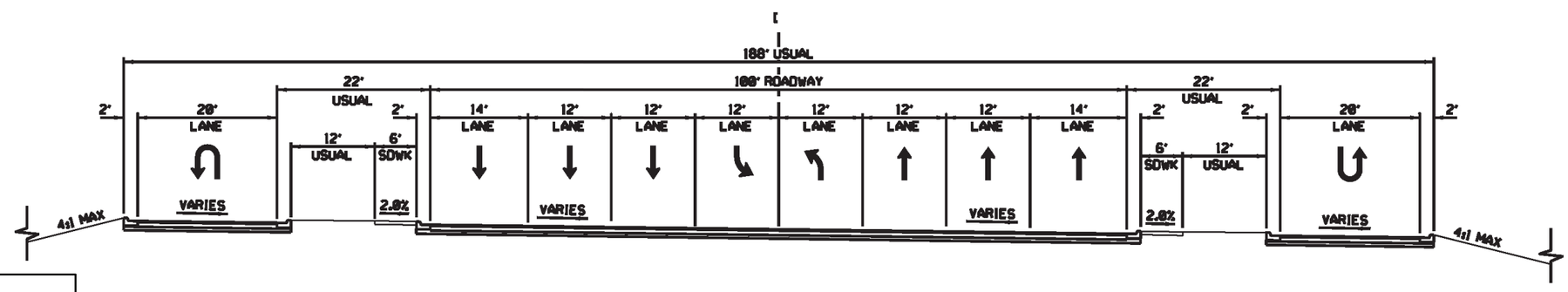
PROPOSED PAVEMENT SECTION
NOT TO SCALE

1. 7" HMA
2. 1-COURSE SURFACE TREATMENT
3. PRIME COAT
4. 12" FLEX BASE
5. 8" LIME TREATED BASE



SL 335

PROPOSED RAMP TYPICAL SECTION



CROSS STREETS

PROPOSED TYPICAL SECTION

SHEET 2 OF 2

TYPICAL SECTIONS

ENVIRONMENTAL EXHIBIT

TBPE FIRM REG. NO. F-10341

SL 335
SEGMENT C-1

CSJ 2635-04-034

PRELIMINARY
SUBJECT TO CHANGE

NOT TO SCALE

SHEET 2 OF 2

8:30:22 AM

2/26/2020

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Appendix E

Plan and Program Excerpts

Table 5.2
Fiscally Constrained Project List – Amarillo Metropolitan Transportation Plan 2020-2045

MPO ID	Facility	From/At	To	Description	Status	Timing	YOE Total Project Cost x $1000
A20001	SL 335	IH 40	SW 9th Ave	B-2 Phase II: Construct Frontage Roads			$26,400
Notes:	This is a multi-phase project						
Phase I	SL 335	IH 40	FM 2590 North	Construct Frontage Roads	Short*	2020	
Phase II	SL 335	FM 2590 North	SW 9th Ave	Construct Frontage Roads *Ancestor : A15169*	Short	2020	
A20002	SL 335	FM 2590	West of Coulter	B-1 Phase II: Construct Main Lanes and Frontage Roads *Ancestor : A15159*	Short	2021	$32,200
A20003	SL 335	SW 9th Ave	FM 1219 (Western)	C-1 Phase I: Upgrade to 4-Lane Divided From SW 9th to RM 1061, Upgrade to Freeway From RM 1061 to FM 1719 *Ancestor : A15135*	Short	2023	$82,500
A20004	SL 335	.2 M N of 34th Ave	.4 M NE BI 40-D	B-2 Phase III: Construct SL 335 3rd Level Mainlane Bridge at IH 40, 4 New Mainlanes, Ramps, and BI 40-D Grade Separation			$44,900
Notes:	This is a multi-phase project						
Phase I	SL 335	Randall County Line	.4 M NE BI 40-D	B-2 Phase III: Construct SL 335 3rd Level Mainlane Bridge at IH 40, 4 New Mainlanes, Ramps, and BI 40-D Grade Separation *Ancestor : A15171*	Short	2024	
Phase II	SL 335	.2 M N of 34th Ave	Potter County Line		Short	2024	
A20020	IH 27	45th Ave	IH 40	On/Off Ramp Improvements, Construct Aux Lanes, Reconstruct Bridges, Intersection Improvements, Improve ADA		2021	$23,700
Notes:	This is a multi-phase project						
Phase I	IH 27	45th Ave	IH 40	Upgrade Standards, On/Off Ramp Improvements, Construct Aux Lanes, Overlay	Short	2021	$23,700
Phase II	IH 27	45th Ave	IH 40	On/Off Ramp Improvements, Construct Aux Lanes, Reconstruct Bridges, Intersection Improvements, Improve ADA	Illustrative		

*Short refers to years 1-10 in the plan

SL 335 C-1 Phase 1, Construction CSJ 2635-04-031: Fully Funded

TxDOTCONNECT

Projects | Portfolios / Programs | Right of Way | Letting | Administrative

Funding

Save Project

- Location
- Project Details
- Funding
  - Summary
  - Funding Details
- Letting
- Engineer's Estimate
- Sealing & Summary
- Goals & Objectives
- Resources
- Right of Way/Utilities
- Workflow, Forms & Templates
- Project Comments

*Project ID:	A00121311	Project Name:	SL 335 C-1 PHASE I				
Project Type:	Construction	Project Subtype:	Roadway	Project Stage:	PS&E	Project Status:	Active
*District / Division:	Amarillo - 04	County:	Potter	Highway:	SL 335	Control Section:	2635-04
Construction Estimate	$82,500,000.00	Estimated Let Date:	01/2023	Controlling Project ID:	2635-04-031	Control Section Job:	2635-04-031

Summary

Funding Group	Total Authorized Amount	Total Federal Amount	Total State Amount	Total Local Amount
Planning	$0.00	$0.00	$0.00	$0.00
PE	$0.00	$0.00	$0.00	$0.00
Construction	$82,500,001.00	$66,000,000.80	$16,500,000.20	$0.00
ROW	$730,000.00	$0.00	$730,000.00	$0.00
Total	$83,230,001.00	$66,000,000.80	$17,230,000.20	$0.00

Funding Details

Planning

+ Planning

									Federal	State	Local	Minute Order	TDC		Flags	
Status	Amt	Cat	Wrk Pgm	PID	Fixed	Demo	APPN	Appl %	Fed %	St %	Loc %	MO #	TDC Type	TDC %	AC	ERP

No Rows To Show

Appendix F

Resource Maps

Community Resource

Proposed Project

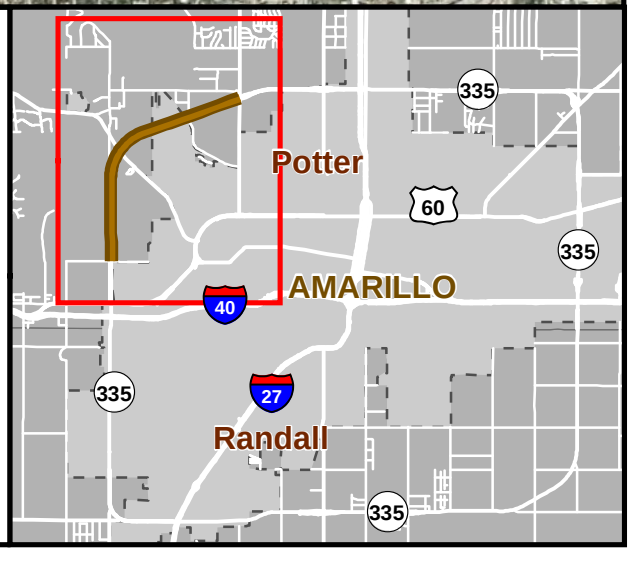
Old Soncy Trail

City Limit

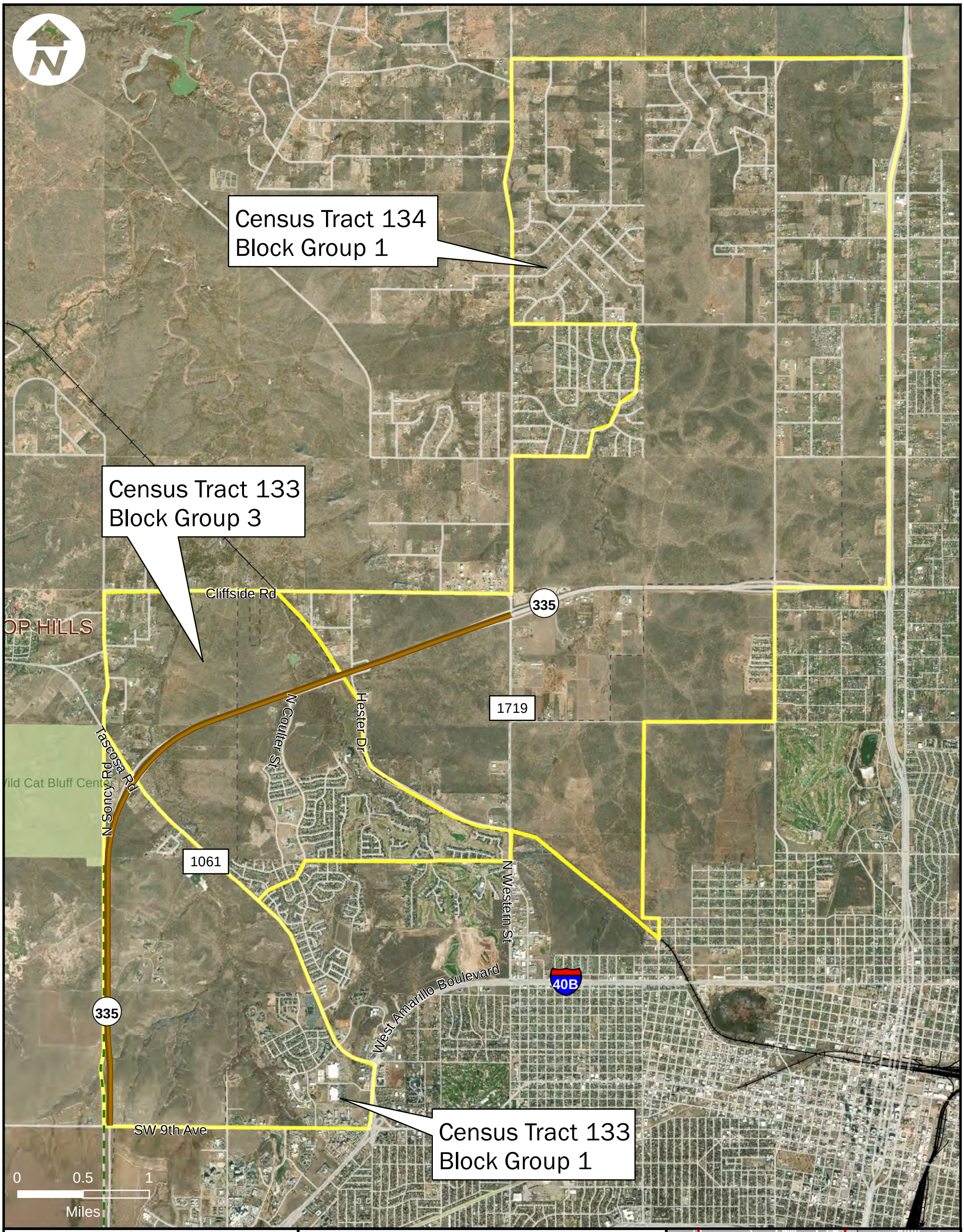
Appendix F, Map 1
Community Resources

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034



Sources: TxDOT, USGS NHD, OpenStreetMap, FEMA NFHL, ESRI (Imagery)



Proposed Project

Census Block Group

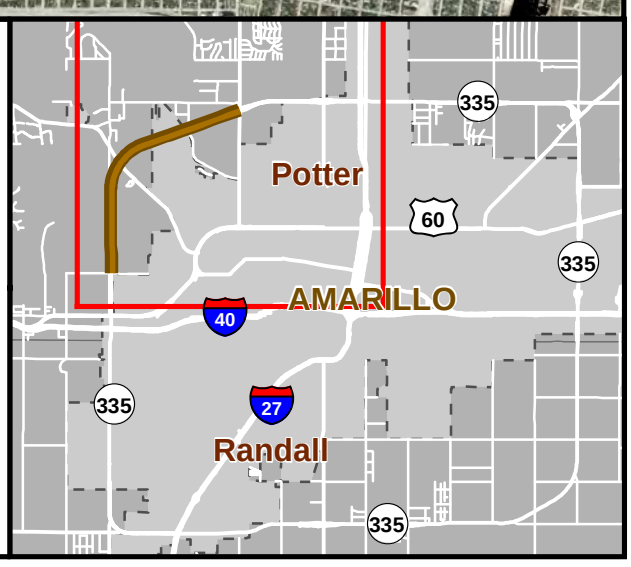
City Limit

Old Soncy Trail

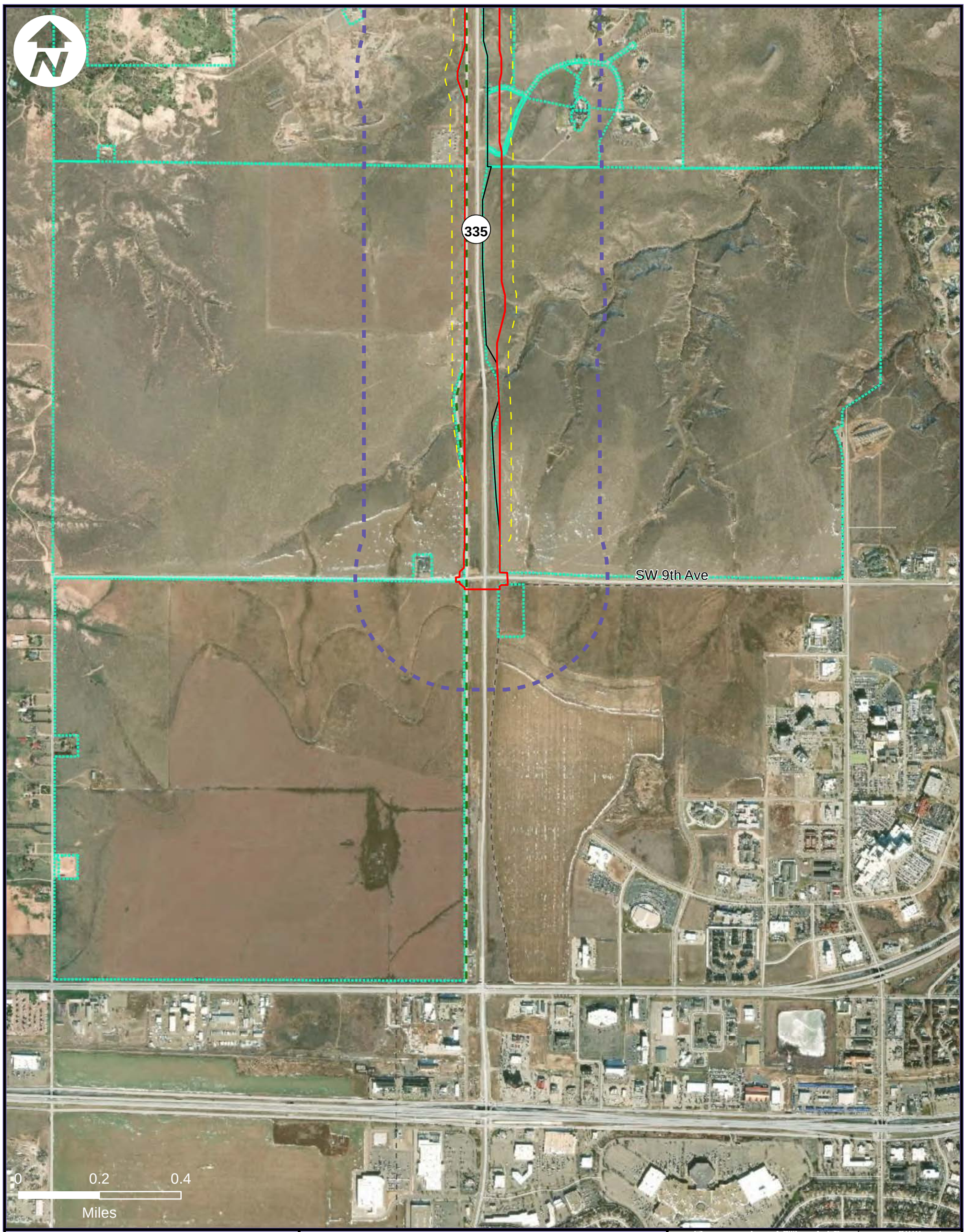
Appendix F, Map 2
Census Block Groups

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034



Sources: TxDOT, USGS NHD, OpenStreetMap, FEMA NFHL, ESRI (Imagery)



Historic Study Area
Project Area
Historic APE
Existing Row
Historic-Age Parcel
State Historic Sites
National Register PY
Adjacent Parcel
City Limit
Old Soncy Trail

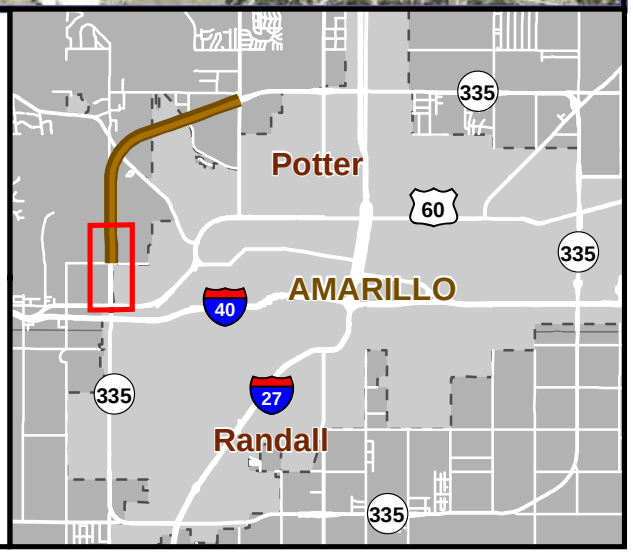
Appendix F, Map 3

Historic Resources

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034

Sheet 1 of 4



Sources: TxDOT, USGS NHD, OpenStreetMap, FEMA NFHL, ESRI (Imagery)

Resource 01
370046081000R

Tascosa Rd

Resource 02
370046030500R

Modified
Boxcars

Wild Cat Bluff Center

N Soncy Rd

Resource 03
370046028000R

Wildcat Bluff
Nature Center
370058000010R

1061

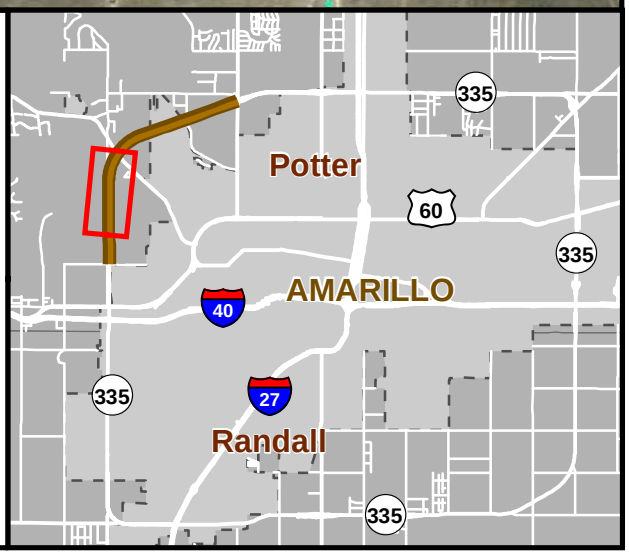
335

0 0.225 0.45
Miles

Historic Study Area
Project Area
Historic APE
Existing Row
Historic-Age Parcel
State Historic Sites
National Register PY
Adjacent Parcel
City Limit
Old Soncy Trail

Appendix F, Map 3
Historic Resources

State Loop 335
Segment C-1
From SW 9th Ave. to FM 1719
CSJ 2635-04-034
Sheet 2 of 4



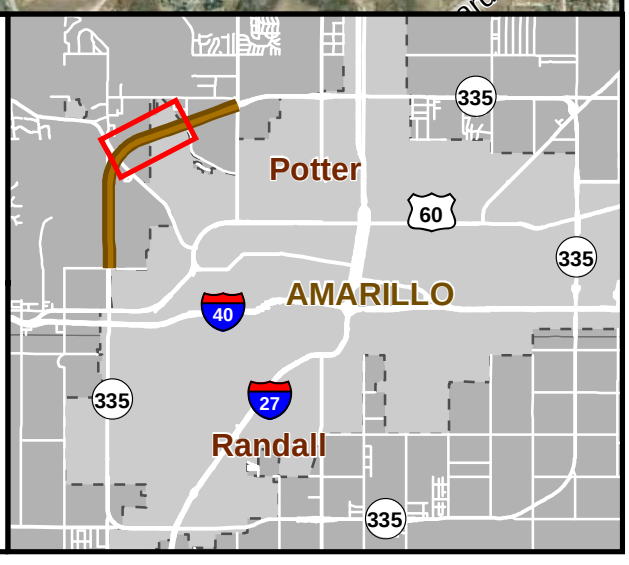
Sources: TxDOT, USGS NHD, OpenStreetMap, FEMA NFHL, ESRI (Imagery)

Cliffside Rd
Tascosa Rd
N Soncy Rd
N Coulter St
Hester Dr
Cat Bluff Center
Resource 01
370046081000R
Resource 02
370046030500R
Resource 03
370046028000R
Modified
Boxcars
Wildcat Bluff
Nature Center
370058000010R
370022045530R
(outside APE)
1061
0 0.3 0.6
Miles

Historic Study Area
Project Area
Historic APE
Existing Row
Historic-Age Parcel
State Historic Sites
National Register PY
Adjacent Parcel
City Limit
Old Soncy Trail

Appendix F, Map 3
Historic Resources

State Loop 335
Segment C-1
From SW 9th Ave. to FM 1719
CSJ 2635-04-034
Sheet 3 of 4



Sources: TxDOT, USGS NHD, OpenStreetMap, FEMA NFHL, ESRI (Imagery)

fside Rd

335

1719

370022045530R
(outside APE)

N Coulter St

Hester Dr

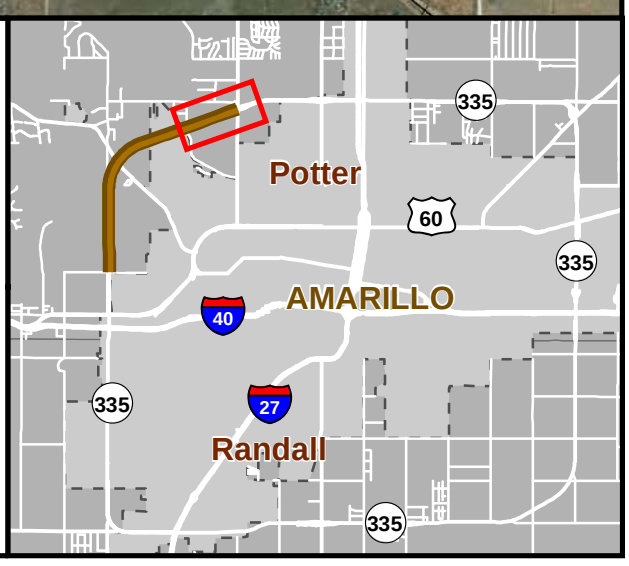
N Western

0 0.3 0.6
Miles

Historic Study Area
Project Area
Historic APE
Existing Row
Historic-Age Parcel
State Historic Sites
National Register PY
Adjacent Parcel
City Limit
Old Soncy Trail

Appendix F, Map 3
Historic Resources

State Loop 335
Segment C-1
From SW 9th Ave. to FM 1719
CSJ 2635-04-034
Sheet 4 of 4



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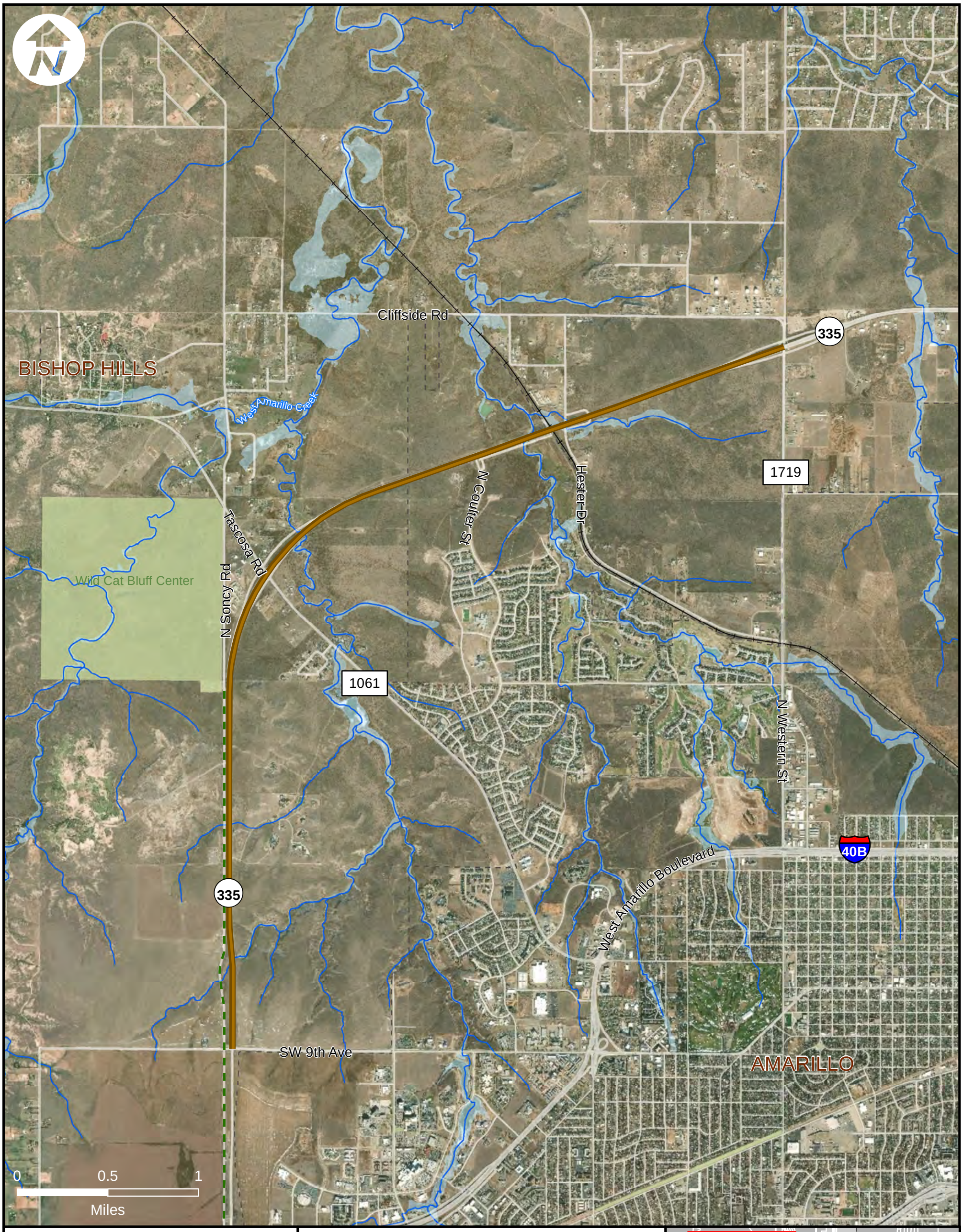


Proposed Project

Old Soncy Trail

Waterbody

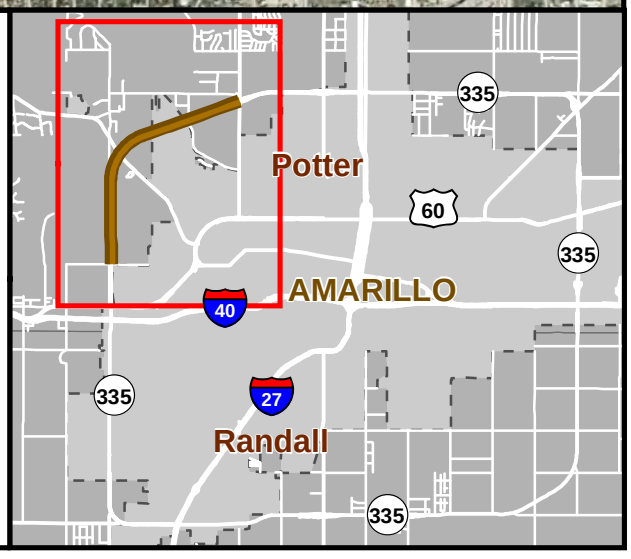
100-Year Floodplain

City Limit

Appendix F, Map 4.1
Water Resources

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034



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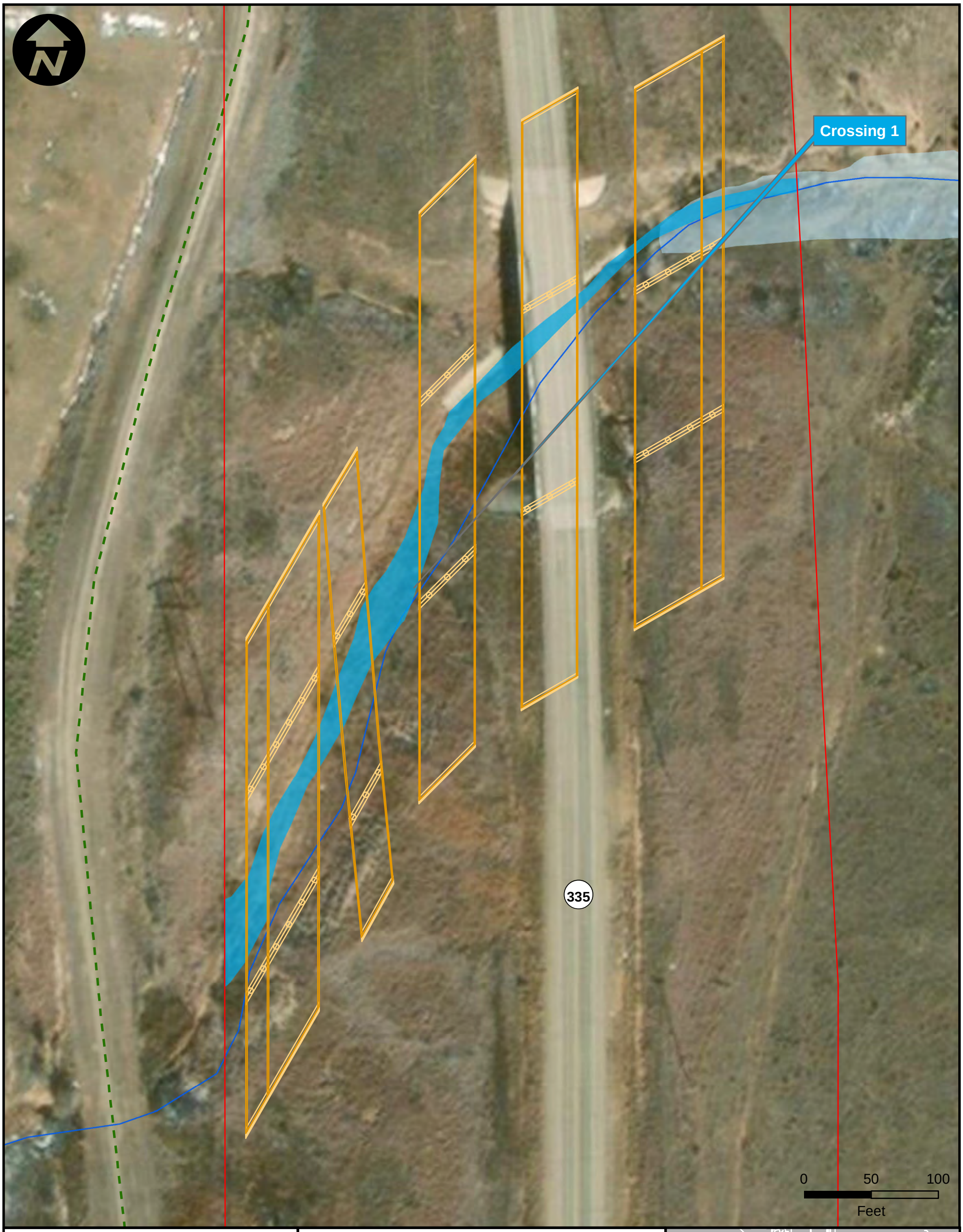


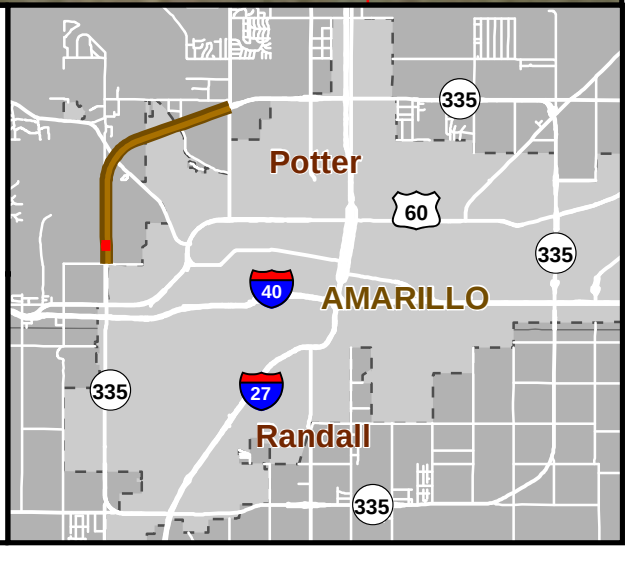
Project Area
Old Soncy Trail
Bent
Bridge
Culvert
Water Crossing
Potentially Impacted Water
NHD Waterbody
100-Year Floodplain

Appendix F, Map 4.2
Stream Crossings

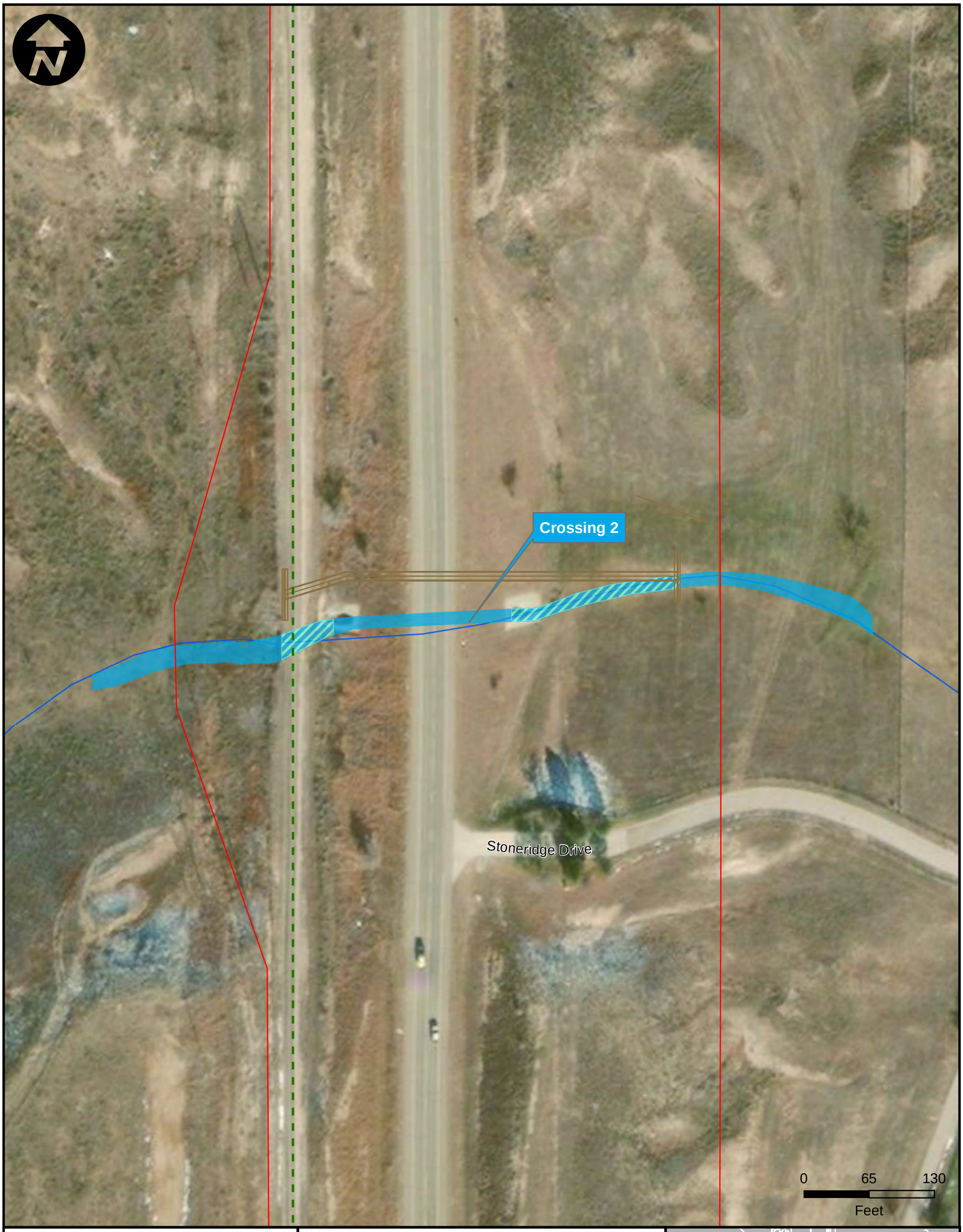
State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034

Sheet 1 of 5



Sources: TxDOT, USGS NHD, FEMA NFHL, ESRI (Imagery)



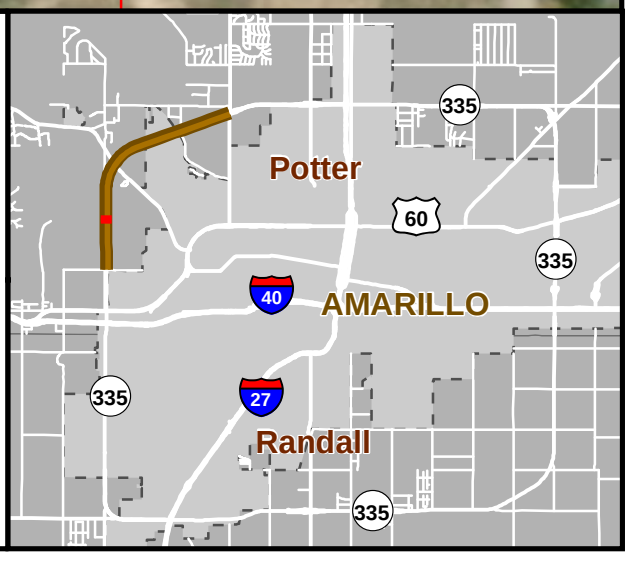
Project Area
Old Soncy Trail
Bent
Bridge
Culvert
Water Crossing
Potentially Impacted Water
NHD Waterbody
100-Year Floodplain

Appendix F, Map 4.2
Stream Crossings

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034

Sheet 2 of 5



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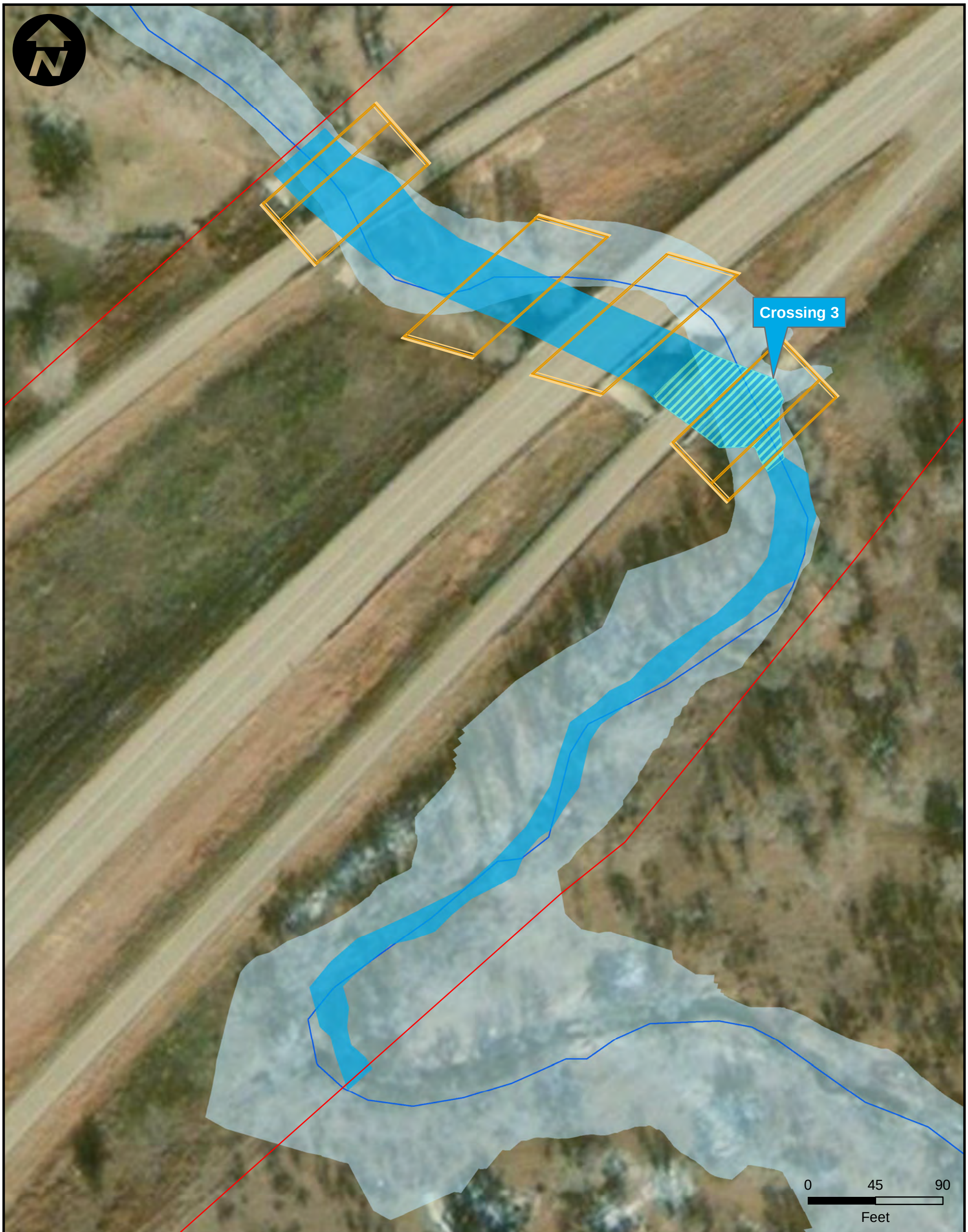
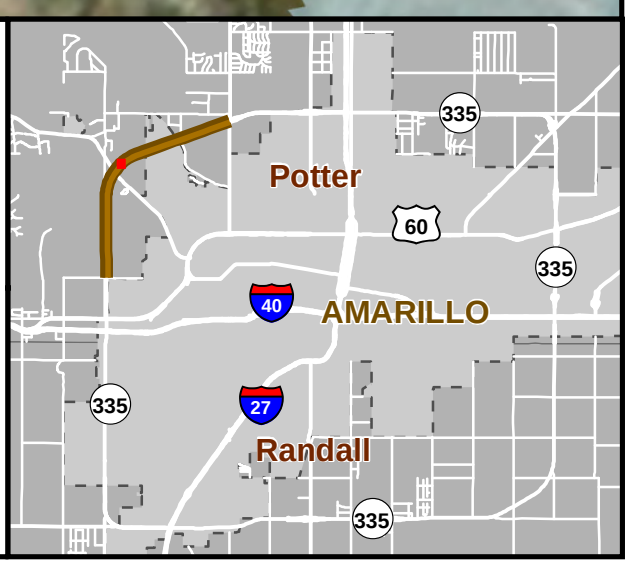


Project Area
Old Soncy Trail
Bent
Bridge
Culvert
Water Crossing
Potentially Impacted Water
NHD Waterbody
100-Year Floodplain

Appendix F, Map 4.2
Stream Crossings

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034



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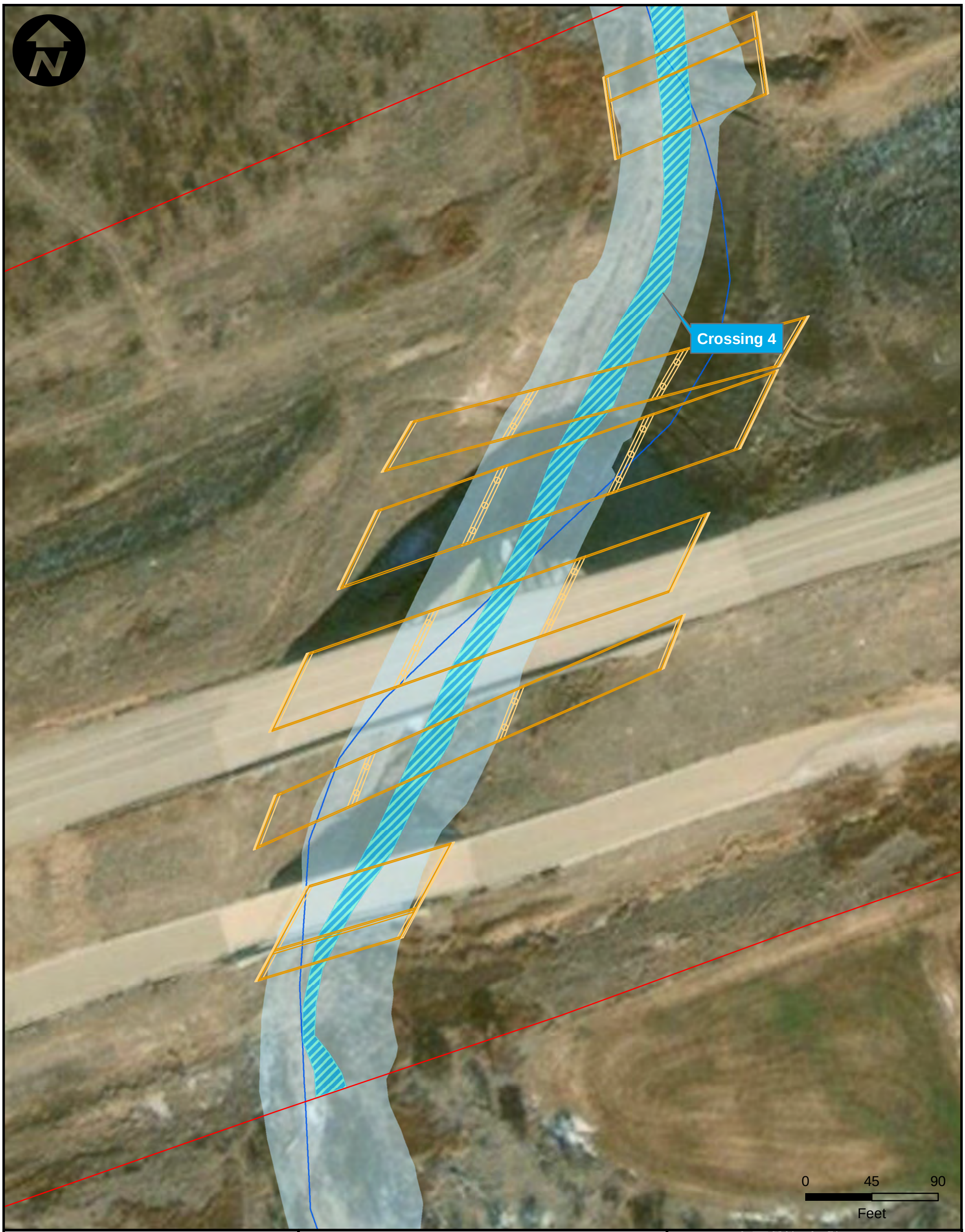


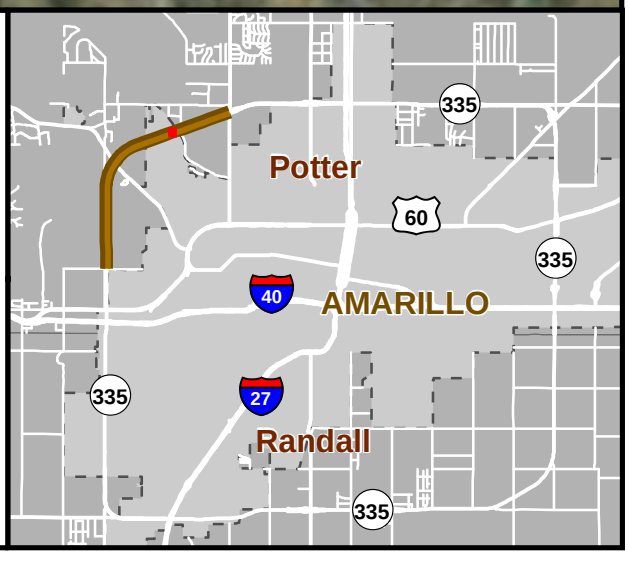
Project Area
Old Soncy Trail
Bent
Bridge
Culvert
Water Crossing
Potentially Impacted Water
NHD Waterbody
100-Year Floodplain

Appendix F, Map 4.2
Stream Crossings

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034

Sheet 4 of 5



Sources: TxDOT, USGS NHD, FEMA NFHL, ESRI (Imagery)

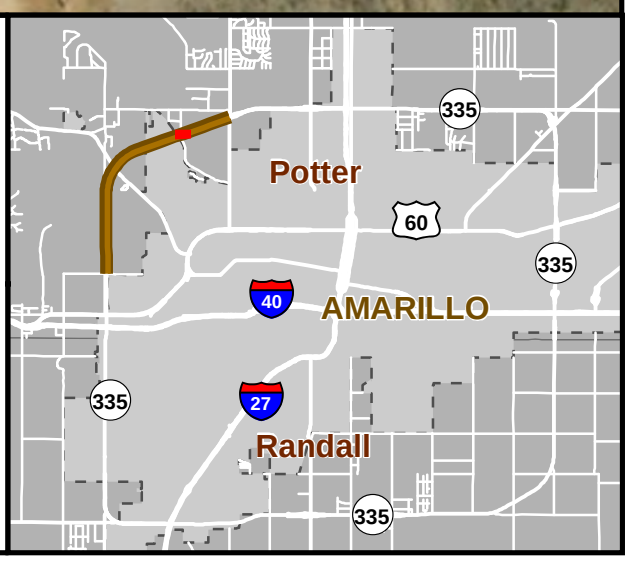
Project Area
Old Soncy Trail
Bent
Bridge
Culvert
Water Crossing
Potentially Impacted Water
NHD Waterbody
100-Year Floodplain

Appendix F, Map 4.2
Stream Crossings

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034

Sheet 5 of 5



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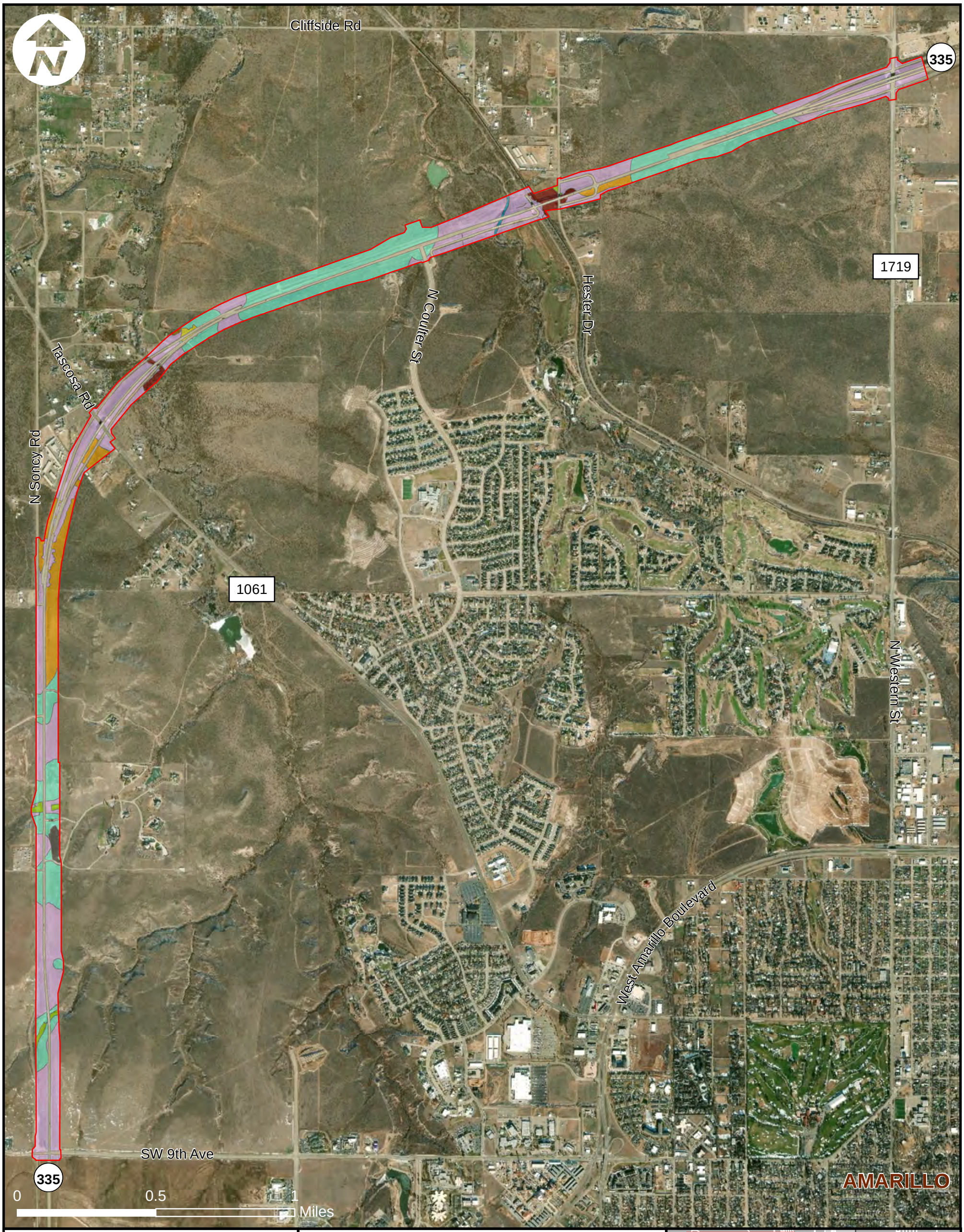


Project

High Plains: Floodplain Deciduous Shrubland

High Plains: Floodplain Hardwood Forest

High Plains: Floodplain Herbaceous Vegetation

High Plains: Riparian Herbaceous Vegetation

High Plains: Shortgrass Prairie

Native Invasive: Deciduous Shrubland

Native Invasive: Mesquite Shrubland

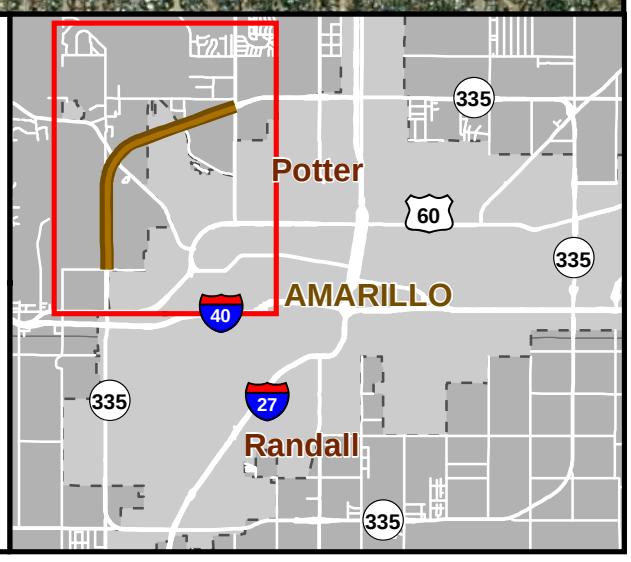
Rolling Plains: Breaks Canyon

Rolling Plains: Mixedgrass Prairie

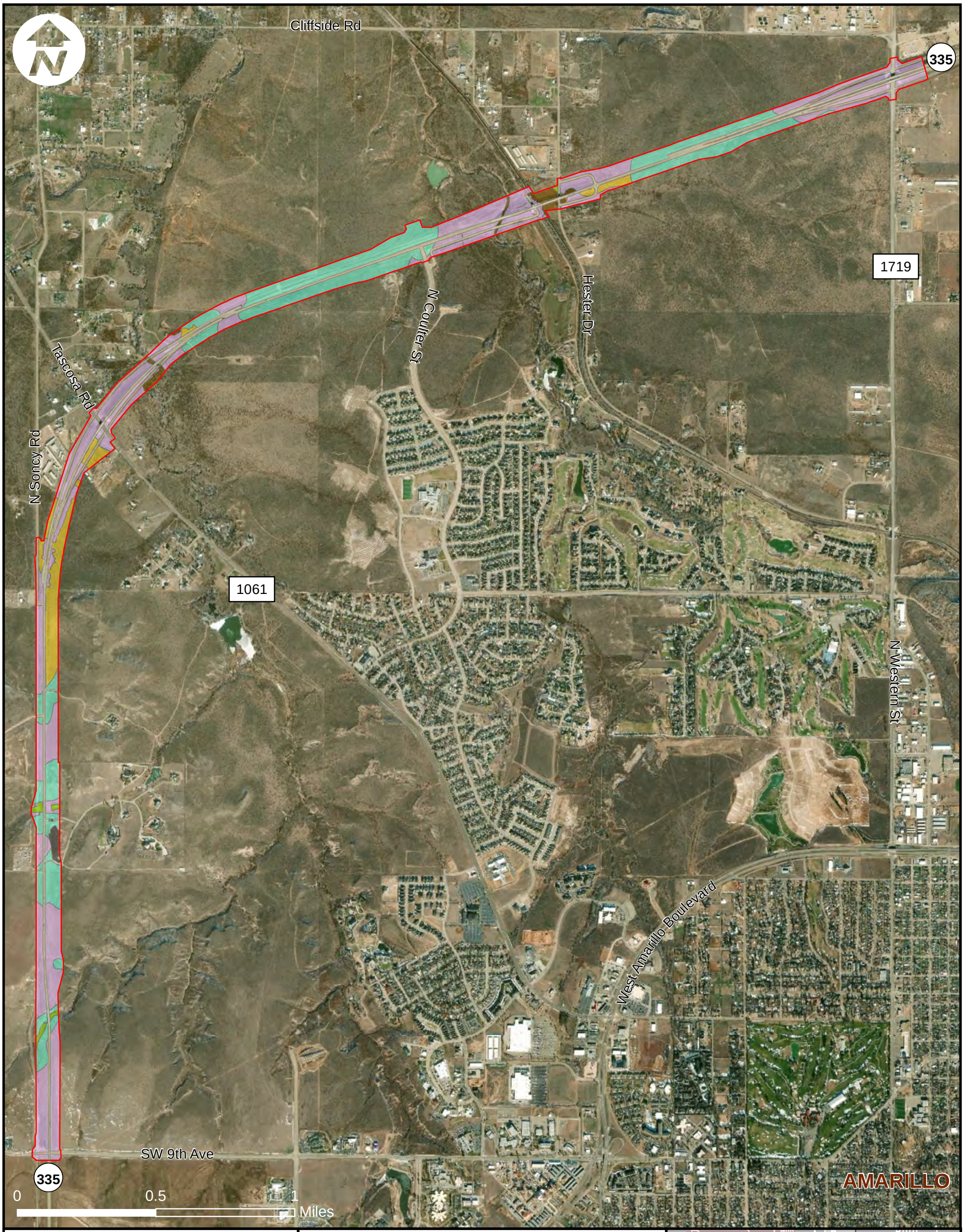
Appendix F, Map 5.1
Observed EMST Vegetation Types

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034



Sources: TxDOT, TPWD EMST, ESRI (Imagery)



Project

Central Mixed Grass Prairie*

Llano Estacado Escarpment Shrub and Steppe

Native Invasive Shrub and Woodland

Western Great Plains Floodplain*

Western Great Plains Riparian

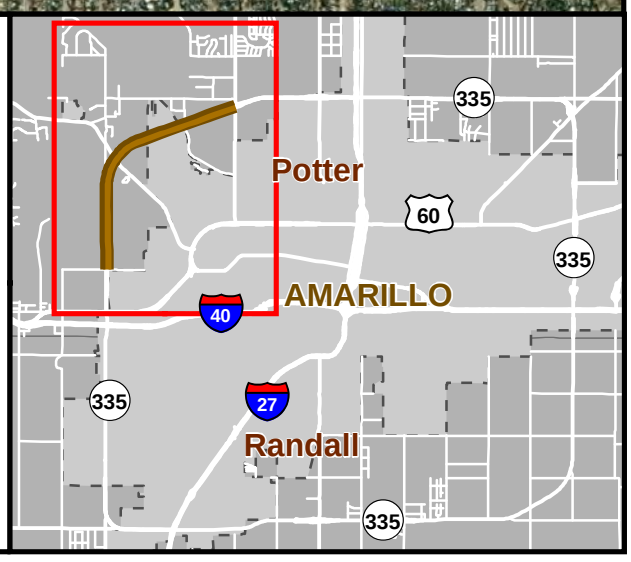
Western Great Plains Shorgrass Prairie

*Designated as Rare Plant Communities (Remnant Vegetation) by TCAP

Appendix F, Map 5.2
Observed Ecosystems

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034



Sources: TxDOT, TPWD EMST, ESRI (Imagery)

Project Area

Cliffs, Breaks, and Barrens

Disturbed Prairie

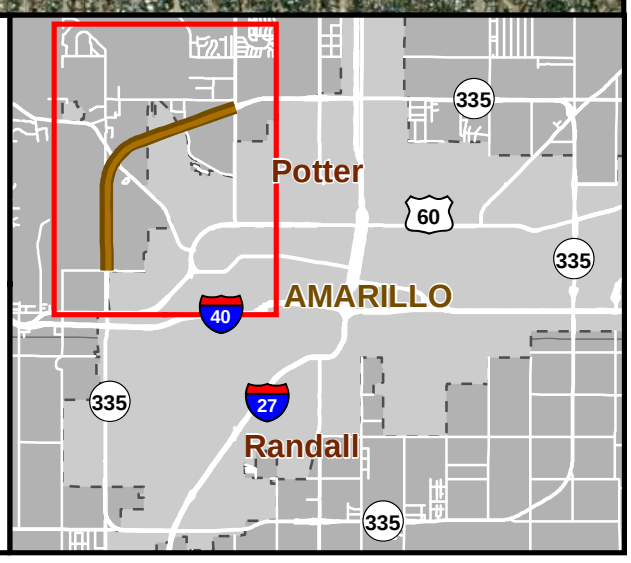
Mixed/Arid/Sand Grasslands

Western Wetlands, Riparian

Appendix F, Map 5.3
Observed MOU Habitats

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034



Sources: TxDOT, TPWD EMST, ESRI (Imagery)

Amarillo Refined Products Terminal
Diamond Shamrock Corp.
Diamond Shamrock Amarillo Terminal
Phillips Pipeline Co.
Phillips Pipeline Amarillo Terminal
GeoSearch Map ID #3 & 4

Cliffside Rd

335

1719

Hester Dr

N Coulter St

Landfill/Dump Site

Tascosa Rd

N Soncy Rd

1061

N Western St

Holmes Construction
GeoSearch Map ID #1

West Amarillo Boulevard

335

SW 9th Ave

Northwest Texas Healthcare System
GeoSearch Map ID #5

0 0.5 1
Miles

Existing ROW

Project Footprint

Site of Concern

Site of Concern

Waterbody

100-Year Floodplain

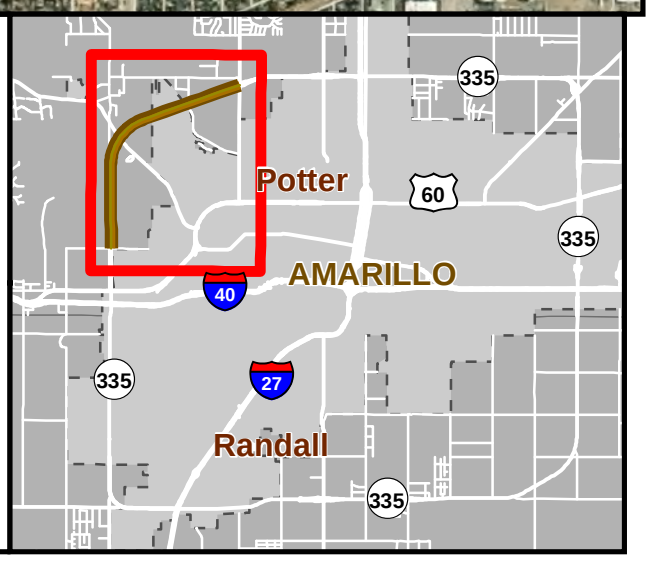
City Limit

Railroad

Appendix F, Map 6
HazMat Sites of Concern

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034



Sources: TxDOT, USGS NHD, GeoSearch, FEMA NFHL, ESRI (Imagery)

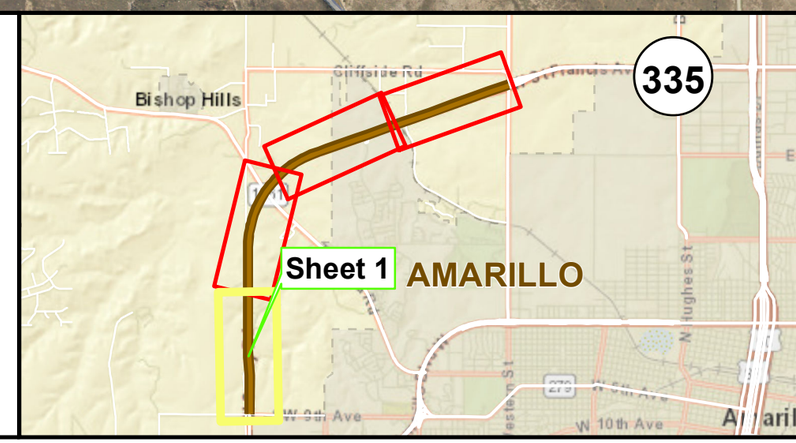
Legend

- Proposed Project
- Non-Impacted Receiver
- Old Soncy Trail
- City Limit
- 100 Year Flood Zone

W S N E

0 500 Feet

Base Map Source: TNRIS (2018)



APPENDIX F, MAP 7
NOISE RECEIVERS

State Loop 335
Segment C-1

From Southwest 9th Avenue
To FM 1719
Potter County, Texas

CSJ: 2635-04-034

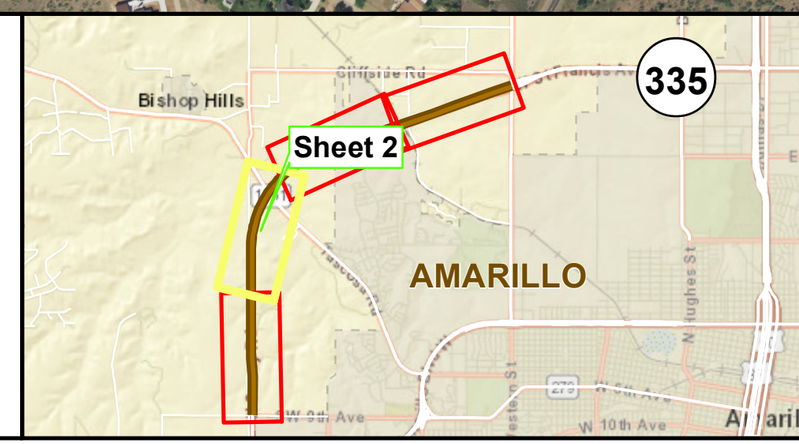
Legend

- Proposed Project
- Non-Impacted Receiver
- Old Soncy Trail
- City Limit
- 100 Year Flood Zone

N
W
E
S

0 500 Feet

Base Map Source: TNRIS (2018)



APPENDIX F, MAP 7
NOISE RECEIVERS

State Loop 335
Segment C-1

From Southwest 9th Avenue
To FM 1719
Potter County, Texas

CSJ: 2635-04-034

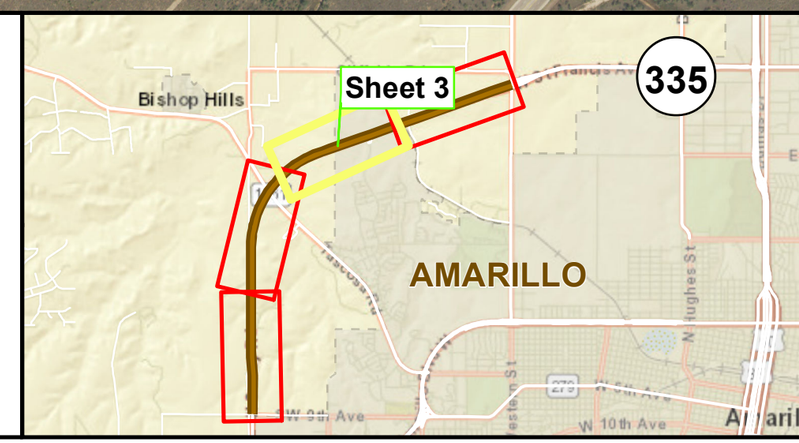
Legend

- Proposed Project
- Non-Impacted Receiver
- Old Soncy Trail
- City Limit
- 100 Year Flood Zone

N
W
E
S

0 500 Feet

Base Map Source: TNRIS (2018)



APPENDIX F, MAP 7
NOISE RECEIVERS

State Loop 335
Segment C-1

From Southwest 9th Avenue
To FM 1719
Potter County, Texas

CSJ: 2635-04-034

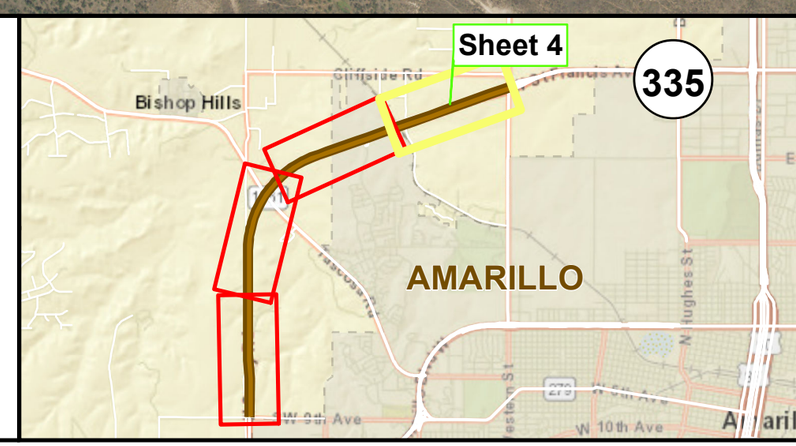
Legend

- Proposed Project
- Non-Impacted Receiver
- Old Soncy Trail
- City Limit
- 100 Year Flood Zone

N
W E
S

0 500
Feet

Base Map Source: TNRIS (2018)

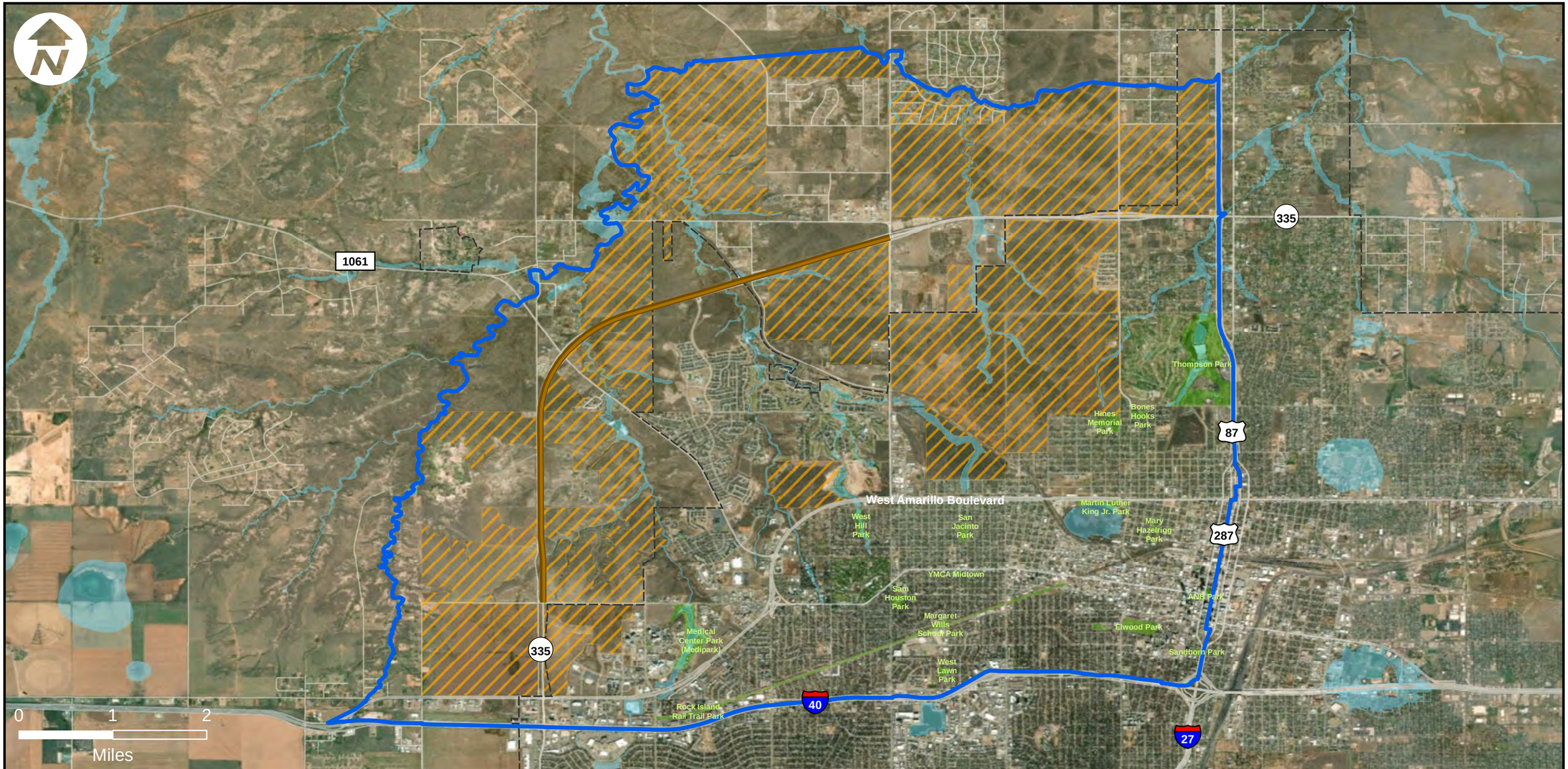


APPENDIX F, MAP 7
NOISE RECEIVERS

State Loop 335
Segment C-1

From Southwest 9th Avenue
To FM 1719
Potter County, Texas

CSJ: 2635-04-034



Proposed Project

Area of Influence

City Boundary

100-year Floodplain

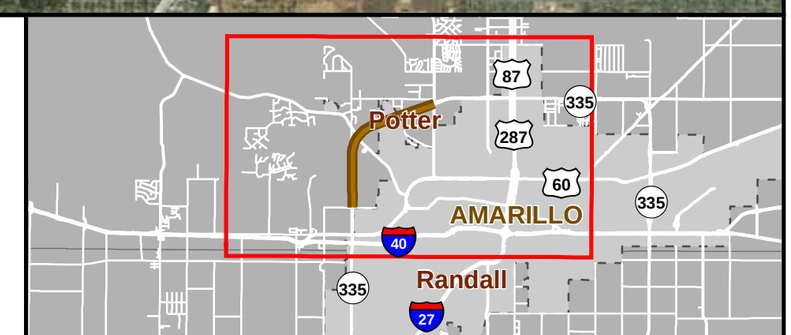
Waterbody

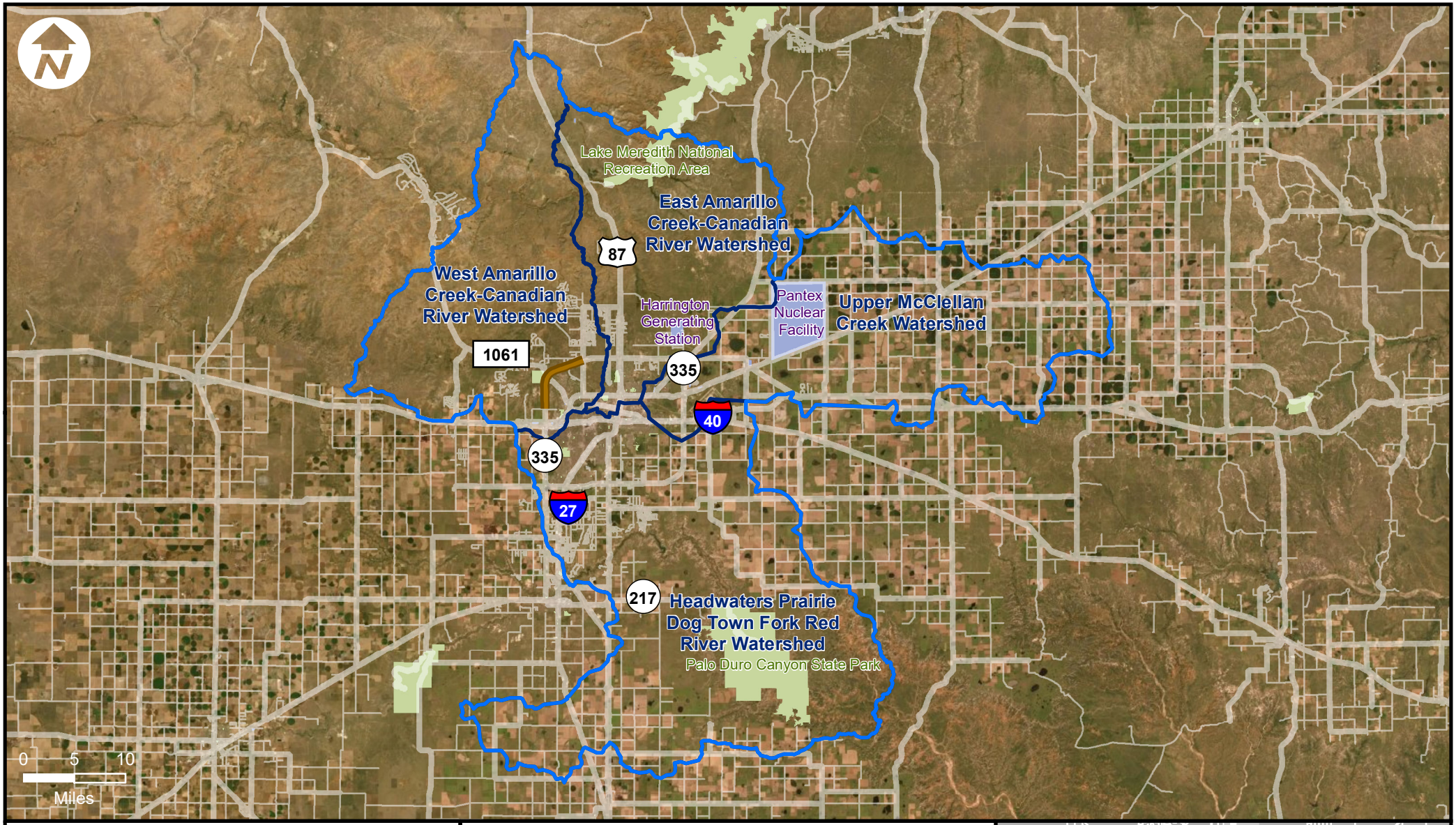
Potential Developable Area

Appendix F, Map 8
Induced Growth
Area of Influence

State Loop 335
Segment C-1

From SW 9th Ave. to FM 1719
CSJ 2635-04-034





Proposed Project

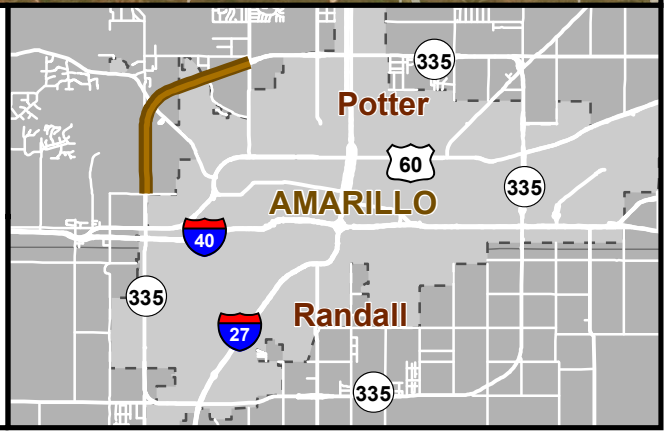
Biological Resources RSA

Watershed Boundary

State Loop 335
Segment C-1

Biological Resources
Resource Study Area Map

CSJ 2635-04-034



Appendix G

Resource Agency Coordination

From: Suzanne Walsh
To: John Wimberley
Subject: RE: Early Coordination Request-CSJ 2635-04-034 SL 335 Segment C-1
Date: Thursday, November 07, 2019 1:41:06 PM

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 John,

Thank you for committing to implement the additional BMPs listed below for the SL 335 Segment C-1 project.

Thank you for submitting the following project for early coordination: SL 335 from SW 9th Avenue to FM 1719 (CSJ: 2635-04-034). TPWD appreciates TxDOT's commitment to implement the practices listed in the Tier I Site Assessment form submitted on August 20, 2019. 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

I look forward to working with you on other Amarillo District projects.

Sincerely,

Suzanne Walsh
Transportation Conservation Coordinator
(512) 389-4579

From: John Wimberley <John.Wimberley@txdot.gov>
Sent: Thursday, November 7, 2019 1:16 PM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Subject: RE: Early Coordination Request-CSJ 2635-04-034 SL 335 Segment C-1

- The District agrees to include in the EPIC sheet for this project the following BMPs:
  1) Water Quality BMPs per the 2017 BMP PA
  2) Contractors advised of the American badger, thirteen-lined squirrel, black-tailed prairie dog, and cave myotis bat and to avoid harming the species if encountered

3) Terrestrial Reptile BMPs per the 2017 BMP PA for the western rattlesnake, western hognose snake, massasauga, and western box turtle (as these BMPs are already being applied to the Texas Horned Lizard)

4) The following applicable Amphibian and Aquatic Reptile BMPs per the 2017 BMP PA:

a) Contractors will be advised of potential occurrence in the project area, and to avoid harming the species if encountered

b) Use drill seeding, hydromulching, or hydroseeding in areas for soil stabilization and/or revegetation of disturbed areas where feasible. If erosion control blankets are needed, use types that contain no plastic netting or only loosely woven natural fiber

c) Project specific locations (PSLs) proposed within state-owned ROW should be located in uplands away from aquatic features

d) When work is directly adjacent to the water, minimize impacts to shoreline basking sites and overwinter sites where feasible

e) Avoid or minimize disturbing or removing downed trees, rotting stumps, and leaf litter, which may contain terrestrial amphibians, where feasible

Please contact me if you have any further questions.
Thanks,
John

John Wimberley
Environmental Coordinator
TxDOT-Amarillo District
Business (806) 356-3249

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Thursday, November 07, 2019 11:34 AM
To: John Wimberley <John.Wimberley@txdot.gov>
Subject: RE: Early Coordination Request-CSJ 2635-04-034 SL 335 Segment C-1

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Hi John,

Thank you for your email on 10/28/2019 with the additional project information, including that temporary crossings will be used for the project, existing pavement will be removed, and that the district has coordinated with the Wildcat Bluff Nature Center.

Per our conversation today, the district will also apply the following BMPs to the SL 335 Segment C-1 project:

- Water Quality BMPs per the 2017 BMP PA
- Contractors will be advised of the American badger, thirteen-lined squirrel, black-tailed prairie dog, and cave myotis bat and to avoid harming the species if encountered
- Terrestrial Reptile BMPs per the 2017 BMP PA for the western rattlesnake, western hoghose snake, massasauga, and western box turtle (as these BMPs are already being applied to the Texas Horned Lizard)

In regards to the Woodhouse toad, will the district be able to implement the Amphibian and Aquatic Reptile BMPs per the 2017 BMP PA in their entirety?

Thanks,
Suzanne

From: John Wimberley <John.Wimberley@txdot.gov>
Sent: Wednesday, October 30, 2019 5:05 PM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Subject: RE: Early Coordination Request-CSJ 2635-04-034 SL 335 Segment C-1

Thank You!
John

From: Suzanne Walsh [mailto:Suzanne.Walsh@tpwd.texas.gov]
Sent: Wednesday, October 30, 2019 5:04 PM
To: John Wimberley <John.Wimberley@txdot.gov>
Subject: RE: Early Coordination Request-CSJ 2635-04-034 SL 335 Segment C-1

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Thanks, John. I received the revised documents and will take a look over.

Suzanne

From: John Wimberley <John.Wimberley@txdot.gov>
Sent: Tuesday, October 29, 2019 7:21 AM
To: Suzanne Walsh <Suzanne.Walsh@tpwd.texas.gov>
Subject: FW: Early Coordination Request-CSJ 2635-04-034 SL 335 Segment C-1

I had to send the second attachment to you via Dropbox, as it was too big to be sent via email. Call me if you have any questions.
Thanks,
John

John Wimberley