Draft
Environmental Assessment

South Zarzamora Street, San Antonio District

Project limits: From US 90 to Jennings Avenue

CSJ Number: 0915-12-617

Bexar County, Texas

December 2023

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.

Table of Contents

List of Figures

List of Tables

List of Appendices

List of Acronyms

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

AADT	Average Annual Daily Traffic
AAMPO	Alamo Area Metropolitan Planning Organization
AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
ACM	Asbestos-Containing Material
ACT	Antiquities Code of Texas
AOI	Area of Influence
APE	Area of Potential Effects
BMPs	Best Management Practices
BNSF	BNSF Railway
CAA	Clean Air Act
CAD	Central Appraisal District
CAFE	Corporate Average Fuel Economy
CBRA	Coastal Barrier Resources Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CMAQ	Congestion Mitigation and Air Quality
CoSA	City of San Antonio
CPS	City Public Service
CWA	Clean Water Act
DOT	U.S. Department of Transportation
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act of 1981
FWCA	Fish and Wildlife Coordination Act
GHG	Greenhouse Gas
HPALM	Hybrid Potential Archeological Liability Map
HRSR	Historic Resources Survey Report
IBWC	International Boundary Water Commission
IPCC	Intergovernmental Panel on Climate Change
ISA	Initial Site Assessment
LCP	Lead-Containing Paint
LEP	Limited English Proficiency
MBTA	Migratory Bird Treaty Act
MMT	million metric tons
MOU	Memorandum of Understanding
mph	miles per hour
MS4	Municipal Separate Storm Sewer System
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSAT	Mobile Source Air Toxics
MTP	Metropolitan Transportation Plan
MVM	million vehicle miles
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act

NHPA	National Historic Preservation Act
NOI	Notice of Intent
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
PA	Programmatic Agreement
PM	particulate matter
PS&E	Plans, Specifications, and Estimates
RHA	Rivers and Harbors Act
ROW	right of way
SAL	State Antiquities Landmark
SAWS	San Antonio Water System
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Officer
SW3P	Storm Water Pollution Prevention Plan
TAQA	Transportation Air Quality Analysis
TCEQ	Texas Commission on Environmental Quality
TCMP	Texas Coastal Management Plan
TDM	Travel Demand Management
TERP	Texas Emissions Reduction Plan
THC	Texas Historical Commission
TIP	Transportation Improvement Program
TMDL	Total Maximum Daily Load
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TSM	Traffic System Management
TxDOT	Texas Department of Transportation
Uniform Act	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
VIA	VIA Metropolitan Transit
VMT	vehicle-miles of travel
VPD	vehicles per day

1.0 Introduction

The City of San Antonio (CoSA), in cooperation with the Texas Department of Transportation (TxDOT) San Antonio District, is proposing to realign South Zarzamora Street from US 90 to Jennings Avenue to construct a grade separation over the Frio City Road/Kirk Place and Union Pacific Railroad (UPRR) intersections in San Antonio, Bexar County, Texas (**Appendix A**). The proposed project would extend approximately 0.8 miles from B Street to Linares St.

This project is sponsored in part by federal funds. According to the 2019 Memorandum of Understanding (MOU) between the Federal Highway Administration (FHWA) and TxDOT, TxDOT has authority over the approval of this project. Therefore, environmental documentation is being prepared to federal standards. This Environmental Assessment (EA) will evaluate the proposed project's social, economic, and environmental impacts and determine whether such impacts warrant the preparation of an Environmental Impact Statement (EIS). The EA was prepared to comply with TxDOT and FHWA environmental policies and procedures according to the National Environmental Policy Act (NEPA) (42 U.S. Code [USC] 4321 et seq.).

The Draft EA will be made available for public review and comment. Following the comment period, CoSA and TxDOT will consider all comments submitted. If TxDOT determines that the proposed project would not have significant adverse impacts, a Finding of No Significant Impact (FONSI) would be prepared and made available to the public.

2.0 Project Description

2.1 Existing Facility

Within the project limits, South Zarzamora Street is a five-lane, undivided, non-controlled access, at-grade, principal arterial roadway within an existing right-of-way (ROW) width of approximately 100 feet. Project photographs are located in **Appendix B**.

The existing signalized intersection at South Zarzamora Street and Frio City Road forms a five-legged intersection with Kirk Place, and a UPRR railroad crosses South Zarzamora Street south of the intersection. The existing typical section of South Zarzamora Street consists of two 11-foot travel lanes in each direction, a 12-foot center left-turn lane, 4-foot bike lanes in each direction, and 6-foot sidewalks in each direction (**Appendix D**). Drainage is accommodated within the project limits via a curb-and-gutter system.

2.2 Proposed Facility

The proposed project would extend for 0.8 miles along South Zarzamora Street, from approximately 50 feet north of B Street to Linares Street (**Appendix A**). The project would realign South Zarzamora Street to construct a grade separation over the Frio City Road/Kirk Place and UPRR intersections, which would require the acquisition of ROW (primarily from the east side of the roadway), resulting in a new ROW width ranging from

approximately 100 to 300 feet. The project would require the permanent closure of several local roadways, including Walton Avenue, East Thompson Place, and Barrett Place; these local roadways would be permanently closed from South Zarzamora Street to Phyllis Street.

From Jennings Avenue to Humble Avenue/Walton Avenue, the proposed project would remove the existing center left-turn lane, add a southbound left-turn lane, and replace the existing bike lane and sidewalk on the east side of the roadway with a shared-use path. In this section, South Zarzamora Street would typically consist of two at-grade 10- to 11-foot travel lanes in each direction, a 0- to 13-foot southbound left-turn lane, a 5-foot bike lane and a 6-foot sidewalk on the west side of the roadway, and a 10-foot shared-use path on the east side of the roadway. A traffic signal would be added at Jennings Avenue.

From Humble Avenue/Walton Avenue to Harriman Place, northbound and southbound overpasses would be constructed to provide grade separation over the Frio City Road/Kirk Place and UPRR intersections. The overpasses would consist of two bridges (northbound and southbound bridges), each with two 12-foot travel lanes and a 10-foot shared-use path. In this section, South Zarzamora Street would be realigned. At-grade South Zarzamora Street would have one 12-foot travel lane in each direction, with a 10-foot shared-use path on both sides of the roadway. Approaching Frio City Road/Kirk Place, an 11-foot northbound, left-turn lane would be provided, and the existing Frio City Road/Kirk Place intersection would be reconfigured. In addition, an access road would be constructed on the west side of South Zarzamora Street from Humble Avenue to Barrett Place, consisting of one 12-foot travel lane in each direction and a 6-foot outer sidewalk.

From Harriman Place to US 90, the proposed project would replace the existing sidewalks with shared-use paths. In this section, South Zarzamora Street would typically consist of three 12-foot travel lanes in each direction, a 2- to 13-foot raised median, and 10- to 24-foot shared-use paths on both sides of the roadway.

Work south of Jennings Avenue to Linares Street and north of US 90 to B Avenue would be limited to pavement markings, mill, and overlay.

Appendix D provides proposed typical sections of South Zarzamora Street.

The project would also include work on other area roadways. On Phyllis Street, a 5-foot sidewalk would be added to the west side of the roadway from Walton Avenue to Barrett Place. On Harriman Place, 5-foot sidewalks, curb, and pedestrian rail would be added to both sides of the roadway. West of South Zarzamora Street, Darby Boulevard would terminate at a proposed cul-de-sac, and Darby Boulevard would no longer have direct access across South Zarzamora Street. East of South Zarzamora Street, the existing travel lane on Darby Boulevard would be narrowed, and a 6-foot sidewalk would be added to the south side of the roadway. On the US 90 eastbound exit ramp (west of South Zarzamora Street), a 12-foot right-turn lane would be added.

The project would also include drainage improvements, signalized intersection upgrades, bicycle and pedestrian improvements, utility replacements and adjustments, and bus route adjustments. In addition, signing, pavement markings, illumination, and the construction of retaining walls would be included, where

appropriate. Drainage improvements would include the installation of storm sewer pipes and curb inlets. The project would also involve VIA bus stop relocations. The project schematic can be found in **Appendix C**.

Project costs, including engineering design, ROW acquisition, and construction, would be primarily federally funded and supplemented by local funding. Total project costs are estimated to be approximately $28.2 million.

2.3 Logical Termini and Independent Utility

Federal regulations require that federally funded transportation projects have logical termini (23 Code of Federal Regulations [CFR] 771.111(f)(1)). Simply stated, this means that a project must have rational beginning and end points. Those end points may not be created simply to avoid proper analysis of environmental impacts. The logical termini for the project are US 90 and Jennings Avenue. US 90 is an east-west highway and a major traffic generator for Bexar County. Jennings Avenue was chosen as the southern logical terminus as it is an east-west local roadway that provides access to Frio City Road and SH 371 to the west, and Nogalitos Street to the east. The project would transition to existing pavement just north of Linares Street at the south end and at B Street at the north end.

Federal regulations also require that a project have independent utility and be a reasonable expenditure even if no other transportation improvements are made in the area (23 CFR 771.111(f)(2)). This means a project must be able to provide benefit by itself and that the project not compel further expenditures to make the project useful. Stated another way, a project must be able to satisfy its purpose and need with no other projects being built. The proposed project has independent utility because the proposed improvements would be usable to a reasonable expenditure even if no additional improvements in the area are made. The project would not preclude other foreseeable transportation improvements within the project area. The proposed project is needed due to inadequate operational efficiency and reduced safety due to the existing configuration of the five-legged, signalized South Zarzamora Street/Frio City Road/Kirk Place intersection coupled with its proximity to the at-grade South Zarzamora Street/UPRR intersection, resulting in reduced mobility and safety for vehicular traffic, bicyclists, and pedestrians. Since the project stands alone, it cannot and will not irretrievably commit future federal funds.

Lastly, 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's construction does not prevent future options for developing other reasonably foreseeable transportation improvements. The proposed project has independent utility and would not restrict considering alternatives for other foreseeable transportation improvements.

2.4 Planning Consistency

The proposed project is consistent with the Alamo Area Metropolitan Planning Organization's (AAMPO) *Mobility 2050 Metropolitan Transportation Plan (MTP)*. The proposed project is not currently listed in the 2023-2026 Transportation Improvement Program (TIP). The project will be consistent prior to the environmental decision.

3.0 Purpose and Need

3.1 Need

The proposed project is needed due to inadequate operational efficiency and reduced safety due to the existing configuration of the five-legged, signalized South Zarzamora Street/Frio City Road/Kirk Place intersection coupled with its proximity to the at-grade South Zarzamora Street/UPRR intersection. This configuration causes reduced mobility and safety for vehicular traffic, bicyclists, and pedestrians.

3.2 Supporting Facts and Data

South Zarzamora Street is a primary north-south arterial roadway connecting US 90 on the north and Southwest Military Drive and Pan Am Expressway on the south. There are currently no other grade-separated, north-south roadways in the project area. Due to the existing configuration (i.e., five-legged intersection) of the South Zarzamora Street/Frio City Road/Kirk Place intersection and its proximity to the UPRR crossing to the south, the existing intersection does not operate efficiently.

3.2.1 Existing Intersection Geometry

The existing signalized intersection at South Zarzamora Street and Frio City Road forms a five-legged intersection with Kirk Place, and a railroad crosses South Zarzamora Street just south of the intersection (**Figure 3-1**). South Zarzamora Street and Frio City Road intersect at an acute 35-degree angle, making the intersection complex for turning movements and signalized operation (RJRA, 2017).

According to the American Association of State Highway and Transportation Officials (AASHTO), "multi-leg intersections should be avoided wherever practical" (AASHTO, 2001). Multi-leg intersections include those with five or more intersection legs, such as the South Zarzamora Street/Frio City Road/Kirk Place intersection. These types of intersections are often inefficient and awkward for the traveling public.

Compared to a standard four-way intersection, the existing five-legged signalized intersection results in more conflict points. "Conflict points" are locations in or on the approaches to an intersection where vehicle paths merge, diverge, or cross. The complexity of an intersection increases with an increasing number of approach legs to the intersection. The number of potential conflicts for all users increases substantially at intersections with more than four legs (FHWA, 2004).

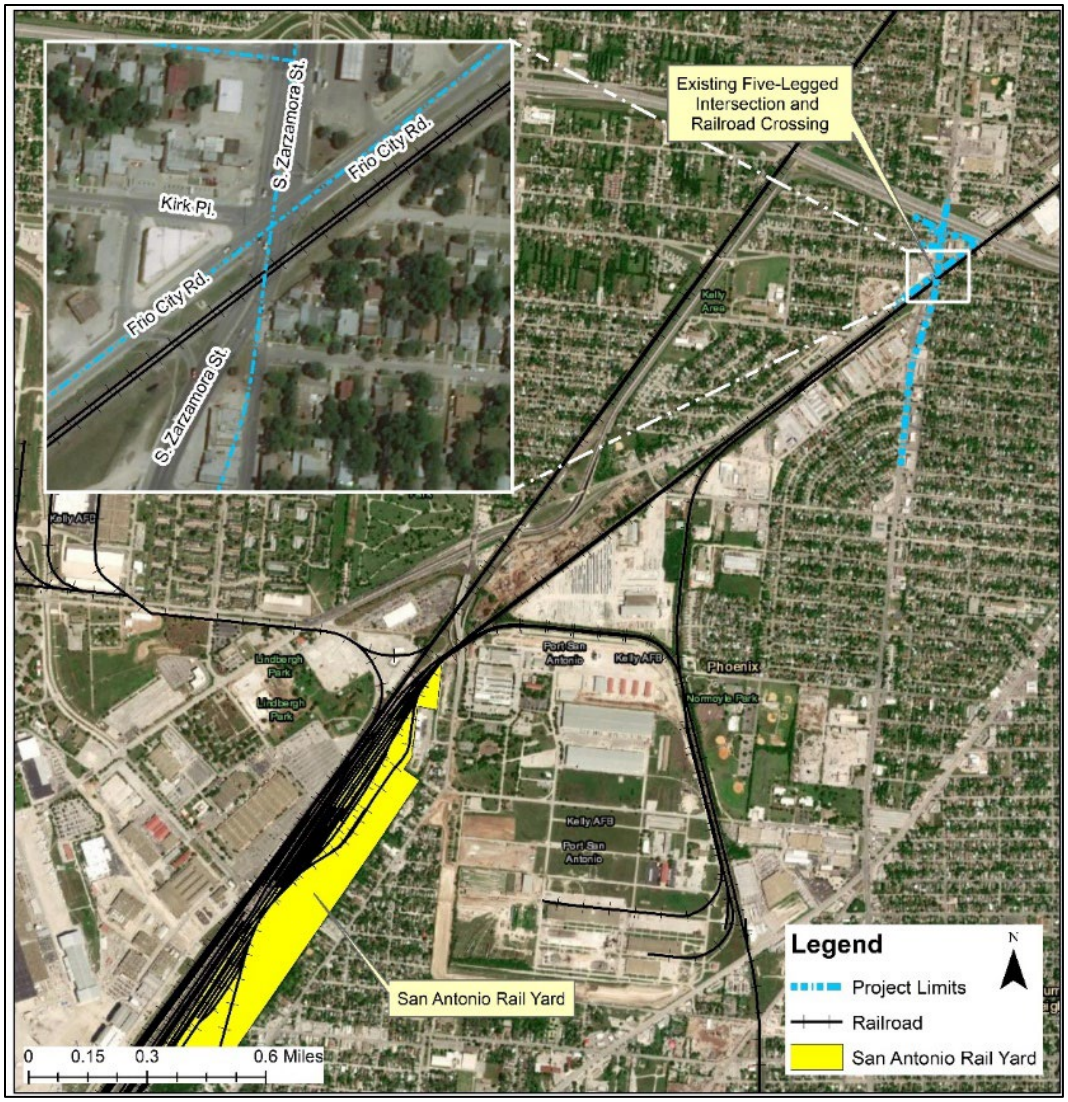


Figure 3-1: Location of Existing Five-Legged Intersection and Nearby Rail Yard

More than other types of intersections, multi-leg intersections can create issues for pedestrians and bicyclists. Multi-legged intersections increase crossing distances, may pose navigation difficulties for pedestrians with visual impairments, and can reduce the visibility of pedestrians and bicyclists to motorists. Common pedestrian/bicycle issues seen at multi-leg intersections include the following (CDOT, 2010):

- Pedestrians and bicyclists approaching from an acute angle may not be visible to motorists.
- The bicyclists' path is not evident.
- Longer crossing distances.
- Longer delays for pedestrians and bicyclists at signalized multi-leg intersections.
- More conflict points between pedestrians, bicyclists, and turning motorists.

3.2.2 Train Traffic Data

According to the U.S. Department of Transportation (DOT) Crossing Inventory Form (updated October 14, 2022), approximately 35 trains travel daily on the double tracks at the South Zarzamora Street/UPRR crossing, averaging almost 1.5 trains per hour. UPRR and BNSF Railway (BNSF) operate on the railroad tracks. Records from the inventory form are included in **Table 3-1**.

Table 3-1: Crossing Inventory Data

	Data
Estimated Number of Daily Train Movements	35
From 6 a.m. to 6 p.m.	18
From 6 p.m. to 6 a.m.	17
Maximum Speed	60
Average Speed	15-20
Signalized?	Yes

Source: USDOT, 2022

One of UPRR's busiest rail yards is located approximately 1.6 miles south of the South Zarzamora Street/UPRR intersection along Frio City Road (see **Figure 3-1**). Frio City Road currently runs parallel to the UPRR. Increased travel delays at the existing intersection occur due to frequent train crossings (35 estimated daily train crossings), the slowing down of train speed (average speed of 15 to 20 miles per hour [mph]), and the occasional complete stopping of trains across the intersection. The stopping and slowing down of trains are reportedly due to the proximity of UPRR's San Antonio Rail Yard to the south of the crossing (RJRA, 2016).

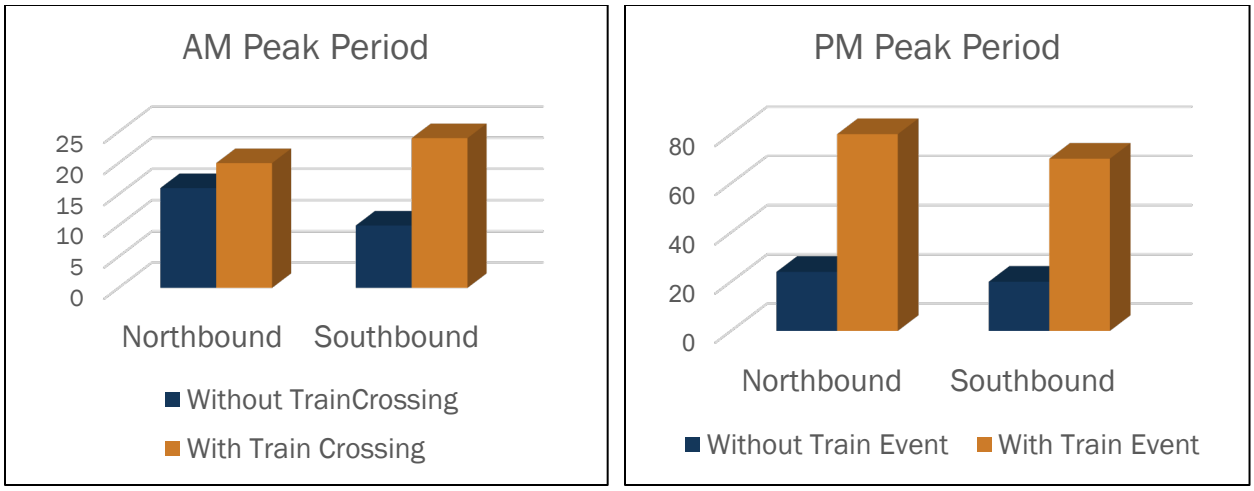
3.2.3 Queuing during Train Crossings

The existing at-grade crossing is impeded for an extended time when trains stop on the railroad tracks, blocking roadway traffic. In 2014, a traffic analysis was conducted by GKW Engineers for the project. This analysis evaluated queuing at the South Zarzamora Street/UPRR intersection approaches for both the AM (i.e., morning) and PM (i.e., evening) peak periods during and not during train crossings (**Table 3-2**, **Figure 3-2**).

Table 3-2: Number of Vehicles in Queue

Scenario (Approach)	AM Peak Period	PM Peak Period
Queue Length without Train Crossing (northbound approach)	8 vehicles per lane (16 total vehicles)	11 vehicles per lane (24 total vehicles)
Queue Length without Train Crossing (southbound approach)	5 vehicles per lane (10 total vehicles)	10 vehicles per lane (20 total vehicles)
Queue Length with Train Crossing (northbound approach)	10 vehicles per lane (20 total vehicles)	40 vehicles per lane (80 total vehicles)
Queue Length with Train Crossing (southbound approach)	12 vehicles per lane (24 total vehicles)	35 vehicles per lane (70 total vehicles)

Source: RJRA, 2016



Source: RJRA, 2016

Figure 3-2: Number of Vehicles in Queue with and without a Train Crossing

AM Peak Period – During the AM peak period, when there is no train crossing, there are approximately 16 vehicles in the northbound queue and ten vehicles in the southbound queue. However, during a train crossing, the number of vehicles in the queue increases by approximately 22 percent (total of 20 vehicles) for the northbound approach and by approximately 82 percent (total of 24 vehicles) for the southbound approach. **Figure 3-3** shows the average queue lengths in the AM peak period during and not during a train crossing.

Source: RJRA, 2016

Figure 3-3: Typical Queue Lengths in the AM Peak Period

PM Peak Period – In the PM peak period, queuing conditions worsen even further when there is a train crossing. Without a train crossing, there are approximately 24 vehicles in the northbound queue and 20 vehicles in the southbound queue. During a train crossing, the number of vehicles in queue increases by approximately 108 percent (total of 80 vehicles) for the northbound approach and by approximately 111 percent (total of 70 vehicles) for the southbound approach. **Figure 3-4** shows the average queue lengths in the PM peak period during and not during a train crossing. The queue lengths in the PM peak period are substantial, with the northbound approach backing up past West Thompson Place and the southbound approach backing up to Fran Fran Street north of US 90.

Source: RJRA, 2016

Figure 3-4: Typical Queue Lengths in the PM Peak Period

3.2.4 Delays during Train Crossings

A traffic signal cycle is the amount of time required to display all phases for each direction of an intersection before returning to the starting point, or the first phase of the cycle. The cycle length of the South Zarzamora Street/Frio City Road/Kirk Place intersection is 90 seconds (1.5 minutes) for both peak periods.

In the AM peak period, following a train crossing under existing conditions, the northbound approach will typically clear within one signal cycle (1.5 minutes), without further delay. However, the southbound approach typically requires two signal cycles (3 minutes) to clear the queue. In the PM peak period, it typically takes four signal cycles (6 minutes) to clear the northbound and southbound queues following a train crossing under existing conditions (RJRA, 2016). These delays are in addition to the delays experienced during the train event itself. Based on the traffic analysis report conducted for the project (RJRA, 2017), train events vary between 30 seconds to 5 minutes.

3.2.5 Crash Analysis

The intersection of South Zarzamora Street, Frio City Road, and Kirk Place handles a high volume of vehicular and rail traffic. The 2020 traffic analysis analyzed the crash history along South Zarzamora Street from Jennings Avenue to US 90 to determine the existing safety conditions. For this analysis, crash frequency and the crash rate per 100 million vehicle miles (MVM) were determined. This data was compared to the average statewide crash rates for urban four-lane, undivided roadways by year (PD, 2020). **Table 3-3** summarizes the crash analysis for the corridor. Based on this analysis, the crash rate on South Zarzamora Street from 2013 to 2018 was 2.7 to 5.1 times higher than the statewide average crash rate for an urban, four-lane, undivided roadway.

Table 3-3: Crash Rates in the Project Limits

Year	Total Crashes	AADT (vpd)	Zarzamora Crash Rate (per 100 MVM)	Statewide Crash Rate (per 100 MVM)
2013	28	19,080	804.11	234.21
2014	28	20,244	757.88	272.54
2015	22	15,457	779.89	287.32
2016	46	16,957	1486.44	290.24
2017	34	16,773	1110.72	280.53
2018	34	13,568	1373.09	283.09
2019*	30	-	-	-

Source: PD 2020

AADT = Average Annual Daily Traffic; VPD = vehicles per day

*2019 crash data was not complete at the time of analysis.

The crash analysis also analyzed crash severity and manner of crash for the corridor (**Table 3-4** and **Table 3-5**). In 2013, one crash at the South Zarzamora Street/Frio City Road/Kirk Place intersection resulted in two fatalities (one from each vehicle). Approximately 27 percent of the crashes from these six years involved some form of injury. Most crashes (34 percent) were rear-end collisions, while approximately 18 percent were angle crashes which tend to be more severe. Since 2014, eight crashes along the project limits involved pedestrians or bicyclists (PD, 2020).

Table 3-4: Crash History by Severity

Severity	2013	2014	2015	2016	2017	2018	2019	Total	%
Non-Incapacitating Injury	3	2	0	1	3	5	2	16	**3**
Not Injured	16	21	16	35	26	20	22	156	**70**
Possible Injury	8	2	6	5	4	9	5	39	**18**
Suspected Serious Injury	0	0	0	2	0	0	1	3	**1**
Fatal	1	0	0	0	0	0	0	1	**0**
Unknown	0	3	0	3	1	0	0	7	**3**
Total	**28**	**28**	**22**	**46**	**34**	**34**	**30**	**222**	**100**

Source: PD, 2020

Table 3-5: Crash History by Manner of Collision

Manner of Collision	2013	2014	2015	2016	2017	2018	2019	Total	%
Angle – both going straight	5	2	5	8	3	2	4	29	**13**
Angle – one straight, one backing	0	0	0	0	1	0	2	3	**1**
Angle – one straight, one left turn	1	0	2	2	2	1	1	9	**4**
Angle- one straight, one right turn	0	0	0	1	0	0	0	1	**0**
Angle- one right turn, one left turn	0	0	0	0	1	0	0	1	**0**
Angle- one right turn, one stopped	0	0	0	0	1	0	0	1	**0**
One Vehicle – going straight	1	7	3	2	4	6	3	26	**12**
One Vehicle – turning left	0	1	0	1	1	0	2	5	**2**
Opposite Direction – both going straight	1	0	0	0	0	5	1	7	**3**
Opposite Direction – one backing, one stopped	0	0	0	0	0	0	1	1	**0**
Opposite Direction – one straight, one backing	0	0	0	1	0	1	0	2	**1**
Opposite Direction – one straight, one left turn	2	0	1	6	2	5	4	20	**9**
Same Direction – both going straight (rear end)	2	3	2	2	0	2	3	14	**6**
Same Direction – both going straight (sideswipe)	2	4	0	8	5	2	1	22	**10**
Same Direction – both left turn	0	0	0	0	0	0	1	1	**0**
Same Direction – both right turn	0	0	0	1	1	0	0	2	**1**
Same Direction – one straight, one left turn	1	2	2	3	1	0	2	11	**5**
Same Direction – one straight, one right turn	0	0	1	1	0	1	0	3	**1**
Same Direction – one straight, one stopped	13	8	6	10	12	9	4	62	**28**
Other	0	1	0	0	0	0	1	2	**1**
Total	**28**	**28**	**22**	**46**	**34**	**34**	**30**	**222**	**100**

Source: PD, 2020

3.3 Purpose

The purpose of the proposed project is to improve mobility and safety on South Zarzamora Street within the project limits.

4.0 Alternatives

4.1 Build Alternative

The proposed project described in **Section 2.2** is the Build Alternative (formerly called "Alternative 3"). The Build Alternative would meet the proposed project's purpose and need and improve mobility and safety on South Zarzamora Street within the project limits. More specifically, the Build Alternative would:

- Improve mobility and travel delays for through traffic during a train crossing.
- Offer both at-grade and overpass crossing options at the railroad.
- Allow local access to neighborhoods and businesses via at-grade South Zarzamora Street and the proposed access road.
- Provide safer access for pedestrians and bicyclists.

4.2 No-Build Alternative

Under the No-Build Alternative, South Zarzamora Street would not be improved. The No-Build Alternative assumes that no transportation improvements beyond the continued maintenance of the existing facility would occur. This alternative would not improve mobility or safety on South Zarzamora Street. Therefore, it would not meet the project's purpose and need to improve mobility and safety along South Zarzamora Street, and the Build Alternative is the preferred alternative. However, the No-Build Alternative will be carried forward as a baseline for comparison to the preferred alternative.

4.3 Preliminary Alternatives Considered but Eliminated from Further Consideration

Preliminary alternatives considered but eliminated from further consideration are described below.

4.3.1 Alternative 1 – South Zarzamora Elevated "T" at UPRR (overpass)

Alternative 1 included the construction of an alternate route, with two elevated through lanes, from South Zarzamora Street to Frio City Road. This alternative would include the construction of two at-grade access roads on South Zarzamora Street for those wanting to continue north on the existing South Zarzamora Street. This alternative would have required the reconstruction of Frio City Road to raise and connect Frio City Road with the alternate route. Under this alternative, there would be no change to the existing at-grade railroad crossing on South Zarzamora Street. This alternative was eliminated from further analysis because it would not

meet the project's purpose and need to improve safety because it would not reduce at-grade conflicts with the railroad.

4.3.2 Alternative 2 – Depressed Frio City Road and South Zarzamora Street "T" Alignment (underpass)

Similar to Alternative 1, Alternative 2 would include the construction of an alternate route from South Zarzamora Street to Frio City Road. However, under this alternative, the alternate route would be depressed as an underpass rather than elevated. In addition, this alternative would have required the construction of a new railroad bridge structure. Additionally, this alternative would have required the reconstruction of Frio City Road to connect with the alternate route. Under this alternative, there would be no change to the existing at-grade railroad crossing on South Zarzamora Street. This alternative was eliminated from further analysis because it would not meet the project's purpose and need to improve safety because it would not reduce at-grade conflicts with the railroad.

4.3.3 Alternative 4 – South Zarzamora Street Overpass at UPRR (without Zarzamora Street at grade)

Alternative 4 is similar to the Build Alternative in that it would include constructing an overpass on South Zarzamora Street to cross the UPRR railroad. However, under this alternative, there would be no at-grade South Zarzamora Street below the overpass, and an access road would not be provided. This alternative was eliminated from further analysis because it would substantially decrease access and connectivity to local surface streets and neighborhoods. Also, it would not provide bicycle and pedestrian accommodations at grade. Other downfalls of this alternative include that it would limit access from the east side of South Zarzamora Street to the west and north to an existing substantial at-grade rail crossing on Darby Boulevard and Harriman Place; it would require the reconstruction of Darby Boulevard to a collector roadway; and it would require increased signage within the neighborhood to guide motorists, bicyclists, and pedestrian to accessible routes.

5.0 Affected Environment and Environmental Consequences

In support of this EA, the following technical documentation was prepared:

- Archeological Background Study (TxDOT, 2022a)
- Historical Resources Survey Report (TxDOT, 2022b)
- Historical Studies Research Design (TxDOT, 2022c)
- Project Coordination Request for Historical Studies Project (TxDOT, 2022d)
- Surface Water Analysis Form (TxDOT, 2022e)
- Traffic Noise Analysis Report (TxDOT, 2022f)
- Community Impacts Assessment Technical Report Form (TxDOT, 2023a)

- Documentation of Texas Parks and Wildlife Department Best Management Practices Form (TxDOT, 2023c)
- Hazardous Materials Initial Site Assessment (ISA) (TxDOT, 2023d)
- Indirect Impacts Technical Report (TxDOT, 2023e)
- Species Analysis Form (TxDOT, 2023f)
- Species Analysis Spreadsheet (TxDOT, 2023g)

These technical reports[1] may be inspected and copied upon request at the TxDOT San Antonio District office located at 4615 Northwest Loop 410, San Antonio, Texas 78229.

5.1 Right of Way/Displacements

The Build Alternative would require the acquisition of approximately 2.6 acres of additional ROW and 0.6 acres of temporary construction easements (**Appendix C** and **Appendix E, Exhibit 1**). It is estimated that there would be eight potential displacements resulting from the Build Alternative: six commercial facilities (C-1 through C-6) and two residential properties (R-1 and R-2) (**Table 5-1** and **Appendix E, Exhibit 2**). The potential residential displacements consist of two single-family homes. The potential commercial displacements include a transmission shop, an auto glass shop, an auto repair shop, two restaurants, and one vacant commercial warehouse. For additional information, refer to the Community Impacts Assessment Technical Report Form (TxDOT, 2023a).

Table 5-1: Potential Displacements

Map ID #*	Bexar CAD Property ID	Displacement Type	Business Name (if applicable)	Address
C-1	1050038	Commercial	N/A	2914 S. Zarzamora St.
C-2	1050039	Commercial	Nogalitos Gear Transmission Service	2910 S. Zarzamora St.
C-3	386003	Commercial	San Antonio Auto Glass	2818 S. Zarzamora St.
C-4	386002	Commercial	Ozuna's Automotive	2802 S. Zarzamora St.
C-5	386000	Commercial	Oscar's Taco House	705 Barrett Pl.
C-6	386001	Commercial	El Comalito	2702 S. Zarzamora St.
R-1	147117	Residential	N/A	663 Barrett Pl.
R-2	147086	Residential	N/A	659 Taft Blvd.

Source: TxDOT, 2023a

*The Map ID #s refers to the numbers shown in **Appendix E, Exhibit 2**.

[1] Note: The dates following each technical report indicate the year that the report was finalized and approved. The lowercase letters correspond with the sequence of the report's reference in **Section 10.0**, References.

CoSA would provide relocation resources to all displaced persons without discrimination in a manner consistent with DOT policy as mandated by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended in the Surface Transportation and Uniform Relocation Assistance Act of 1987 (the Uniform Act). All property owners from whom land is needed are entitled to just compensation for their property. Just compensation is based on the fair market value of the property. CoSA would also provide payment and services to aid in the movement to a new location.

The United States and Texas Constitutions provide that no private land may be taken for public purposes without adequate compensation. CoSA would conduct all ROW acquisitions and relocations per the Uniform Act, and relocation resources would be made available to all residential and business relocatees without discrimination.

Under the No-Build Alternative, the existing South Zarzamora Street would remain as-is, and normal, routine maintenance would be conducted. No ROW acquisition would be required, and no displacements or relocations would occur.

5.2 Land Use

The proposed project is located in a highly urbanized area of San Antonio within Bexar County. Current land use patterns in the study area consist primarily of single-family residential properties, with scattered multi-family residential, commercial, industrial, and recreational uses. Land use is mixed-use, with adjacent commercial, industrial, and single-family residential properties within and adjacent to the proposed project area (TxDOT, 2023a).

The Build Alternative would change approximately 2.6 acres of land to transportation use. Although eight displacements and minor conversion of land to transportation infrastructure (e.g., pavement, drainage, etc.) would occur, the proposed project is not anticipated to substantially alter the existing land use in the area.

The No-Build Alternative would not convert current land uses to transportation uses or maintained ROW. Therefore, there would be no impacts to land use because of the No-Build Alternative. Land use in the area would remain as-is or change to other land uses as the community and economy warrant.

5.3 Farmlands

The Farmland Protection Policy Act (FPPA) does not apply.

5.4 Utility Relocation

It is reasonably foreseeable that utilities will have to be relocated due to this project. Several utilities, including San Antonio Water System (SAWS) water and sanitary sewer lines and City Public Service (CPS) natural gas and underground electric lines, are anticipated to be impacted under the construction of the proposed project. The impacts resulting from the removal of any utilities from within the existing roadway ROW (e.g., construction

noise, potential disturbance to archeological resources, and potential impacts to species habitat) have been considered as part of the overall project footprint impacts within this EA. The displaced utilities are expected to be re-installed within the roadway ROW. The potential impacts resulting from the re-installation of the displaced utilities within the roadway ROW have been considered as part of the overall project footprint impacts (e.g., construction noise, potential disturbance to archeological resources, and potential impacts to species habitat) within this EA.

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

5.5 Bicycle and Pedestrian Facilities

Existing bicycle and pedestrian accommodations within the project limits include a 4-foot bike lane in both directions and 6-foot sidewalks on both sides of South Zarzamora Street. Under the implementation of the Build Alternative, bicycle and pedestrian accommodations would be maintained or improved, including replacing existing sidewalks and bike lanes with shared-use paths throughout the project limits except from Jennings Avenue to Humble Avenue/Walton Avenue, where the existing sidewalk and bike lane on the west side of the roadway would remain but the bike lane would be widened. In addition, the project would include bus stop relocations to ensure the project area would maintain access to VIA Metropolitan Transit (VIA) services. Therefore, the project would comply with TxDOT's Bicycle Accommodation Design Guidance and improve the current accessibility for bicyclists and pedestrians throughout the project area. TxDOT's guidance implements the DOT's Policy Statement on Bicycle and Pedestrian Accommodations and FHWA policy.

Under the No-Build Alternative, bicyclists and pedestrians would continue to use the existing bicycle and pedestrian accommodations in the project area.

5.6 Community Impacts

5.6.1 Displacements

The proposed project would potentially displace two single-family residences, five businesses, and one vacant commercial structure, subject to final design considerations. However, according to the 2023 appraised values of these residences and businesses and online searches conducted in April 2023, there appear to be adequate replacement properties of comparable type, size, and cost in the nearby vicinity. None of the proposed business displacements are business types unique to the area. None serve specific populations such as persons with disabilities, children, the elderly, a specific ethnic group, low-income persons, or a specific religious group (TxDOT, 2023a).

The No-Build Alternative would not result in any residential, commercial, or other displacements, and therefore would not require relocation assistance.

5.6.2 Access and Travel Patterns

Under the implementation of the proposed project, South Zarzamora Street would be realigned, and overpasses (one northbound and one southbound) would be constructed from Humble Avenue/Walton Avenue

to Harriman Place. The proposed overpasses would provide uninterrupted travel for commuters and through traffic by bypassing the existing at-grade railroad crossing and five-legged intersection. The proposed overpasses are anticipated to improve mobility and safety in the area for motorists, pedestrians, and bicyclists. South Zarzamora Street would also include a local, at-grade road below the proposed overpasses to provide neighborhood and local business access. Several cross-streets would be permanently closed from Phyllis Street to the existing South Zarzamora Street, including Walton Avenue, East Thompson Place, and Barrett Place. These local roadways would no longer have direct access to South Zarzamora Street. In addition, the project would result in several cross-streets being converted to right-in/right-out only at South Zarzamora Street, including Caroll Street, Taft Boulevard, and Harriman Place. Darby Boulevard to the west of South Zarzamora Street would be converted to an eastbound one-way-only street. Access and travel patterns for local, at-grade traffic would be different from existing conditions, however, access would be maintained via the local street network.

Pedestrian and bicycle mobility and safety would be improved under the proposed project due to bicycle and pedestrian accommodations being provided via shared-use paths at grade and on the proposed overpasses. By adding shared-use paths on the overpasses, bicyclists and pedestrians would be provided a safe way to bypass the at-grade railroad crossing and five-legged intersection. The shared-use paths would provide improved safety for users of these modes by separating their paths from vehicular traffic via physical offsets (on the at-grade road) and barrier rail (on the overpasses) (TxDOT, 2023a).

The No-Build Alternative would make no beneficial changes to access or travel patterns. In addition, the No-Build Alternative would not improve mobility and safety on South Zarzamora Street and would not address the purpose and need for the project.

5.6.3 Community Cohesion

Although South Zarzamora Street already provides some level of separation for portions of the neighborhood located west and east of the roadway, the proposed project is anticipated to increase this perceived sense of separation due to the permanent closure and loss of direct access to South Zarzamora Street for residences and businesses along Walton Avenue, West Thompson Place, and Barrett Place. Similarly, converting several cross-streets and businesses to right-in/right-out only may increase the perceived level of separation in the community study area. These cross-streets and businesses would maintain access to South Zarzamora Street by utilizing the local street network. However, the perceived sense of separation may increase due to the proposed project.

Alternatively, constructing an overpass over the South Zarzamora Street at-grade railroad crossing would improve mobility, safety, and travel times for through-traffic, improving the sense of community cohesion north and south of the railroad.

The proposed project is anticipated to improve community cohesion for bicyclists and pedestrians by providing bicycle and pedestrian accommodations at grade and on the proposed overpasses and separating these users from vehicular traffic (TxDOT, 2023a).

The No-Build Alternative would not improve community cohesion for communities north and south of the railroad, and as future traffic conditions worsen, community cohesion between communities in the project area could decrease. Under the No-Build Alternative, local cross-streets would continue to have direct access to South Zarzamora Street, and no changes in community cohesion between communities west and east of South Zarzamora Street would be anticipated.

5.6.4 Environmental Justice/Limited English Proficiency

There are 325 census blocks with a resident population in the community study area, and every block consists of minorities representing 50 percent or more of the total population. Hispanics and Latinos comprise approximately 94 percent of the minority population. Five of the 18 census block groups within the study area also consist of a low-income population, including all block groups adjacent to the proposed project.

It is anticipated that no disproportionately high and adverse impacts on minority or low-income populations would occur under the proposed project. Although the entire community study area consists of environmental justice (EJ) census geographies, comparable replacement properties are available in the community study area for the potential displacements. There are no displacements to unique business types that EJ populations may use, changes in access and travel patterns would not affect services for EJ populations and access to residences, businesses, and services would be maintained. Although EJ populations would not be truly isolated or separated as a result of the project, the project could increase a perceived sense of separation, which could impact EJ populations to some extent.

Approximately 23 percent of the population over the age of five in the community study area speak English "less than very well," with Spanish being their primary language. The July 2022 Virtual Public Meeting with In-Person Option was held in English and Spanish. Any forthcoming public involvement will also be held in both languages (TxDOT, 2023a).

The No-Build Alternative would have no targeted impacts to EJ or LEP populations. Increased congestion and reduced mobility are anticipated as a result of not implementing the Build Alternative, which may result in adverse impacts to the communities in the project area, including EJ and LEP populations. Beneficial impacts from the Build Alternative, including improving mobility and enhanced safety, would not be attained under the No-Build Alternative and would be unavailable to all communities, including EJ and LEP populations.

5.7 Visual/Aesthetic Impacts

Permanent and temporary visual impacts due to the construction of the overpasses, construction activities, and displacements of residences and commercial businesses are expected. Existing views of the proposed project area are shown in the project photographs in **Appendix B**.

The construction of two overpasses is anticipated to change existing sight lines but is not anticipated to block any views. There are no existing landscaping or decorative features that would be impacted. Although not part of CoSA's design for the proposed project, CoSA is also studying potential aesthetic treatments for the overpasses, including the opportunity for landscaping.

Under the No-Build Alternative, there would be no impact (adverse or beneficial) on the visual aesthetics of the area.

5.8 Cultural Resources

Evaluation of impacts on cultural resources has been conducted under Section 106 of the National Historic Preservation Act (NHPA) in accordance with the Programmatic Agreement among FHWA, TxDOT, the Texas State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation (ACHP) Regarding the Implementation of Transportation Undertakings.

5.8.1 Archeology

A desktop archeological background study in 2022 determined that the project's area of potential effects (APE) has been extensively disturbed by road construction, widening, and maintenance; associated roadways; bridge installation; railroad construction and maintenance; residential and commercial development and changes over time; installation and repair of aerial and buried utilities along the roadway; and drainage ditches. Available historic topographic maps indicate that the area has been urbanized since 1953. Because of the geology, soils, and setting, the potential for archeological deposits in the project area could exist. However, past impacts may have disturbed or destroyed any intact archeological deposits in the APE (TxDOT, 2022a). Therefore, on April 22, 2022, TxDOT concurred with findings of no effect on archeological historic properties or State Antiquities Landmarks (SALs), and no further work was recommended (**Appendix F**).

On March 8, 2019, coordination was initiated with several federally-recognized Indian tribes, including the Kickapoo Traditional Tribe of Texas, Kickapoo Tribe of Oklahoma, Kiowa Tribe, Mescalero Apache Tribe, Absentee Shawnee Tribe of Oklahoma, Alamba-Quassarte Tribal Town, Caddo Nation, Seminole Nation of Oklahoma, Tonkawa Tribe of Oklahoma, Alabama-Coushatta Tribe of Texas, Apache Tribe of Oklahoma, and Comanche Nation of Oklahoma. The review time expired on April 20, 2022, and no tribes responded to the tribal coordination request (**Appendix F**).

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

5.8.2 Historic Properties

A historic resources survey of architectural and engineering resources located along the South Zaramora Street project was conducted to identify historic-age resources in compliance with Section 106 of the NHPA. Historic-

age resources are defined as buildings, structures, objects, districts, or sites that are or will be 45 years old or older on the date the project is expected to be let for construction (i.e., were constructed in 1979 or earlier).

Determinations of Eligibility: The Historic Resources Survey Report (HRSR) for the project (TxDOT, 2022b) evaluated 96 historic-age resources and 49 non-historic-age resources on parcels with one or more historic-age resources. Historians evaluated each resource under the criteria for listing resources on the NRHP based on the quality of significance in American history, architecture, archeology, engineering, and culture present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, association, and at least one of the following criteria:

- Criterion A: Resource is associated with important events that have contributed significantly to the broad pattern of history.
- Criterion B: Resource is associated with the lives of persons significant in our past.
- Criterion C: Resource embodies the distinctive characteristics of a type, period, or method of construction; or represents the work of a master; or possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: Resource has yielded, or may be likely to yield, information important in prehistory or history.

As documented in the HRSR, TxDOT determined that the following property is eligible for the NRHP:

- K O Steel Castings, Inc. (also, Kincaid-Osborn Electric Steel Co.) (Resource 45) – This resource is an industrial complex historically associated with K O Steel Castings, Inc., which until at least the early 1970s was the city's only steel foundry. The complex includes eight historic-age resources. This property was recommended as eligible for the NRHP under Criterion A, at the local level of significance, in the area of Industry, as the first steel foundry in San Antonio, and as an industrial property associated with the manufacture of World War II equipment (TxDOT, 2022b).

TxDOT determined that the remaining surveyed properties within the project APE are not NRHP eligible due to lack of significance, historic integrity, or a combination of both.

Section 106 Determinations of Effects: CoSA and TxDOT considered the potential for direct and indirect effects on individual historic properties and historic districts. TxDOT determined the project would have no adverse effect on the following resource:

- K O Steel Casings, Inc. (Resource 45) – No ROW is proposed at this property for the project, but there is a proposed temporary construction easement of 0.003 acres. None of the contributing buildings are within the footprint of the proposed temporary construction easement. The easement may impact a chain-link fence and a non-historic-age sign (TxDOT, 2022b).

Pursuant to Stipulation IX, Appendix 6, Undertakings with the Potential to Cause Effects per 36 CFR 800.16(i) of the Section 106 Programmatic Agreement (PA) and the Memorandum of Understanding (MOU), TxDOT historians determined that there are no adverse effects to historic, non-archeological properties in the APE. The SHPO concurred with this finding on July 25, 2023 (**Appendix F**).

Under the No-Build Alternative, no effects on historic resources would occur, and no coordination with the Texas Historical Commission (THC)/SHPO would be required.

5.9 Protected Lands

5.9.1 Section 4(f)

Although the proposed project would have no adverse effect on the characteristics for which the K O Steel Casings, Inc. Complex (Resource 45) is significant, the easement constitutes a *de minimis* use of a historic site under DOT Section 4(f) regulations (23 CFR 774). The proposed project would require an approximate 0.003-acre temporary construction easement from within the proposed 4.939-acre NRHP boundary, approximately 0.061 percent of the acreage within that boundary (TxDOT, 2022b).

The THC had no comments on the *de minimis* findings under Section 4(f), as shown in **Appendix G**.

5.9.2 Section 6(f)

No Section 6(f) properties are present in the project area.

5.9.3 Chapter 26

There are no Chapter 26 properties present in the project area.

Under the No-Build Alternative, there would be no impacts to properties protected by Section 4(f), Section 6(f), or Chapter 26.

5.10 Water Resources

5.10.1 Clean Water Act Section 404

This project will not involve any regulated activity in any jurisdictional waters and therefore does not require a U.S. Army Corps of Engineers (USACE) “dredge and fill” permit under Section 404 of the Clean Water Act (CWA).

The No-Build Alternative would have no impacts on waters of the U.S., including wetlands.

5.10.2 Clean Water Act Section 401

Section 401 does not apply to this project because no permit from the USACE under Section 404 of the federal CWA is required.

Under the No-Build Alternative, no impacts to waters of the U.S. would occur and, as a result, no Section 401 water quality certification would be required.

5.10.3 Executive Order 11990 Wetlands

Executive Order (EO) 11990 Protection of Wetlands (issued in 1977) requires federal agencies to minimize the destruction or modification of wetlands. Based on field investigations, no potentially jurisdictional wetland would be impacted under the proposed project. Therefore, EO 11990 does not apply.

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

5.10.4 Rivers and Harbors Act

Section 9 of the Rivers and Harbors Act (RHA) outlines the requirements for approval to construct dams, dikes, bridges, or causeways in or over a navigable waterway, and Section 10 of this act outlines the requirements for approval to construct smaller structures in these waterways. The proposed Build Alternative would not involve a regulated activity in a navigable waterway. Therefore, the project would not require a permit, bridge lighting authorization, or exemption from the U.S. Coast Guard under Section 9 or the USACE under Section 10 of the RHA.

Under the No-Build Alternative, impacts to navigable waterways from the proposed construction activities associated with the Build Alternative would not occur, and therefore compliance with Sections 9 and 10 of the RHA and the General Bridge Act of 1946 would not be required.

5.10.5 Clean Water Act Section 303(d)

The project area is located within the Headwaters San Antonio River basin. The proposed Build Alternative is located within five linear miles of, is within the watershed of, and drains to two impaired assessment units under Section 303(d) of the federal CWA (Section 303(d) list consulted on October 22, 2022) (**Appendix E, Exhibit 3**; **Table 5-2**).

Table 5-2: Section 303(d) Listed Waters

Watershed	Segment Name	Segment Number	Assessment Unit Number(s)
Headwaters of San Antonio	Upper San Antonio River Basin	1911	1911_08
			1911_09
	San Pedro Creek	1911D	1911D_01

Source: TCEQ, 2022

To date, the Texas Commission on Environmental Quality (TCEQ) has not identified (through either a total maximum daily load [TMDL] or the review of projects under the TCEQ MOU) a need to implement control measures beyond those required by the construction general permit (CGP) on road construction projects. Therefore, compliance with the project's CGP and coordination under the TCEQ MOU for certain transportation projects collectively meets the need to address impaired waters during the environmental review process. As the CGP requires, the project and associated activities will be implemented, operated, and maintained using best management practices (BMPs) to control the discharge of pollutants from the project site.

Under the No-Build Alternative, impacts to impaired waters from the proposed construction activities associated with the Build Alternative would not occur, and therefore compliance with Section 303(d) would not be required.

5.10.6 Clean Water Act Section 402

Since the Texas Pollutant Discharge Elimination System (TPDES) CGP authorization and compliance (and the associated documentation) occur outside of the environmental clearance process, compliance is ensured by the policies and procedures governing the project's design and construction phases. TxDOT's Project Development Process Manual and the Plans, Specifications, and Estimates (PS&E) Preparation Manual require a Storm Water Pollution Prevention Plan (SW3P) to be included in the plans of all projects that disturb one or more acres. TxDOT's Construction Contract Administration Manual requires that the appropriate CGP authorization documents (notice of intent [NOI] or site notice) be completed, posted, and submitted, when required by the CGP, to the TCEQ and the Municipal Separate Storm Sewer System (MS4) operator. It also requires that projects be inspected to ensure compliance with the CGP.

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

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

5.10.7 Floodplains

This project is federally funded and therefore is subject to EO 11988, Floodplain Management, but will not involve construction in the floodplain (**Appendix E, Exhibit 4**).

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

5.10.8 Wild and Scenic Rivers

The proposed project would not involve work within the designated segment of the Rio Grande that would harm the river's free-flowing condition, water quality, or outstanding resource values. Therefore, the Wild and Scenic Rivers Act does not apply.

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

5.10.11 Edwards Aquifer

The proposed project is not located within the recharge, contributing, or transition zones of the Edwards Aquifer (**Appendix E, Exhibit 5**)**.** Therefore, the TCEQ Edwards Aquifer rules do not apply. Further, the U.S. Environmental Protection Agency's (EPA) Edwards Aquifer MOU does not apply.

5.10.12 International Boundary and Water Commission

This project does not cross or encroach upon the floodway of the International Boundary Water Commission (IBWC) ROW or an IBWC flood control project.

5.10.13 Drinking Water Systems

Per TxDOT's Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (Item 103, Disposal of Wells), drinking water wells must be properly removed and disposed of during the project's construction.

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

5.11 Biological Resources

5.11.1 Impacts to Vegetation

The project area is limited to urban, maintained vegetation only. Impacts on vegetation would be restricted to urban vegetation and would be restricted to the existing and proposed ROW. The removal of native vegetation or woody vegetation would not occur.

If the No-Build Alternative were implemented, the proposed project would not be constructed. No effects to vegetation related to the construction of the proposed project would occur. Existing land use and activities, including routine mowing, would continue.

5.11.2 Executive Order 13112 on Invasive Species

This project is subject to and will comply with federal EO 13112 on Invasive Species. The No-Build Alternative would not be subject to EO 13112 on Invasive Species.

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

5.11.4 Impacts to Wildlife

The urban vegetation of the project area provides habitat for a wide range of reptilian, avian, and mammalian species that are common in this environment. It is anticipated that some wildlife species could occur in the project area and adjacent land. Required construction-related activities may directly or indirectly affect animals that reside on or adjacent to the project area ROW. Heavy machinery could kill small, low-mobility animals or

cause soil compaction, impacting underground animals. Larger, more mobile species typically avoid construction activities and move into adjacent areas.

Regarding encroachment-alteration effects under the Build Alternative, removing urban habitat areas would not extend beyond the maintained vegetation within the project area. Accordingly, impacts to habitat would be limited to the area of direct impacts, and no encroachment impacts are expected.

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

5.11.5 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. CoSA will avoid removing and destroying active bird nests except through federal or state-approved options. In addition, where appropriate and practicable, CoSA will:

- Use measures to prevent or discourage birds from building nests on man-made structures within portions of the project area planned for construction.
- Schedule vegetation-clearing activities outside the typical nesting season.

Additional preemptive and preventative measures that may be applied, where appropriate and practicable, are described in TxDOT's Guidance – Avoiding Migratory Birds and Handling Potential Violations.

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 on migratory birds.

5.11.6 Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (FWCA) does not apply to this project.

5.11.7 Bald and Golden Eagle Protection Act of 2007

This project is not within 660 feet of an active or inactive Bald or Golden Eagle nest. Therefore, no coordination with the U.S. Fish and Wildlife Service (USFWS) is required.

5.11.8 Magnuson-Stevens Fishery Conservation Management Act

The Essential Fish Habitat (EFH)/Magnuson-Stevens Fishery Conservation and Management Act (MSA) does not apply.

5.11.9 Marine Mammal Protection Act

The project area does not contain suitable habitat for marine mammals.

5.11.10 Threatened, Endangered, and Candidate Species

The USFWS Officials Species List and the Texas Parks and Wildlife Department's (TPWD) list of endangered and threatened species were used for this analysis (USFWS, 2023; TPWD, 2023). A Species Analysis

Spreadsheet and Species Analysis Form were completed to document potential impacts to threatened and endangered species within the project area (TxDOT, 2023f; TxDOT, 2023g).

No habitat was identified in the project area for any federally-listed or candidate species or state-listed species. For additional information, refer to the Species Analysis Spreadsheet (TxDOT, 2023g).

The proposed project is located within the range of and contains suitable habitat for one species of greatest conservation need (SGCN), the cave myotis bat (*Myotis velifer*). Therefore, the project could potentially impact this species. No habitat was identified in the project area for any other SGCNs.

Although the proposed project may result in the removal of potentially suitable habitat or the temporary disturbance of individuals of the cave myotis bat, the project is not anticipated to cause a substantial impact to this species. Any impacts to individuals would be incidental. BMPs would be in place to avoid or minimize harm to this species (**Appendix F**).

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

5.12 Air Quality

5.12.1 Transportation Conformity

This project is located within an area designated by the EPA as a moderate nonattainment area for the 2015 8-hour ozone National Ambient Air Quality Standards (NAAQS); therefore, transportation conformity rules apply. However, in accordance with federal guidelines in Section 93.126 and 93.128, of Title 40 CFR, the proposed project, a safety project, is exempt from a conformity determination.

5.12.2 Carbon Monoxide Traffic Air Quality Analysis

Generally, projects such as the proposed action are considered exempt from a transportation air quality analysis (TAQA) because they are intended to enhance traffic safety and improve traffic flow. The proposed action would not add capacity to an existing facility. Current and future emissions should continue to follow existing trends not being affected by this project. Due to the nature of this project, further carbon monoxide analysis was not required.

5.12.3 Mobile Source Air Toxics

The purpose of this project is to improve mobility and safety on South Zarzamora Street by constructing two overpasses over the existing South Zarzamora Street/Frio City Road/Kirk Place and UPRR intersections. The project has been determined to generate minimal air quality impacts for Clean Air Act (CAA) criteria pollutants. It has not been linked with any special mobile source air toxics (MSAT) concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the No-Build Alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES3 model forecasts a combined reduction of over 76 percent in the total annual emissions rate for the priority MSAT from 2020 to 2060 while vehicle-miles of travel (VMT) are projected to increase by over 31 percent (FHWA, 2023). This will reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

5.12.4 Construction Emissions

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. CoSA 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 the TCEQ's TERP website (TCEQ 2023).

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 the construction of this project would have any significant impact on air quality in the area.

The No-Build Alternative would result in gradually increasing VMT as traffic volumes increase and traffic congestion worsens within the existing roadway system over time. Actual and predicted trends in both criteria pollutants and MSAT emissions would be expected to continue in the future, regardless of the alternative chosen.

5.13 Hazardous Materials

In February 2023, a Hazardous Materials ISA was completed for the Build Alternative to identify sites or facilities that might pose a potential for hazardous materials impacts to the proposed project (TxDOT, 2023d). The evaluation reached conclusions regarding multiple unresolved hazardous materials concerns, as shown in **Appendix E, Exhibit 6,** and summarized in **Table 5-3** below.

Table 5-3: Summary of Unresolved Hazardous Materials Sites

Findings ID #*	Name	Address	Issue Type	Potential Project Impacts	Proposed Next Step
30	historical service station	Southeast of Zarzamora/Barrett intersection	PST site	Acquisition of ROW from the facility.	Once right of entry is received, a supplemental Phase II ESA investigation will be conducted on these parcels.
33	historical auto facility	Southeast of Zarzamora/ Thompson Place intersection	Automotive repair		
34	New Frontier Motors	2919 S. Zarzamora St.			
35	historical auto facility	Northeast of Zarzamora/Walton intersection			

Source: TxDOT, 2023d

*Finding ID #s correspond to the Finding ID #s described in the ISA.

The proposed project would also include the demolition of buildings. Asbestos-containing materials (ACM) and lead-containing paint (LCP) may be present in these structures. Asbestos and LCP inspections, notification, and removal, as applicable, would be addressed before demolition per regulatory requirements.

Detailed information about the hazardous materials evaluation conducted for the project can be found in the Hazardous Materials ISA (TxDOT, 2023d).

Under the No-Build Alternative, the proposed project would not be constructed, and project-related hazardous materials impacts would not occur.

5.14 Traffic Noise

A traffic noise analysis was prepared per TxDOT's (FHWA-approved) Traffic Noise Policy (2019). The Traffic Noise Analysis Report (TxDOT, 2022f), which includes details about the analysis, is available for public review at the TxDOT San Antonio District Office.

Existing and predicted traffic noise levels were modeled at representative land use activity areas (i.e., receptors) (**Table 5-4**; **Appendix E, Exhibit 7**) adjacent to the project that might be impacted by traffic noise and would potentially benefit from feasible and reasonable noise abatement.

Table 5-4: Traffic Noise Levels dB(A) Leq

Representative Receiver	NAC Category	NAC Level	Existing	Predicted 2046	Change (+/-)	Noise Impacts (Yes or No)
R1 Single Family Residence	B	67	60	62	+2	No
R2 Single Family Residence	B	67	64	65	+1	No
R3 Single Family Residence	B	67	62	63	+1	No
R4 Single Family Residence	B	67	59	64	+5	No
R5 Single Family Residence	B	67	60	61	+1	No
R6 Single Family Residence	B	67	58	64	+6	No
R7 Single Family Residence	B	67	58	64	+6	No
R8 Single Family Residence	B	67	59	64	+5	No
R9 Single Family Residence	B	67	58	60	+2	No
R10 Single Family Residence	B	67	58	60	+2	No
R11 Single Family Residence	B	67	50	53	+3	No
R12 Single Family Residence	B	67	52	56	+4	No
R13 Single Family Residence	B	67	54	57	+3	No
R14 Single Family Residence	B	67	54	57	+3	No
R15 Single Family Residence	B	67	57	59	+2	No
R16 Single Family Residence	B	67	62	64	+2	No

Source: TxDOT 2022f

Modeled noise-sensitive locations were entirely residential. The traffic noise analysis determined that out of 16 representative receivers, 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.

To avoid noise impacts that may result from the 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 (2046) noise impact contours.

Table 5-5: Predicted Noise Impact Contours

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

Source: TxDOT, 2022f

A copy of the noise analysis will be available to local officials to assist in future land use planning. On the date of the environmental decision for this project (Date of Public Knowledge), FHWA and TxDOT (including the local project sponsor) are no longer responsible for providing noise abatement for new development adjacent to the proposed 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 Indirect Impacts Technical Report (TxDOT, 2023e) was prepared for the proposed project per TxDOT's Indirect Impacts Analysis Guidance (TxDOT, 2019b). The area studied for indirect effects is referred to as the "Area of Influence" (AOI), shown in **Appendix E, Exhibit 8**. The temporal boundary for the induced growth analysis begins in 2020, which was when this project was re-initiated by the City, and ends in 2045, the planning horizon for the Mobility 2045: Metropolitan Transportation Plan (MTP), which was the long-range transportation plan for the region at the time of the analysis. Within the approximately 1,277.5-acre AOI, there are approximately 25.1 acres (2 percent) of developable land (TxDOT, 2023e). To consider past trends, data was analyzed dating to 2000, a decade that saw increased land development in the AOI.

The AOI experienced a marked increase in land development from 2000 to the present. Home construction during this period accounts for approximately 69 percent of the total housing stock within the AOI. Home construction grew slowly from 1939 to 1999, with approximately 30 percent of homes within the AOI constructed during this period. From 2000 to 2013, the number of homes grew substantially, with over half the homes in the AOI added during these 13 years. Since 2014, homes have continued to be constructed within the AOI, with approximately 18 percent added after 2014. The population in the AOI grew by nearly 57 percent from 2000 to 2021, and populations are expected to continue to grow into 2045. Planned developments in the AOI include several residential and commercial developments (TxDOT, 2023e).

Construction of the proposed project would improve mobility and safety on South Zarzamora Street. However, parcels adjacent to the proposed project are almost entirely developed or have planned development, except for three parcels. Based on this, it is not anticipated that the proposed project would induce development; however, it is possible that the improvements could accelerate already planned developments (TxDOT, 2023e).

Based on an analysis of land use types in the AOI, approximately 1.5 percent of the land within the AOI has a moderate likelihood of induced growth development, and 0.5 percent has a high likelihood. Even though these lands have the potential for induced growth development, the exact type, location, timing, and density of future developments within the AOI are unknown at the time of this report. It should be noted that all future development would comply with local municipal regulations and ordinances (TxDOT, 2023e).

It is possible that the proposed project could influence future land use and development within the AOI by accelerating the development rate due to improved mobility and decreased travel times in the project area. However, local municipality regulations would regulate future land development that addresses environmental and social impacts by requiring mitigation measures to be part of the site design and the construction process. Additionally, agencies and programs that guide the development of a potential project would be similar to the mitigation and permitting measures required by CoSA and TxDOT. For example, all development must comply with the ESA, the CWA, and other regulations requiring mitigation if there are effects on species' habitat or waters of the U.S. (TxDOT, 2023e).

Finally, the proposed project is not anticipated to conflict with the AAMPO's or CoSA's development goals or cause substantial negative indirect, induced growth impacts. Therefore, the requirement for mitigating environmental impacts would be limited to mitigating only the direct impacts associated with the proposed project.

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

5.16 Cumulative Impacts

Cumulative effects are defined as effects "on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR § 1508.7).

The approach for conducting cumulative impacts analysis is ultimately guided by the following TxDOT publications, which are available online in the TxDOT Indirect and Cumulative Impacts Toolkit: Risk Assessment for Cumulative Impacts (TxDOT, 2014) and Cumulative Impacts Analysis Guidance (TxDOT, 2019a).

Cumulative impacts can result from "individually minor but collectively significant actions taking place over a period of time" (40 CFR § 1508.7). As this regulation suggests, the purpose of a cumulative impacts analysis is to view the direct and indirect impacts of the proposed project within the larger context of past, present, and future activities that are independent of the proposed project but which are likely to affect the same resources in the future. Environmental and social resources are evaluated from relative abundance among similar resources within a larger geographic area. Broadening the view of resource impacts in this way provides the decision maker an insight into the magnitude of project-related impacts in light of the overall health and abundance of selected resources.

In essence, a cumulative impacts evaluation first paints a conceptual picture of each resource's existing or "baseline" condition based on historical information and an assessment of current conditions. Second, the analysis then inventories future projects in the vicinity that are planned and financed but unrelated to the proposed project and assesses the likely collective impacts of those projects for each resource. Third, the

analysis then describes the expected future status of the resource (i.e., in terms of quantity and condition) after the combined (i.e., cumulative) effects of the proposed project and other foreseeable projects are fully realized. Finally, the cumulative impacts analysis assesses the level of concern that should be associated with the expected cumulative impacts on a resource based on the scarcity or current condition. All relevant, reasonable mitigation measures must be identified, even if they are outside the jurisdiction of CoSA or TxDOT. Mitigation measures identified to address the proposed project's direct and indirect effects can also minimize, rectify, or compensate for negative cumulative effects. These measures are typically considered and disclosed in other technical reports or the EA.

According to TxDOT's Cumulative Impacts Analysis Guidance (TxDOT, 2019a), if a project does not cause direct or indirect impacts on a resource, it would not contribute to a cumulative impact on that resource. **Table 5-6** describes direct and indirect impacts for each resource category subject to NEPA investigation for the proposed project and whether the resource is in poor or declining health or at risk.

Table 5-6: Risk Assessment for Cumulative Impacts

Resource	Project Impacts (Direct and Indirect)	In Poor or Declining Health?	Cumulative Impacts Analysis Necessary?
Community Resources	See **Section 5.6**.	No. Minority and LEP populations in the study area are stable or consistent with the region. Based on Census data, from 2017 to 2021, the percentage of Hispanics or Latinos (96%) versus Not Hispanics or Latinos (4%) remained the same in the project area (ACS, 2021a). During this period for households reporting LEP, a 12% increase in population yielded only a 3% increase in LEP households (ACS, 2021c). Low-income populations also showed to be stable or improving. From 2017 to 2021, the median household income within the project area increased by an average of 5.1%, with an increase in monthly household costs only	No. Substantial project impacts are not anticipated to community resources, including EJ and LEP populations (TxDOT, 2023a). Safety and mobility improvements would achieve an equitable distribution of benefits and burdens. The burdens borne are minor and uncontroversial to the community (five commercial and two residential displacements), whereas the benefits of the proposed project are consistent with those for other safety and mobility projects in the city.

Resource	Project Impacts (Direct and Indirect)	In Poor or Declining Health?	Cumulative Impacts Analysis Necessary?
		increasing by 0.5% to 4.2% (ACS, 2021b).	
Surface Water Quality	See **Section 5.10.5**.	Yes. According to the TCEQ 2020 Water Quality Index list, two impaired streams are in the project area.	No. With various levels of regulatory protections in place and measures to be undertaken to substantially reduce potential adverse impacts to surface waters through BMPs and design elements before, during, and after construction, no direct or indirect impacts to this resource are anticipated.
Groundwater Quality	See **Section 5.10.11**.	No	No. TxDOT's construction operations are regulated by the CGP TXR150000, which applies to stormwater discharges from construction projects like the proposed project. The CGP requires that CoSA implement a SWP3 that describes BMPs designed to decrease erosion from and sediment generated by construction projects. Thus, no direct or indirect impacts to this resource are anticipated.
Floodplains	See **Section 5.10.7**.	N/A – no floodplains in the project area.	No. There would be no direct or indirect impacts to this resource due to the project.
Waters of the U.S., including Wetlands	See **Section 5.10.1**.	N/A – no waters of the U.S. in the project area.	No. There would be no direct or indirect impacts to this resource due to the project.
Threatened and Endangered Species	See **Section 5.11.10**.	Yes	No. The proposed project is not expected to have direct or indirect impacts on protected species. Due to the developed urban character of the proposed project area, suitable habitat to support listed species is generally absent.
Prime and Unique Farmland	See **Section 5.3**.	N/A – the FPPA does not apply to the proposed project.	No. The FPPA does not apply to the proposed project.
Archeological Resources	See **Section 5.8.1**.	No	No. The proposed project is not expected to directly or indirectly impact archeological resources.
Historic Resources	See **Section 5.8.2**.	No	No. Cumulative impacts to historic resources were addressed under Section 106 in the Historic Resources Survey Report (TxDOT, 2022b). The approach was guided by the regulations for Section 106 of the NHPA provided by the ACHP (36 CFR 800).
Hazardous Materials	See **Section 5.13**.	No	No. The Hazmat ISA (TxDOT, 2023d) concluded that four issues remain unresolved. As these properties are proposed for acquisition (in part or whole), once right-of-entry is received, a supplemental Phase II Environmental Site Assessment will be conducted on these

Resource	Project Impacts (Direct and Indirect)	In Poor or Declining Health?	Cumulative Impacts Analysis Necessary?
			parcels, and any necessary mitigation will be implemented. Therefore, no direct or indirect effects to hazardous materials are anticipated.
Air Quality	See **Section 5.12**.	No	No. The project is not expected to have direct or indirect impacts on air quality.
Traffic Noise	See **Section 5.14**.	No	No. The project is not expected to directly or indirectly impact traffic noise.

Based on this analysis, no analyzed resource meets the above criteria for a cumulative impact analysis.

Under the No-Build Alternative, existing resources would only be impacted by reasonably foreseeable projects, which account for most cumulative impacts on all resources examined.

5.17 Construction Phase Impacts

Although temporary congestion may occur due to project construction, access to parcels in the project vicinity would be maintained during all construction phases. All necessary steps would be taken to minimize the inconvenience to drivers using intersecting roadways during construction. People living and working in the immediate area of the proposed project may experience an increase in noise and dust due to the construction activities.

Noise associated with the construction of the project is difficult to predict. Heavy machinery, the major source of noise in construction, is constantly moving in unpredictable patterns. However, construction normally occurs during daylight hours when occasional loud noises are more tolerable. None of the receptors are 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.

Temporary detours might also be required in the project area to assist with diverting traffic through surrounding areas while certain areas are under construction. During the construction phase of this project, temporary increases in PM and MSAT emissions may occur from construction activities. Refer to **Section 5.12** for the discussion of construction-related air emissions.

Contractors would be required to follow TxDOT standard specifications and applicable federal, state, and local regulations and ordinances that may minimize construction-phase impacts.

Under the No-Build Alternative, construction activities would not occur, and temporary increases in traffic congestion, air pollution, and MSAT emissions would not occur.

5.18 Greenhouse Gas and Climate Change

TxDOT has prepared a Statewide On-Road Greenhouse Gas Analysis and Climate Change Assessment technical report (TxDOT, 2018). The report discloses:

- An analysis of available data regarding statewide greenhouse gas (GHG) emissions for on-road GHG emissions[2].
- TxDOT actions and funding that support reducing GHG emissions.
- Projected climate change effects for the state of Texas.
- TxDOT's current strategies and plans for addressing the changing climate.

A summary of key issues in this technical report is provided below. Please refer to the technical report for more details.

The Earth has gone through many natural changes in climate over time. However, since the industrial revolution began in the 1700s, atmospheric concentrations of GHG emissions have continued to climb, primarily due to humans burning fossil fuels (e.g., coal, natural gas, gasoline, oil, or diesel) to generate electricity, heat and cool buildings, and power industrial processes, vehicles, and equipment. According to the Intergovernmental Panel on Climate Change (IPCC), this increase in GHG emissions is projected to contribute to future changes in climate (Solomon 2007, Stocker 2013).

5.18.1 Statewide On-Road GHG

TxDOT prepared a GHG analysis for the statewide on-road transportation system and associated emissions generated by motor vehicle fuel processing called "fuel-cycle emissions." EPA's Motor Vehicle Emissions Simulator (MOVES2014 version) emissions model was used to estimate emissions. Texas on-road and fuel cycle GHG emissions are estimated to be 186 million metric tons (MMT) in 2050 and reach a minimum in 2032 at 161 MMT. Future on-road GHG emissions may be affected by changes that may alter where people live and work and how they use the transportation system, including but not limited to:

- The results of federal policy, including tailpipe and fuel controls.
- Market forces and economics.
- Individual choice decisions.
- Acts of nature (e.g., pandemic) or societal changes.

[2] GHG emissions consist of on-road tailpipe emissions and upstream fuel cycle emissions. Upstream fuel cycle emissions are the emissions generated by extracting, shipping, refining, and delivering fuels.

- Other technological advancements.

Such changes cannot be accurately predicted due to the inherent uncertainty in future projections related to demographics, social change, technology, and the inability to accurately forecast where people work and live (TRB, 2007).

5.18.2 Mitigation Measures

Strategies that reduce on-road GHG emissions fall under four major categories:

- Federal engine and fuel controls under the CAA implemented jointly by the EPA and DOT, which includes Corporate Average Fuel Economy (CAFÉ) standards.
- "Cash for clunker" programs, which remove older, higher-emitting vehicles from roads.
- Traffic system management (TSM), which improves the operational characteristics of the transportation network (e.g., traffic light timing, pre-staged wrecker service to clear accidents faster, or traveler information systems).
- Travel demand management (TDM), which provides reductions in VMT (e.g., transit, rideshare, and bicycle and pedestrian facilities) and requires personal choice decisions.

TxDOT has implemented programmatic strategies that reduce GHG emissions, including:

- Travel demand management projects and funding to reduce VMT, such as bicycle and pedestrian facilities.
- TSM projects and funding to improve the operation of the transportation system.
- Participation in the national alternative fuels corridor program.
- Clean construction activities.
- Clean fleet activities.
- Congestion Mitigation and Air Quality (CMAQ) funding.
- Transit funding.
- Two statewide campaigns to reduce tailpipe emissions.

5.18.3 TxDOT and a Changing Climate

TxDOT has strategies that address a changing climate per TxDOT and FHWA design, asset management, maintenance, emergency response, and operational policies and guidance. The flexibility and elasticity in TxDOT transportation planning, design, emergency response, maintenance, asset management, and operation and maintenance of the transportation system are intended to consider any number of changing scenarios over time. Additional detail is in the statewide technical report.

6.0 Agency Coordination

TxDOT initiated project-specific consultation under Section 106 of the NHPA with federally recognized tribes on March 8, 2019. As of April 20, 2022, the tribal response period elapsed, and no tribes objected or otherwise responded to the tribal coordination request.

Pursuant to Stipulation IX "Undertakings with Potential to Cause Effects per 36 CFR 800.16(i)" of the Section 106 PA and the MOU, TxDOT initiated consultation with the SHPO. On July 25, 2023, the SHPO concurred that the project would have "no adverse effects" on historical resources and provided no comments on the determination of *de minimis* impact under Section 4(f) regulations.

The proposed project may impact one SGCN, the cave myotis bat (*Myotis velifer*). Per the MOU between the TxDOT and TPWD, TPWD has provided a set of recommended BMPs in a document titled "Beneficial Management Practices –Avoiding, Minimizing, and Mitigating Impacts of Transportation Projects on State Natural Resources," which is available on TxDOT's Natural Resources Toolkit at https://www.txdot.gov/insidetxdot/division/environmental/compliance-toolkits/natural-resources.html. The MOU provides that application of specific BMPs to individual projects will be determined by TxDOT at its discretion. The TPWD-recommended BMPs that will be applied to this project are indicated in the Documentation of Texas Parks and Wildlife Department Best Management Practices Form prepared for the project, which is included in **Appendix F**. Since there are no anticipated effects to any federally listed species, coordination with the USFWS was not required.

7.0 Public Involvement

CoSA and TxDOT engaged with the public and local stakeholders during the planning stage of the proposed project. To date, CoSA has conducted multiple affected property owner meetings and has held one public meeting.

7.1 Affected Property Owner Meetings

From January 2022 to November 2023, 14 meetings with affected property owners were held to inform property owners how the proposed project would potentially impact their property. This process allowed property owners to voice their feedback regarding the proposed project and understand the ROW process.

7.2 Virtual Public Meeting with In-Person Open House

On July 7, 2022, a Virtual Public Meeting with an In-Person Open House was held in English and Spanish. The virtual public meeting was available at 5 p.m. at www.southzarzamora.com (English) and www.southzarzamora-spanish.com (Spanish) until July 22, 2022. The in-person open house was held at Nuestra Senora de Guadalupe, located at 4654 El Paso St., San Antonio, Texas 78207, from 5 p.m. to 7 p.m.

The meeting allowed the public and stakeholders to review the proposed improvements and project exhibits and ask questions regarding the proposed improvements, alternatives considered, and the project timeline. A total of 73 individuals (49 in-person and 24 virtual attendees), excluding staff, attended the meeting. The Virtual Public Meeting with In-Person Open House was advertised using the following methods:

- English notice published in the San Antonio Express News on June 22, 2022.
- Spanish notice published in the Conexion newspaper on June 22, 2022.
- Bilingual notices were mailed to 3,603 property owners/stakeholders on June 22, 2022.
- Elected officials letters were mailed to 12 elected officials on June 22, 2022.
- Notices were published on TxDOT and CoSA's websites on June 22, 2022.

A total of 25 comments were received during the public comment period. Comments were primarily centered on the following topics:

- General support for the project due to existing traffic congestion and safety issues.
- General support for the No-Build Alternative.
- Questions regarding environmental analysis and timing.
- Requests for different alternatives, including an underpass and a second, elevated railroad.
- Opposition to time, location, and format of in-person public meeting and information presented.
- Drainage concerns.
- Questions regarding the location and impacts of the proposed cul-de-sac on Darby Boulevard.
- Requests for additional stop signs within the project limits.
- Questions regarding future public involvement opportunities.
- Concerns that the project would create additional traffic and be hard to navigate.
- Concerns regarding impacts to adjacent businesses and properties.
- Requests for 3D visualizations of the project.
- Concerns regarding the potential increase in the homeless population in the area.
- Requests for xeriscaping to be included in the project.

A public meeting summary report was prepared, which included a comment and response matrix (TxDOT, 2023b), which may be inspected and copied upon request at the TxDOT San Antonio District Office located at 4615 Northwest Loop 410, San Antonio, Texas 78229.

7.3 Opportunity for Public Hearing

If the TxDOT Environmental Affairs Division approves the draft EA for circulation, the TxDOT San Antonio District will advertise an opportunity for a public hearing per applicable regulations. The notice would inform the public that a hearing may be held for the project if ten or more individuals request a hearing, or if any agency with jurisdiction submits a request supported with reasons why a hearing would be helpful. If less than 10 requests for a public hearing, and no request by an agency with jursidction supported with reasons why a hearing will be helpful, are received by the deadline, a certification will be prepared to that effect. If 10 or more requests are received, or a request from an agency with jurisdiction supported with reasons why a hearing will be helpful is received, TxDOT may hold a public hearing if the requests are not retracted. **Appendix H** will contain the comment and response matrix from the Notice of Availability of Draft EA/Opportunity for Public Hearing, when available.

7.4 Additional Public Involvement

In addition to the public involvement efforts conducted in adherence to NEPA and TxDOT guidelines, the City has also held several public engagement activities throughout the project development process, including:

- 2011 – Nogalitos/South Zarzamora Community Plan identified need for alternate route
- Jan. 28, 2015 – Conceptual Design Public Meeting
- 2016 – 2017 – Bond community involvement
- May 6, 2017 – 2017-2022 Bond Program approved by voters
- May 25, 2017 – Open House
- Oct. 19, 2017 – Stakeholder Meeting
- Nov. 30, 2017 – Public Meeting
- Dec. 2017 – UPRR and Citizen Coalition
- Feb. 27, 2018 – Public Meeting
- Oct. 28, 2021 – Public Update Video
- Aug. 21 – Sept. 29, 2023 – South Zarzamora Overpass Aesthetic Package Survey

The most recent of these public engagement opportunities was an Aesthetic Package Survey, which was available from Aug. 21, 2023 to Sept.29, 2023. In response to feedback received as part of the Virtual Public Meeting with In-Person Open House, the City conducted this survey to present the public with a rendering of the proposed project and to seek input on two different aesthetic package options for the overpasses. The survey was available in both English and Spanish and could be taken either online at www.saspeakup.com/OverpassSurvey or in-person at the Collins Garden Library (200 N. Park Blvd., San Antonio, Texas 78204). A total of 205 surveys were completed, and approximately 62 percent of respondents expressed a preference for Aesthetic Option B over Aesthetic Option A.

8.0 Post-Environmental Clearance Activities and Design/Construction Commitments

8.1 Post-Environmental Clearance Activities

- Perform supplemental Phase II Environmental Site Assessment for the unresolved hazardous materials concerns once right-of-entry has been secured.

8.2 Design/Construction Commitments

- Comply with TPDES, including preparation of a:
  - CGP
  - SW3P
  - Site Notice
  - NOI
- As indicated above in **Section 6.0**, the TPWD-recommended BMPs that will be applied to this project are indicated in the Documentation of Texas Parks and Wildlife Department Best Management Practices Form prepared for the project, which is included in **Appendix F**.
- Avoid and minimize disturbance of vegetation and soils. In accordance with EO 13112 on Invasive Species, the Executive Memorandum on Beneficial Landscaping, and the 1999 FHWA guidance on invasive species, all revegetation would, to the extent practicable, use only native species. Furthermore, BMPs would be used to control and prevent the spread of invasive species.
- Comply with the MBTA, including taking all appropriate actions to prevent the take of migratory birds, their active nests, eggs, or young by the use of proper phasing of the project or other appropriate actions.
- Make the traffic noise analysis available to local officials before construction.
- If unanticipated archeological deposits are encountered during construction, work in the immediate area will cease and CoSA and TxDOT archeological staff will be contacted to initiate post-review discovery procedures.
- Implement dust control measures.
- Any unanticipated hazardous materials and/or petroleum contamination encountered during construction would be handled according to applicable federal and state regulations per TxDOT Standard Specifications.

9.0 Conclusion

Implementation of the proposed project would not result in a significant impact on the human or natural environment. Therefore, a FONSI is recommended.

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11.0 Names and Qualifications of Persons Preparing the EA or Conducting an Independent Evaluation of the EA

City of San Antonio

- Theresa Larson, Environmental Services Coordinator

TxDOT San Antonio District

- Ricardo Flores, Environmental Coordinator

Poznecki-Camarillo, LLC

- Jackie Lopez, Vice President of Environmental – 16 years
- Colin McGahey, Sr. Environmental Planner – 21 years
- Kailey Butler, Environmental Specialist II – 5 years

Appendix A
Project Location Map

Exhibit 1
Project Location Map

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

N

0 215 430 860 1,290 Feet

Appendix B
Project Photos

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 1 **Date:** 2/1/2021 **Direction:** southeast **Description:** Adjacent commercial structure located on the east side of S. Zarzamora Street at 3402 S. Zarzamora St. Note: this facility is currently vacant and was a former petroleum storage tank (PST) and leaking petroleum storage tank (LPST) site.	

Photo Number: 2 **Date:** 2/1/2021 **Direction:** southeast **Description:** Adjacent gas station, Circle K, located on the east side of S. Zarzamora Street at 3210 S. Zarzamora St. Note: this facility is a PST site.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 3

Date: *This image was captured via Google Earth*

Direction: north

Description:
Existing non-signalized S. Zarzamora Street/Jennings Avenue intersection. Note, a traffic signal would be installed at this intersection under the proposed project.

Photo Number: 4

Date: 2/1/2021

Direction: north

Description:
Adjacent single-family residence located on the north side of Jennings Avenue at 703 Jennings Ave. Note: this residence is currently vacant. A small corner clip of ROW acquisition is proposed from this property.

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 5

Date: 1/26/2021

Direction: south

Description:
Existing VIA bus stop located at the southeast corner of S. Zarzamora Street and Carroll Street. Note: this bus stop would be relocated slightly to the south of its existing location.

Photo Number: 6

Date: 2/1/2021

Direction: west

Description:
Adjacent Mexican restaurant, Café San Luis, located on the west side of S. Zarzamora Street at 3103 S. Zarzamora St. Note: a small corner clip of ROW acquisition is proposed from this property.

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 7

Date: *This image was captured via Google Earth*

Direction: northwest

Description:
Adjacent parking lot and equipment storage lot located on the west side of S. Zarzamora Street. Note: ROW acquisition is proposed from this property. In addition, a new VIA bus stop is proposed in front of this property.

Photo Number: 8

Date: 2/1/2021

Direction: south

Description:
Adjacent commercial strip center located on the east side of S. Zarzamora Street at 3002 S. Zarzamora St. Tenants at this property include Haifa Market, Jackson Hewitt, Ana Sol Hair Salon, and Metro by T-Mobile. Note: ROW acquisition and a temporary construction easement are proposed from this property. The structure is of historic-age and is a PST site.

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 9 **Date:** 1/26/2021 **Direction:** north **Description:** Artistic mural on the south façade of the commercial strip center structure (pictured above) located at 3002 S. Zarzamora St.	

Photo Number: 10 **Date:** 2/1/2021 **Direction:** northwest **Description:** Adjacent industrial property, Zarzamora Industrial Park, located on the west side of S. Zarzamora Street at 2915 S. Zarzamora St. There are multiple tenants at this property. Note: a temporary construction easement is proposed at this property. One or more structures at this property are of historic-age.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 11 **Date:** 2/1/2021 **Direction:** west **Description:** Art piece located in front of the Zarzamora Industrial Park property (pictured above) on the west side of S. Zarzamora Street.	

Photo Number: 12 **Date:** *This image was captured via Google Earth* **Direction:** west **Description:** View of Walton Road from Phyllis Street to S. Zarzamora Street. Note: under the proposed project, this section of Walton Road would be permanently closed in order to realign S. Zarzamora Street.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 13

Date: *This image was captured via Google Earth*

Direction: north

Description:
View of Phyllis Street, looking north of Walton Avenue. Note: a sidewalk would be constructed on the west side of Phyllis Street under the proposed project.

Photo Number: 14

Date: 1/26/2021

Direction: northwest

Description:
View of Walton Road from Phyllis Street to S. Zarzamora Street. Note: under the proposed project, this section of Walton Road would be permanently closed in order to realign S. Zarzamora Street.

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 15

Date: 1/26/2021

Direction: southwest

Description:
Adjacent transmission shop, Nogalitos Gear Transmission Service Co., located on the east side of S. Zarzamora Street at 2910 S. Zarzamora St. Note: this business is proposed to be displaced under the proposed project. A U.S. Geological Service (USGS)-mapped water well is located on this property.

Photo Number: 16

Date: *This image was captured via Google Earth*

Direction: west

Description:
View of Thompson Place from Phyllis Street to S. Zarzamora Street. Note: under the proposed project, this section of Thompson Place would be permanently closed in order to realign S. Zarzamora Street.

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 17

Date: 1/26/2021

Direction: east

Description:
Adjacent auto glass shop, San Antonio Auto Glass, located on the east side of S. Zarzamora Street at 2818 S. Zarzamora St. Note: this business is proposed to be displaced under the proposed project. The structure is of historic-age.

Photo Number: 18

Date: 1/26/2021

Direction: southeast

Description:
View of Thompson Place from Phyllis Street to S. Zarzamora Street. Note: under the proposed project, this section of Thompson Place would be permanently closed in order to realign S. Zarzamora Street.

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 19 **Date:** 1/26/2021 **Direction:** south **Description:** Existing VIA bus stop located in front of Ozuna's Automotive (pictured above) on the east side of S. Zarzamora Street. Note: this bus stop would be removed under the proposed project.	

Photo Number: 20 **Date:** 2/1/2021 **Direction:** north **Description:** Existing VIA bus stop located on the west side of S. Zarzamora Street, across from Barrett Place. Note: this bus stop would be relocated to the northwest corner of S. Zarzamora Street and Carroll Street under the proposed project.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 21 **Date:** *This image was captured via Google Earth* **Direction:** west **Description:** View of Barrett Place from Phyllis Street to S. Zarzamora Street. Note: under the proposed project, this section of Barrett Place would be permanently closed in order to realign S. Zarzamora Street.	

Photo Number: 22 **Date:** 1/26/2021 **Direction:** southeast **Description:** Adjacent Mexican restaurant, Oscar's Taco House, located on the north side of Barrett Place at 705 Barrett Pl. Note: this business is proposed to be displaced under the proposed project. The structure is of historic-age.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 23 **Date:** 1/26/2021 **Direction:** west **Description:** Back view of Oscar's Taco House (pictured above), located at 705 Barrett Pl.	

Photo Number: 24 **Date:** 1/26/2021 **Direction:** northeast **Description:** Adjacent single-family residence located on the north side of Barrett Place at 663 Barrett Pl. Note: this residence is proposed to be displaced under the proposed project. The structure is of historic-age.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 25 **Date:** 1/26/2021 **Direction:** south **Description:** Adjacent Mexican restaurant, El Comalito, located on the east side of S. Zarzamora Street at 2702 S. Zarzamora St. Note: this business is proposed to be displaced under the proposed project. The structure is of historic-age.	

Photo Number: 26 **Date:** *This image was captured via Google Earth* **Direction:** southeast **Description:** Adjacent undeveloped lot located at the southwest corner of Phyllis Street and Taft Boulevard. Note: this property is proposed to be acquired in whole.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 27

Date: 1/26/2021

Direction: east

Description:
Adjacent single-family residence located on the north side of Taft Boulevard at 659 Taft Blvd. Note: this residence is proposed to be displaced under the proposed project. The structure is of historic-age.

Photo Number: 28

Date: 1/26/2021

Direction: northeast

Description:
Side view of adjacent single-family residence (pictured above) and metal fence located on the north side of Taft Boulevard at 659 Taft Blvd. Note: this structure is proposed to be displaced under the proposed project. The structure is of historic-age.

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 29

Date: 1/26/2021

Direction: west

Description:
View of existing at-grade railroad crossing of S. Zarzamora Street, south of Frio City Road.

Photo Number: 30

Date: 2/1/2021

Direction: south

Description:
Existing S. Zarzamora Street and Frio City Road signalized intersection.

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 31 **Date:** 2/1/2021 **Direction:** west **Description:** Adjacent tire shop, Lopes Tire Center & Mas, located on the west side of S. Zarzamora Street at 2635 S. Zarzamora St. Note: ROW acquisition and a temporary construction easement are proposed from this property. The structure is of historic-age.	

Photo Number: 32 **Date:** 2/1/2021 **Direction:** northwest **Description:** Adjacent liquor store, Don's & Ben's, located on the west side of S. Zarzamora Street at 2619 S. Zarzamora St. Note: ROW acquisition and a temporary construction easement are proposed from this property. The structure is of historic-age.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 33 **Date:** 2/1/2021 **Direction:** south **Description:** Adjacent single-family residence located on the south side of Harriman Place at 716 Harriman Pl. Note: a temporary construction easement is proposed at this property. The structure is of historic-age.	

Photo Number: 34 **Date:** 2/1/2021 **Direction:** south **Description:** Adjacent single-family residence located on the south side of Harriman Place at 720 Harriman Pl. Note: a temporary construction easement is proposed at this property. The structure is of historic-age.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 35 **Date:** 2/1/2021 **Direction:** southeast **Description:** Adjacent gas station, 7-Eleven, located on the east side of S. Zarzamora Street at 2618 S. Zarzamora St. Note: ROW acquisition and a temporary construction easement are proposed from this property. This facility is a PST site.	

Photo Number: 36 **Date:** 2/1/2021 **Direction:** south **Description:** Existing VIA bus stop located in front of the 7-Eleven (pictured above) on the east side of S. Zarzamora Street. Note: this bus stop would be relocated to the southeast corner of the S. Zarzamora Street and Darby Boulevard intersection.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 37 **Date:** *This image was captured via Google Earth* **Direction:** west **Description:** View of Harriman Place, looking west from S. Zarzamora Street. Note: sidewalks, curb, and pedestrian rail would be constructed on both sides of Harriman Place under the proposed project.	

Photo Number: 38 **Date:** *This image was captured via Google Earth* **Direction:** west **Description:** Adjacent used car dealer, Ruben's Auto Sales, located on the west side of S. Zarzamora Street at 2607 S. Zarzamora St. Note: ROW acquisition and a temporary construction easement are proposed from this property. One or more of the structures are of historic-age.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 39 **Date:** 2/1/2021 **Direction:** north **Description:** Existing VIA bus stop located in front of the Ruben's Auto Sales property (pictured above) on the west side of S. Zarzamora Street. Note: under the proposed project, this bus stop would be relocated slightly to the south of its existing location.	

Photo Number: 40 **Date:** 2/1/2021 **Direction:** north **Description:** Adjacent single-family residence located on the north side of Harriman Place at 713 Harriman Pl. Note: a temporary construction easement is proposed at this property. The structure is of historic-age.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 41

Date: 2/1/2021

Direction: north

Description:
Adjacent single-family residence located on the north side of Harriman Place at 717 Harriman Pl. Note: a temporary construction easement is proposed at this property. The structure is of historic-age.

Photo Number: 42

Date: 2/1/2021

Direction: north

Description:
Adjacent single-family residence located on the north side of Harriman Place at 721 Harriman Pl. Note: a temporary construction easement is proposed at this property. The structure is of historic-age.

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 43 **Date:** 2/1/2021 **Direction:** southwest **Description:** View of S. Zarzamora Street and Darby Boulevard.	

Photo Number: 44 **Date:** *This image was captured via Google Earth* **Direction:** east **Description:** View of Darby Boulevard, looking east to S. Zarzamora Street. Note: under the proposed project, Darby Boulevard would terminate in a proposed cul-de-sac in this location.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

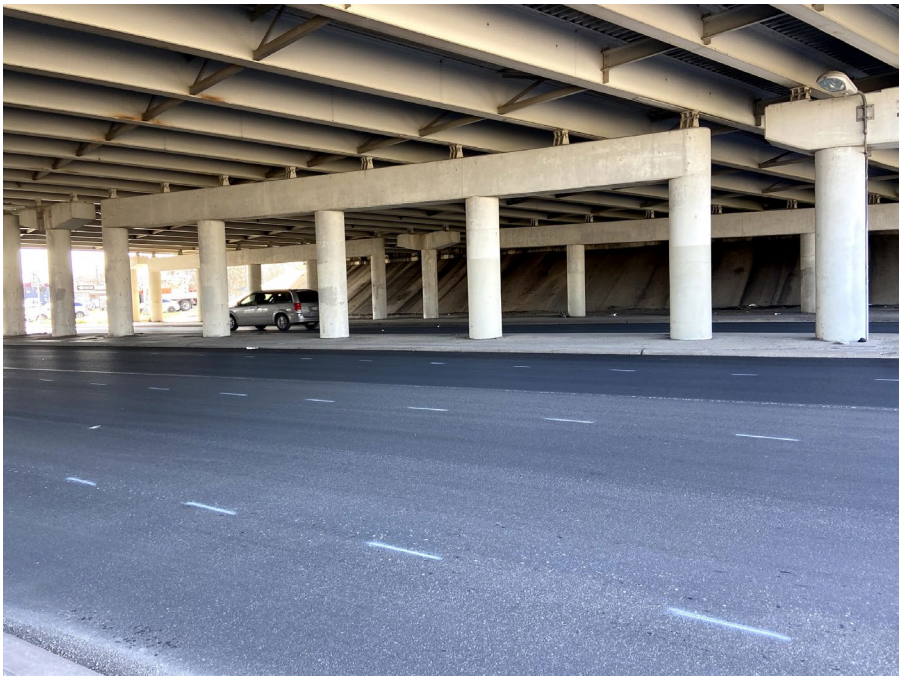
Photo Number: 45 **Date:** *This image was captured via Google Earth* **Direction:** east **Description:** View of Darby Boulevard, looking east from S. Zarzamora Street. Note: a sidewalk would be constructed on the south side of Darby Boulevard under the proposed project.	

Photo Number: 46 **Date:** 2/1/2021 **Direction:** east **Description:** View of eastbound US 90 exit ramp approaching S. Zarzamora Street.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 47 **Date:** 1/226/2021 **Direction:** southeast **Description:** US 90 overpass, view looking southeast.	

Photo Number: 48 **Date:** 1/26/2021 **Direction:** southwest **Description:** View of S. Zarzamora Street under the US 90 overpass.	

PHOTOGRAPHIC LOG

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Photo Number: 49 **Date:** 1/226/2021 **Direction:** east **Description:** View of US 90 bridge structure over S. Zarzamora Street. Note the staining on the pier caps and columns, which could be indicative of bat usage.	

Photo Number: 50 **Date:** 1/26/2021 **Direction:** west **Description:** View of US 90 ROW, looking west. Note, vegetation in this area is limited to maintained, urban vegetation.	

Appendix C
Schematics

Plotted on 6/16/2022

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

CITY OF SAN ANTONIO
PUBLIC WORKS DEPARTMENT

S. ZARZAMORA ST. OVERPASS AT UPRR/FRIO CITY RD.
BEXAR COUNTY

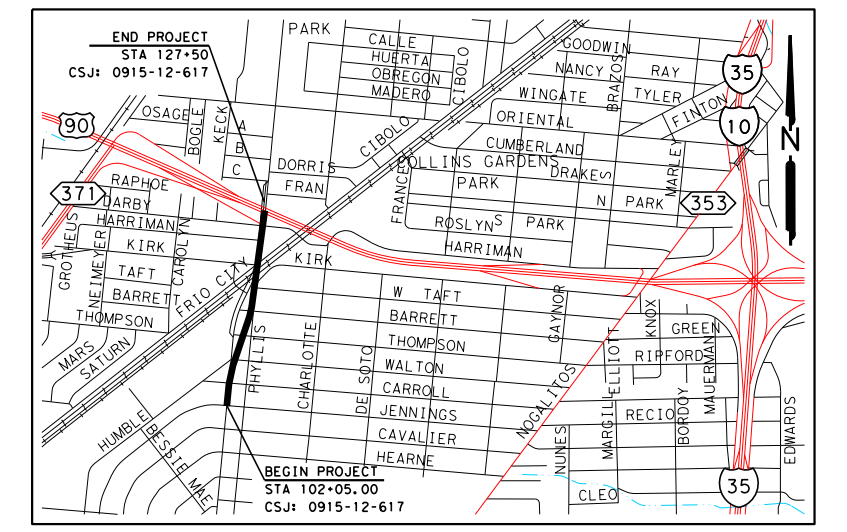
FERERAL AID PROJECT
PROJECT NO.: 23-01612
C.S.J.: 0915-12-617

LIMITS: IN SAN ANTONIO, ON ZARZAMORA
FROM US-90 TO JENNINGS AVE

NET LENGTH OF ROADWAY = 1,228.71 FT = 0.232 MI
NET LENGTH OF BRIDGE = 1,316.29 FT = 0.250 MI
NET LENGTH OF PROJECT = 2,545.00 FT = 0.482 MI

FOR WORK CONSISTING OF GRADING, BASE, BRIDGES, RETAINING WALLS, DRAINAGE STRUCTURES, SIGNING, PAVEMENT MARKINGS, ILLUMINATION, SIGNALS ETC.

LOCATION MAP



VICINITY MAP
N.T.S.

EXCEPTIONS : NONE
EQUATIONS : NONE
RAILROAD CROSSING : ONE

		FUNCTIONAL CLASSIFICATION	DESIGN SPEED
	ZARZAMORA ST	PRINCIPAL ARTERIAL	30 MPH
CROSS STREETS			
	CAVALIER AVE	LOCAL	N/A
	JENNINGS AVE	LOCAL	N/A
	CARROLL AVE	LOCAL	N/A
	WALTON AVE	LOCAL	N/A
	HUMBLE AVE	LOCAL	N/A
	THOMPSON PL	LOCAL	N/A
	BARRETT PL	LOCAL	N/A
	FRIO CITY RD	MINOR ARTERIAL	30 MPH
	KIRK PL	MAJOR COLLECTOR	30 MPH
	HARRIMAN PL	LOCAL	N/A
	DARBY BLVD	LOCAL	N/A
	US 90 EXIT RAMP	PRINCIPAL ARTERIAL	30 MPH

ADT (2026): 18,450
ADT (2056): 28,200
PROPOSED DESIGN STANDARDS (STRUCTURES): LRFD
PROPOSED DESIGN STANDARDS (ROADWAY): TXDOT ROADWAY DESIGN MANUAL, REVISED OCTOBER 2014 CHAPTER 3; 4R, SECTION 3; SUBURBAN ROADWAYS COSA DESIGN GUIDANCE MANUAL
PROPOSED DESIGN STANDARDS (TRAFFIC): TMUTCD & APPLICABLE TRAFFIC STANDARDS
PROPOSED DESIGN STANDARDS (HYDRAULICS):
PLOT SCALE: 1" = 50' (HORZ.)
DATE: 6/16/2022

DESIGN

INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: HEATHER MCNEAL
P.E. SERIAL NO.: 114428
DATE: 6/16/2022

REVIEW AND APPROVAL

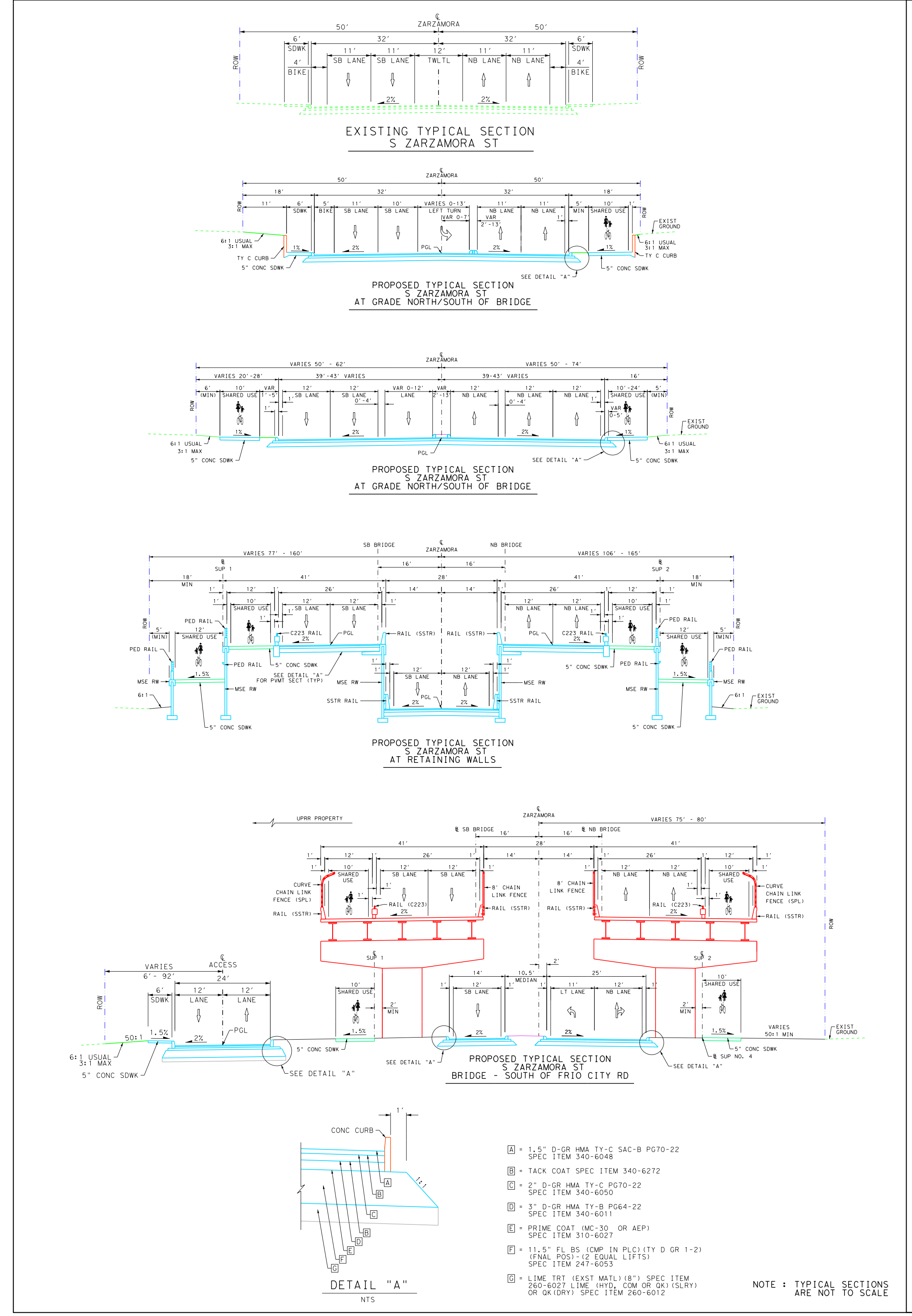
INTERIM REVIEW
DOCUMENT INCOMPLETE. NOT INTENDED FOR PERMIT, BIDDING OR CONSTRUCTION.
ENGINEER: JAMES D. LUTZ
P.E. SERIAL NO.: 84722
DATE: 6/16/2022

STRUCTURAL ENGINEERING ASSOCIATES, INC.
CONSULTING ENGINEERS
TBPE FIRM REG. NO. F-199

PAPE-DAWSON ENGINEERS
SAN ANTONIO | AUSTIN | HOUSTON | FORT WORTH | DALLAS

CITY OF SAN ANTONIO

Design Filename: P:\115\79\01\Design\Exhibits\Schematic 90%\115790_Zarzamora_SCHEM.dgn



EXISTING TYPICAL SECTION
S ZARZAMORA ST
PROPOSED TYPICAL SECTION
S ZARZAMORA ST
AT GRADE NORTH/SOUTH OF BRIDGE
PROPOSED TYPICAL SECTION
S ZARZAMORA ST
AT GRADE NORTH/SOUTH OF BRIDGE
PROPOSED TYPICAL SECTION
S ZARZAMORA ST
AT RETAINING WALLS
PROPOSED TYPICAL SECTION
S ZARZAMORA ST
BRIDGE - SOUTH OF FRIO CITY RD
DETAIL "A"
NTS
A = 1.5" D-GR HMA TY-C SAC-B PG70-22 SPEC ITEM 340-6048
B = TACK COAT SPEC ITEM 340-6272
C = 2" D-GR HMA TY-C PG70-22 SPEC ITEM 340-6050
D = 3" D-GR HMA TY-B PG64-22 SPEC ITEM 340-6011
E = PRIME COAT (MC-30 OR AEP) SPEC ITEM 310-6027
F = 11.5" FL BS (CMP IN PLC)(TY D GR 1-2) (FNAL POS)-(2 EQUAL LIFTS) SPEC ITEM 247-6053
G = LIME TRT (EXST MATL)(8") SPEC ITEM 260-6027 LIME (HYD, COM OR QK)(SLRY) OR QK(DRY) SPEC ITEM 260-6012
NOTE : TYPICAL SECTIONS ARE NOT TO SCALE

Describe Chain ZARZA_CL

Chain ZARZA_CL contains:
10 CUR CL_ZARZA_3 CUR CL_ZARZA_6 11 CUR CL_ZARZA_11 CUR CL_ZARZA_12 12

Beginning chain ZARZA_CL description
****

Point 10 N 13,692,441.6455 E 2,117,725.1896 Sta 100+00.00

Course from 10 to PC CL_ZARZA_3 N 5° 45' 52.07" E Dist 648.2505

Curve Data

Curve CL_ZARZA_3				
P.I. Station	107+85.74	N 13,693,223.4147	E 2,117,804.1090
Delta =	13° 04' 21.05" (RT)		
Degree =	4° 46' 28.73"		
Tangent =	137.4920		
Length =	273.7901		
Radius =	1,200.0000		
External =	7.8510		
Long Chord =	273.1966		
Mid. Ord. =	7.8000		
P.C. Station	106+48.25	N 13,693,086.6179	E 2,117,790.2994
P.T. Station	109+22.04	N 13,693,353.5428	E 2,117,848.5019
C.C.		N 13,692,966.0908	E 2,118,984.2312
Back =	N 5° 45' 52.07" E		
Ahead =	N 18° 50' 13.13" E		
Chord Bear =	N 12° 18' 02.60" E		

Course from PT CL_ZARZA_3 to PC CL_ZARZA_6 N 18° 50' 13.13" E Dist 757.1246

Curve Data

Curve CL_ZARZA_6			
P.I. Station	117+48.23	N 13,694,135.4776	E 2,118,115.2575
Delta =	11° 16' 07.60" (LT)		
Degree =	8° 11' 06.40"		
Tangent =	69.0598		
Length =	137.6741		
Radius =	700.0000		
External =	3.3984		
Long Chord =	137.4523		
Mid. Ord. =	3.3819		
P.C. Station	116+79.17	N 13,694,070.1166	E 2,118,092.9598
P.T. Station	118+16.84	N 13,694,203.9358	E 2,118,124.3532
C.C.		N 13,694,296.1302	E 2,117,430.4510
Back =	N 18° 50' 13.13" E		
Ahead =	N 7° 34' 05.53" E		
Chord Bear =	N 13° 12' 09.33" E		

Course from PT CL_ZARZA_6 to 11 N 7° 34' 05.53" E Dist 804.7709

Point 11 N 13,695,001.6962 E 2,118,230.3465 Sta 126+21.61

Course from 11 to PC CL_ZARZA_11 N 7° 34' 05.53" E Dist 241.4501

Curve Data

Curve CL_ZARZA_11			
P.I. Station	129+87.14	N 13,695,364.0443	E 2,118,278.4895
Delta =	3° 38' 40.61" (RT)		
Degree =	1° 28' 08.84"		
Tangent =	124.0823		
Length =	248.0809		
Radius =	3,900.0000		
External =	1.9734		
Long Chord =	248.0391		
Mid. Ord. =	1.9724		
P.C. Station	128+63.06	N 13,695,241.0429	E 2,118,262.1470
P.T. Station	131+11.14	N 13,695,485.7581	E 2,118,302.6177
C.C.		N 13,694,727.3884	E 2,122,128.1733
Back =	N 7° 34' 05.53" E		
Ahead =	N 11° 12' 46.14" E		
Chord Bear =	N 9° 23' 25.83" E		

Curve Data

Curve CL_ZARZA_12			
P.I. Station	131+51.16	N 13,695,525.0155	E 2,118,310.4000
Delta =	4° 35' 01.18" (LT)		
Degree =	5° 43' 46.48"		
Tangent =	40.0213		
Length =	80.0000		
Radius =	1,000.0000		
External =	0.8005		
Long Chord =	79.9787		
Mid. Ord. =	0.7999		
P.C. Station	131+11.14	N 13,695,485.7581	E 2,118,302.6177
P.T. Station	131+91.14	N 13,695,564.7693	E 2,118,315.0202
C.C.		N 13,695,680.2119	E 2,117,321.7060
Back =	N 11° 12' 46.14" E		
Ahead =	N 6° 37' 44.95" E		
Chord Bear =	N 8° 55' 15.55" E		

Course from PT CL_ZARZA_12 to 12 N 6° 37' 44.95" E Dist 26.4841

Point 12 N 13,695,591.0763 E 2,118,318.0776 Sta 132+17.63

****
Ending chain ZARZA_CL description

Describe Chain ZARZA_NB

Chain ZARZA_NB contains:
13 CUR ZARZA_NB_3 14

Beginning chain ZARZA_NB description
Feature: Geom_Ramp
****

Point 13 N 13,693,348.3767 E 2,117,863.6450 Sta 309+22.04

Course from 13 to PC ZARZA_NB_3 N 18° 50' 13.13" E Dist 757.1246

Curve Data

Curve ZARZA_NB_3			
P.I. Station	317+49.80	N 13,694,131.8056	E 2,118,130.9103
Delta =	11° 16' 07.60" (LT)		
Degree =	8° 00' 07.93"		
Tangent =	70.6383		
Length =	140.8209		
Radius =	716.0000		
External =	3.4760		
Long Chord =	140.5941		
Mid. Ord. =	3.4592		
P.C. Station	316+79.16	N 13,694,064.9506	E 2,118,108.1028
P.T. Station	318+19.99	N 13,694,201.8285	E 2,118,140.2138
C.C.		N 13,694,296.1302	E 2,117,430.4510
Back =	N 18° 50' 13.13" E		
Ahead =	N 7° 34' 05.53" E		
Chord Bear =	N 13° 12' 09.33" E		

Course from PT ZARZA_NB_3 to 14 N 7° 34' 05.53" E Dist 804.7709

Point 14 N 13,694,999.5889 E 2,118,246.2072 Sta 326+24.76

****
Ending chain ZARZA_NB description

Describe Chain ZARZA_SB

Chain ZARZA_SB contains:
15 CUR ZARZA_SB3_3 16

Beginning chain ZARZA_SB description
****

Point 15 N 13,693,358.7088 E 2,117,833.3589 Sta 209+22.04

Course from 15 to PC ZARZA_SB3_3 N 18° 50' 13.13" E Dist 757.1246

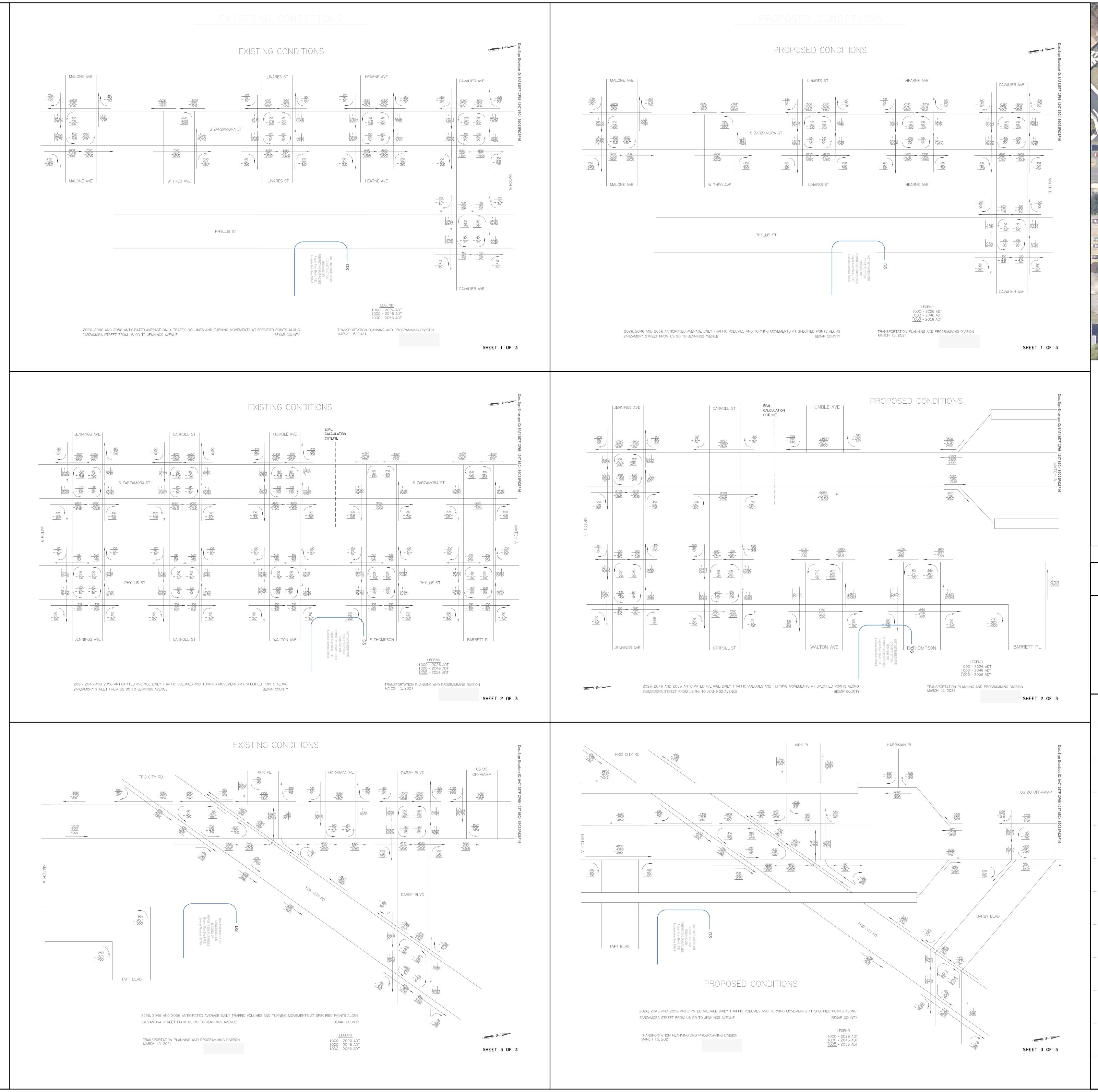
Curve Data

Curve ZARZA_SB3_3			
P.I. Station	217+46.65	N 13,694,139.1497	E 2,118,099.6048
Delta =	11° 16' 07.60" (LT)		
Degree =	8° 22' 35.67"		
Tangent =	67.4813		
Length =	134.5272		
Radius =	684.0000		
External =	3.3207		
Long Chord =	134.3105		
Mid. Ord. =	3.3046		
P.C. Station	216+79.16	N 13,694,075.2826	E 2,118,077.8167
P.T. Station	218+13.69	N 13,694,206.0431	E 2,118,108.4925
C.C.		N 13,694,296.1302	E 2,117,430.4510
Back =	N 18° 50' 13.13" E		
Ahead =	N 7° 34' 05.53" E		
Chord Bear =	N 13° 12' 09.33" E		

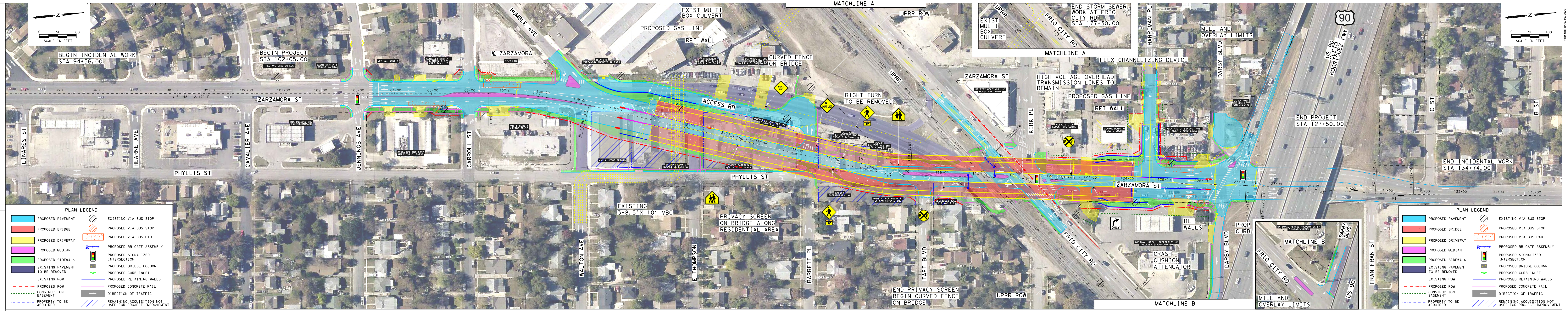
Course from PT ZARZA_SB3_3 to 16 N 7° 34' 05.53" E Dist 804.7709

Point 16 N 13,695,003.8035 E 2,118,214.4859 Sta 226+18.46

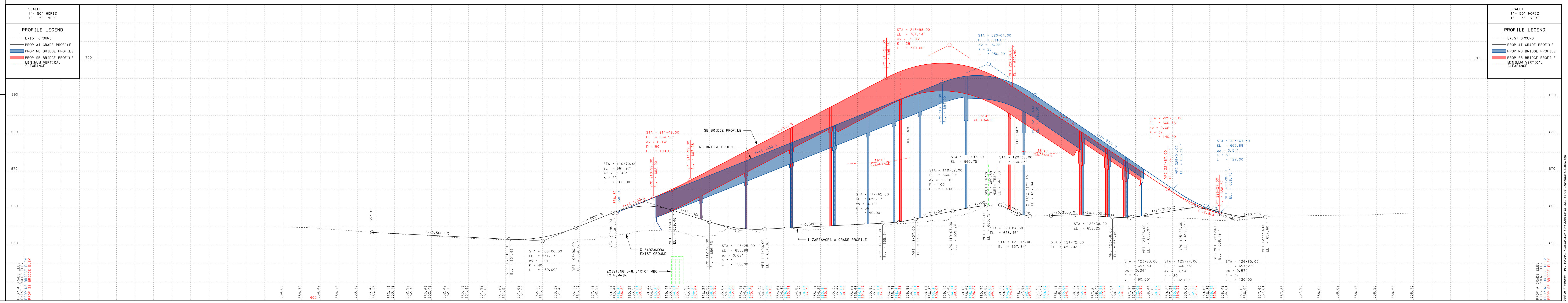
****
Ending chain ZARZA_SB description



EXISTING CONDITIONS
PROPOSED CONDITIONS
2026, 2046 AND 2056 ANTICIPATED AVERAGE DAILY TRAFFIC VOLUMES AND TURNING MOVEMENTS AT SPECIFIED POINTS ALONG ZARZAMORA STREET FROM US 90 TO JENNINGS AVENUE
BEXAR COUNTY
TRANSPORTATION PLANNING AND PROGRAMMING DIVISION
MARCH 15, 2021
SHEET 1 OF 3
SHEET 2 OF 3
SHEET 3 OF 3



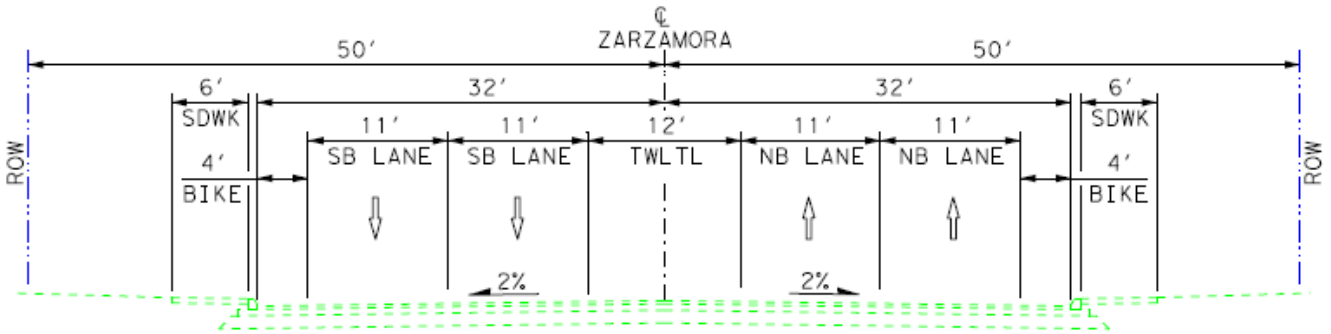
SCALE IN FEET
0 50 100
BEGIN INCIDENTAL WORK
STA 94+56.00
BEGIN PROJECT
STA 102+05.00
℄ ZARZAMORA
ZARZAMORA ST
LINARES ST
HEARNE AVE
CAVALIER AVE
JENNINGS AVE
CARROLL ST
PHYLLIS ST
HUMBLE AVE
WALTON AVE
E THOMPSON
BARRETT PL
TAFT BLVD
EXISTING 3-8.5'X 10' MBC
PRIVACY SCREEN ON BRIDGE ALONG RESIDENTIAL AREA
END PRIVACY SCREEN BEGIN CURVED FENCE ON BRIDGE
MATCHLINE A
MATCHLINE B
EXIST MULTI BOX CULVERT
PROPOSED GAS LINE
RET WALL
CURVED FENCE ON BRIDGE
ACCESS RD
RIGHT TURN TO BE REMOVED
UPRR ROW
UPRR
FRIO CITY RD
ZARZAMORA ST
KIRK PL
HIGH VOLTAGE OVERHEAD TRANSMISSION LINES TO REMAIN
PROPOSED GAS LINE
RET WALL
END STORM SEWER WORK AT FRIO CITY RD STA 177+30.00
FLEX CHANNELIZING DEVICE
HARRIMAN PL
MILL AND OVERLAY LIMITS
DARBY BLVD
US 90 CLETO RODRIGUEZ FWY
END PROJECT STA 127+50.00
END INCIDENTAL WORK STA 134+74.00
C ST
B ST
RET WALLS
PROP CURB
CRASH CUSHION ATTENUATOR
FRAN FRAN ST
PLAN LEGEND
PROPOSED PAVEMENT
PROPOSED BRIDGE
PROPOSED DRIVEWAY
PROPOSED MEDIAN
PROPOSED SIDEWALK
EXISTING PAVEMENT TO BE REMOVED
EXISTING ROW
PROPOSED ROW
CONSTRUCTION EASEMENT
PROPERTY TO BE ACQUIRED
EXISTING VIA BUS STOP
PROPOSED VIA BUS STOP
PROPOSED VIA BUS PAD
PROPOSED RR GATE ASSEMBLY
PROPOSED SIGNALIZED INTERSECTION
PROPOSED BRIDGE COLUMN
PROPOSED CURB INLET
PROPOSED RETAINING WALLS
PROPOSED CONCRETE RAIL
DIRECTION OF TRAFFIC
REMAINING ACQUISITION NOT USED FOR PROJECT IMPROVEMENT



SCALE:
1"= 50' HORIZ
1" 5' VERT
PROFILE LEGEND
EXIST GROUND
PROP AT GRADE PROFILE
PROP NB BRIDGE PROFILE
PROP SB BRIDGE PROFILE
MINIMUM VERTICAL CLEARANCE
SB BRIDGE PROFILE
NB BRIDGE PROFILE
℄ ZARZAMORA @ GRADE PROFILE
℄ ZARZAMORA EXIST GROUND
EXISTING 3-8.5'X10' MBC TO REMAIN
23'4" CLEARANCE
16'6" CLEARANCE
UPRR ROW
SOUTH TRACK
NORTH TRACK
FRIO CITY RD
PROP @ GRADE ELEV
EXIST GROUND ELEV
PROP NB BRIDGE ELEV
PROP SB BRIDGE ELEV

Plotted on 6/16/2022

Appendix D
Typical Sections



EXISTING TYPICAL SECTION
S ZARZAMORA ST

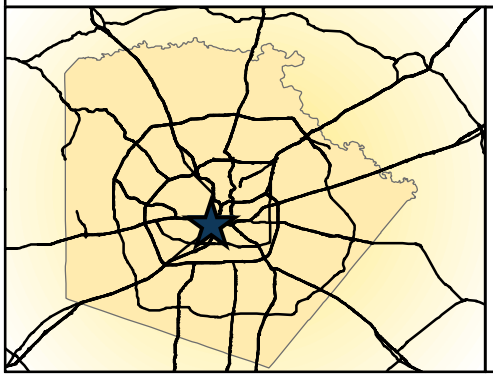
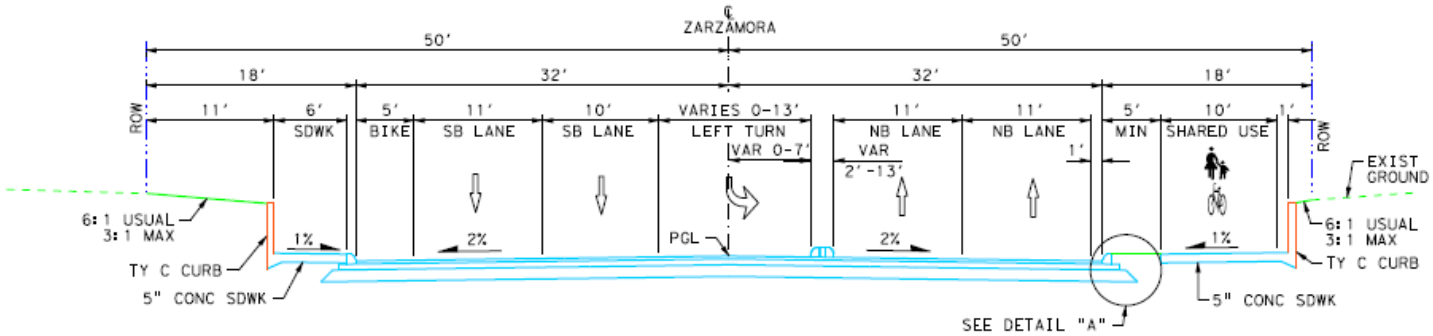
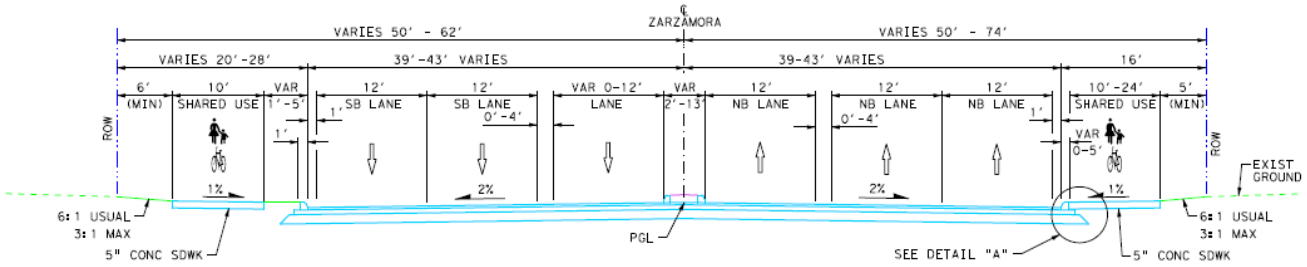


Exhibit 1
Existing Typical Section

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617



PROPOSED TYPICAL SECTION
S ZARZAMORA ST
AT GRADE NORTH/SOUTH OF BRIDGE



PROPOSED TYPICAL SECTION
S ZARZAMORA ST
AT GRADE NORTH/SOUTH OF BRIDGE

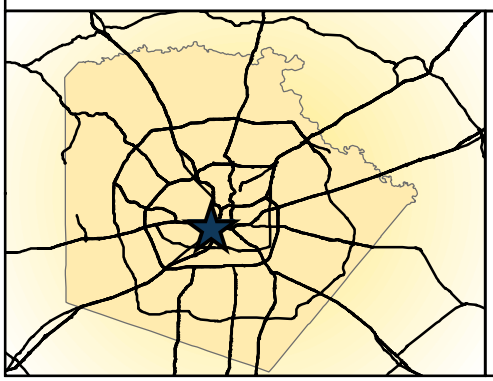
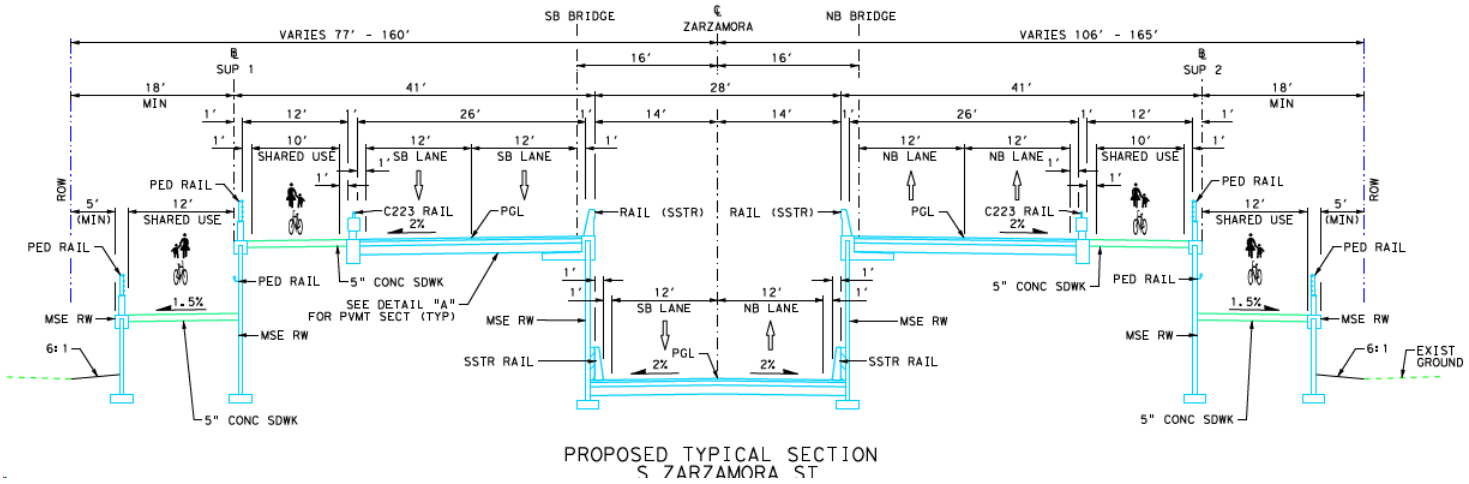
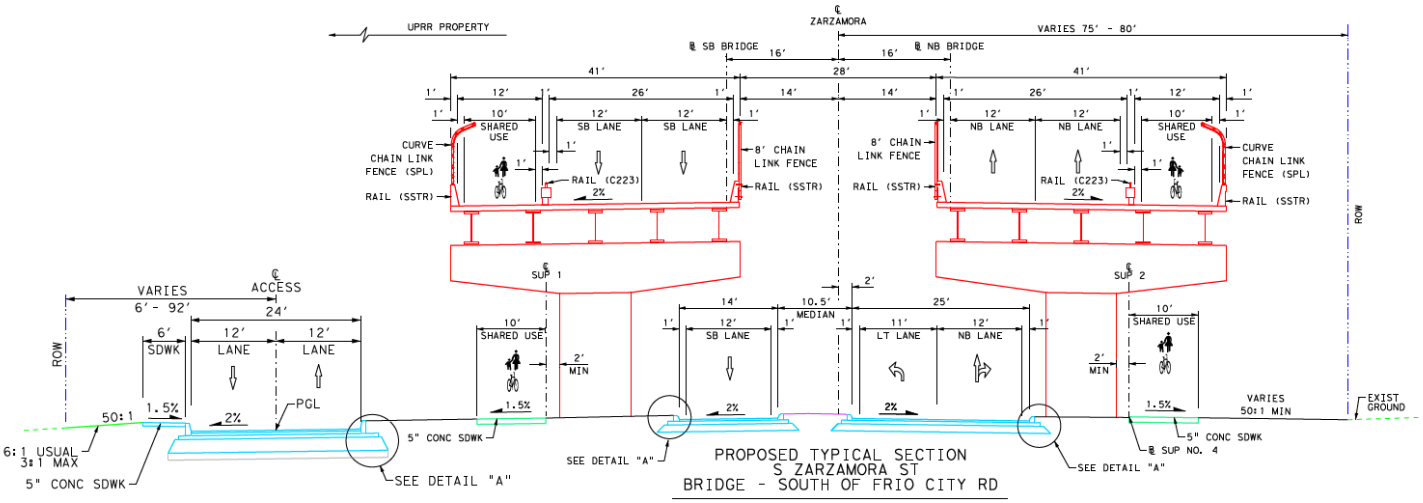


Exhibit 2
Proposed Typical Sections
(Sheet 1 of 2)
South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617



PROPOSED TYPICAL SECTION
S ZARZAMORA ST



PROPOSED TYPICAL SECTION
S ZARZAMORA ST
BRIDGE - SOUTH OF FRIO CITY RD

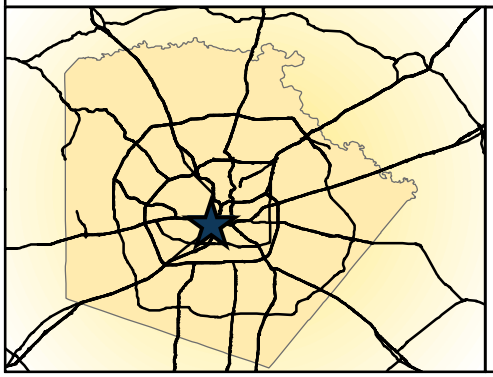


Exhibit 2
Proposed Typical Sections
(Sheet 2 of 2)
South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Appendix E
Resource-Specific Maps

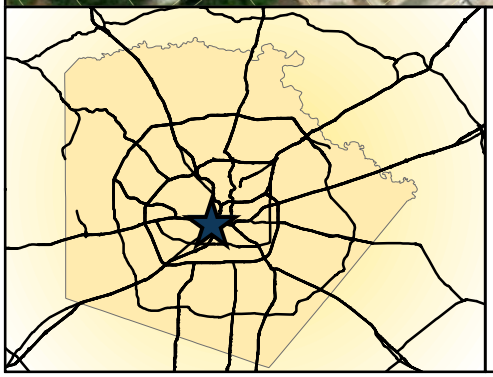


Exhibit 1
Proposed Right of Way and Easements

(Sheet 1 of 3)
South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

N

0 90 180 360 540 Feet

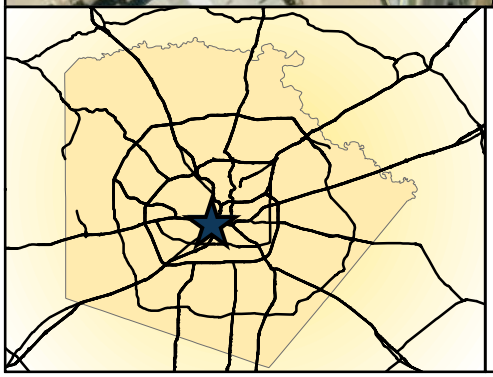


Exhibit 1
Proposed Right of Way and Easements

(Sheet 2 of 3)
South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

N

0 90 180 360 540 Feet

Exhibit 1
Proposed Right of Way and Easements

(Sheet 3 of 3)
South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

N

0 90 180 360 540 Feet

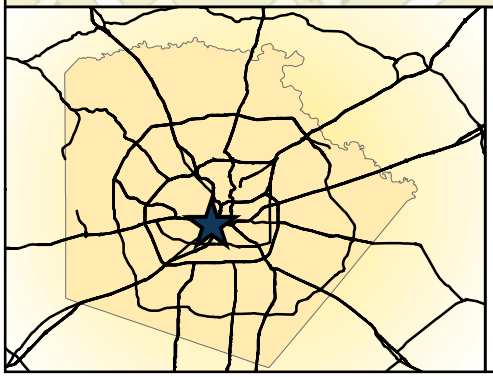


Exhibit 2
Potential Displacements

(Sheet 1 of 3)
South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

N

0 90 180 360 540 Feet

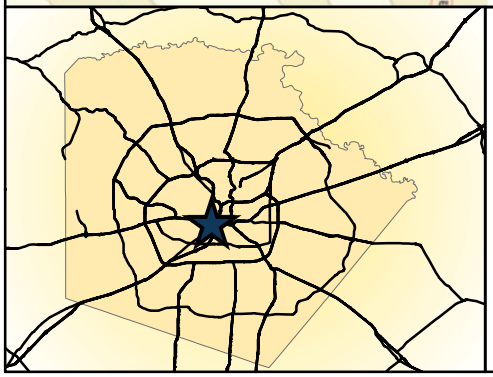


Exhibit 2
Potential Displacements
(Sheet 2 of 3)
South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

N

0 90 180 360 540 Feet

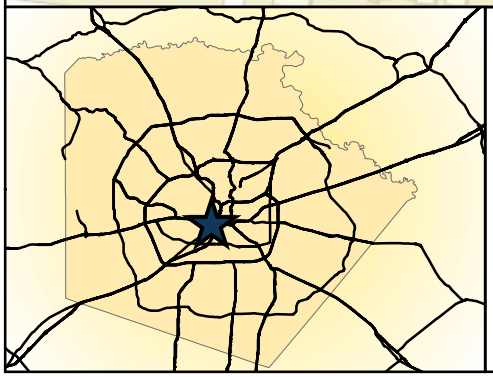
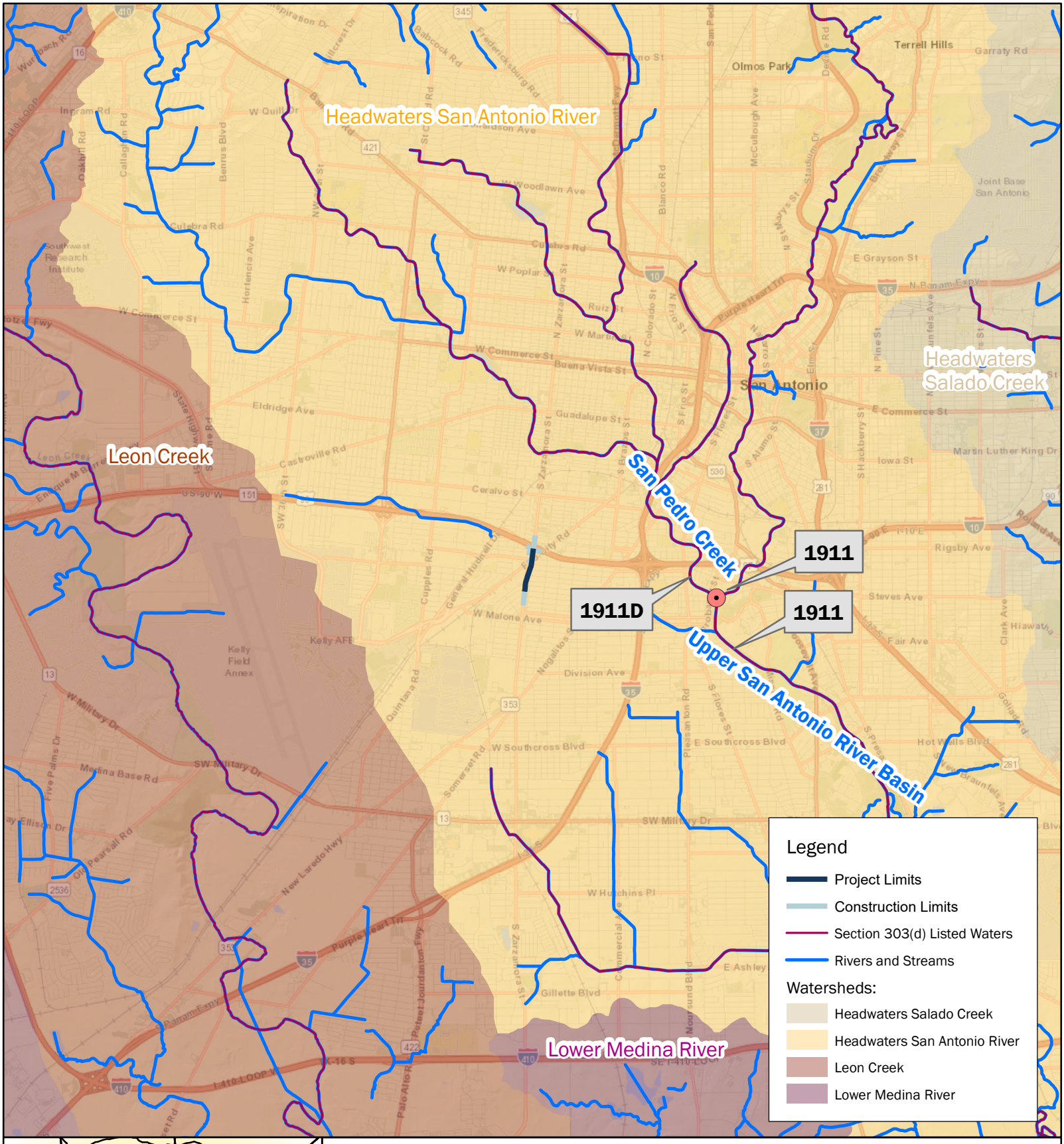


Exhibit 2
Potential Displacements
(Sheet 3 of 3)
South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

N

0 90 180 360 540 Feet



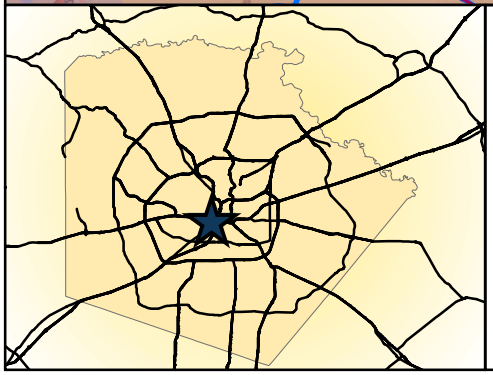


Exhibit 3
Section 303(d) Listed Waters

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 915-12-617

N

0 0.5 1 2 3 Miles

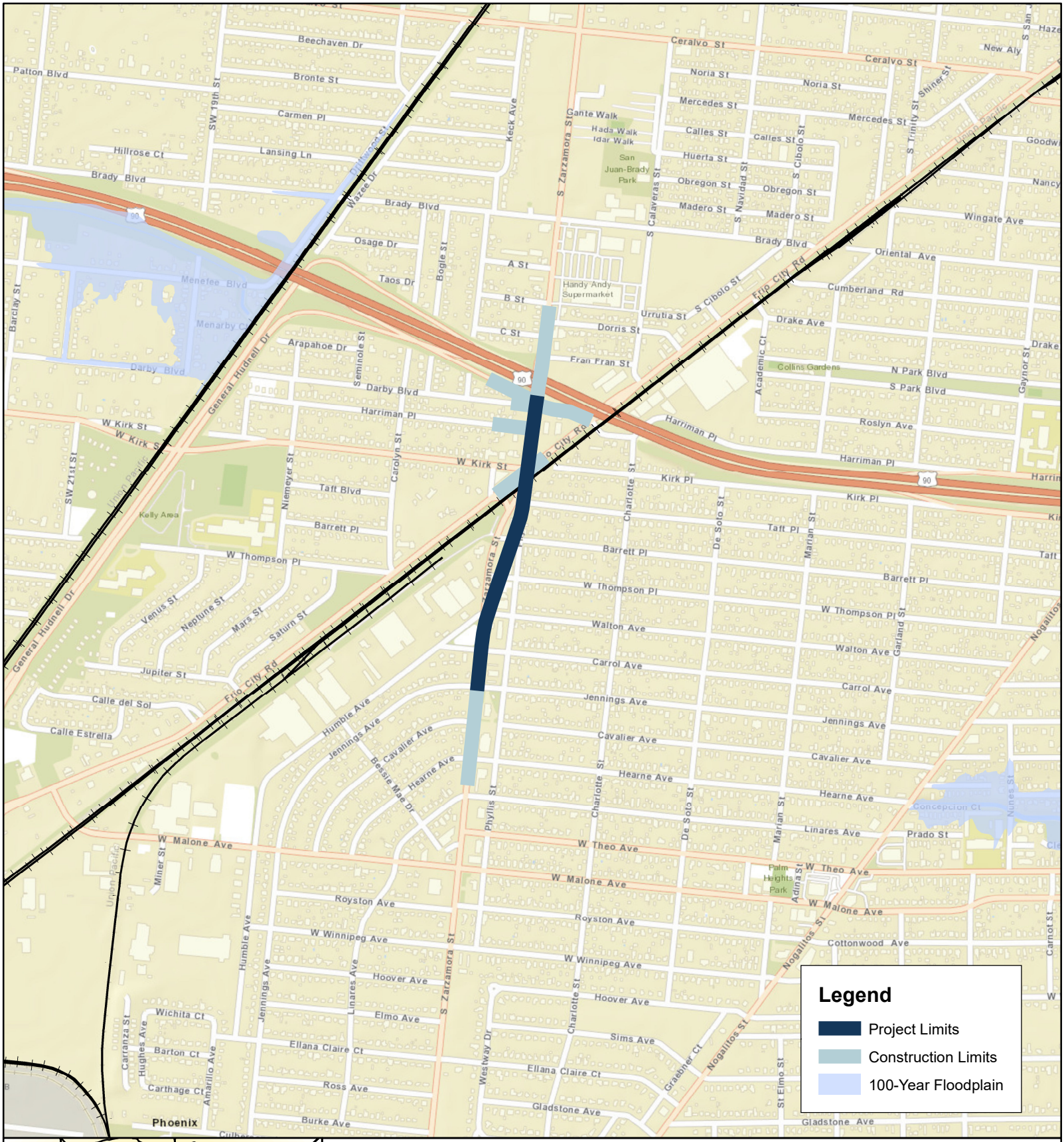


Exhibit 4
Floodplain

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 915-12-617

N

0 462.5 925 1,850 2,775 Feet

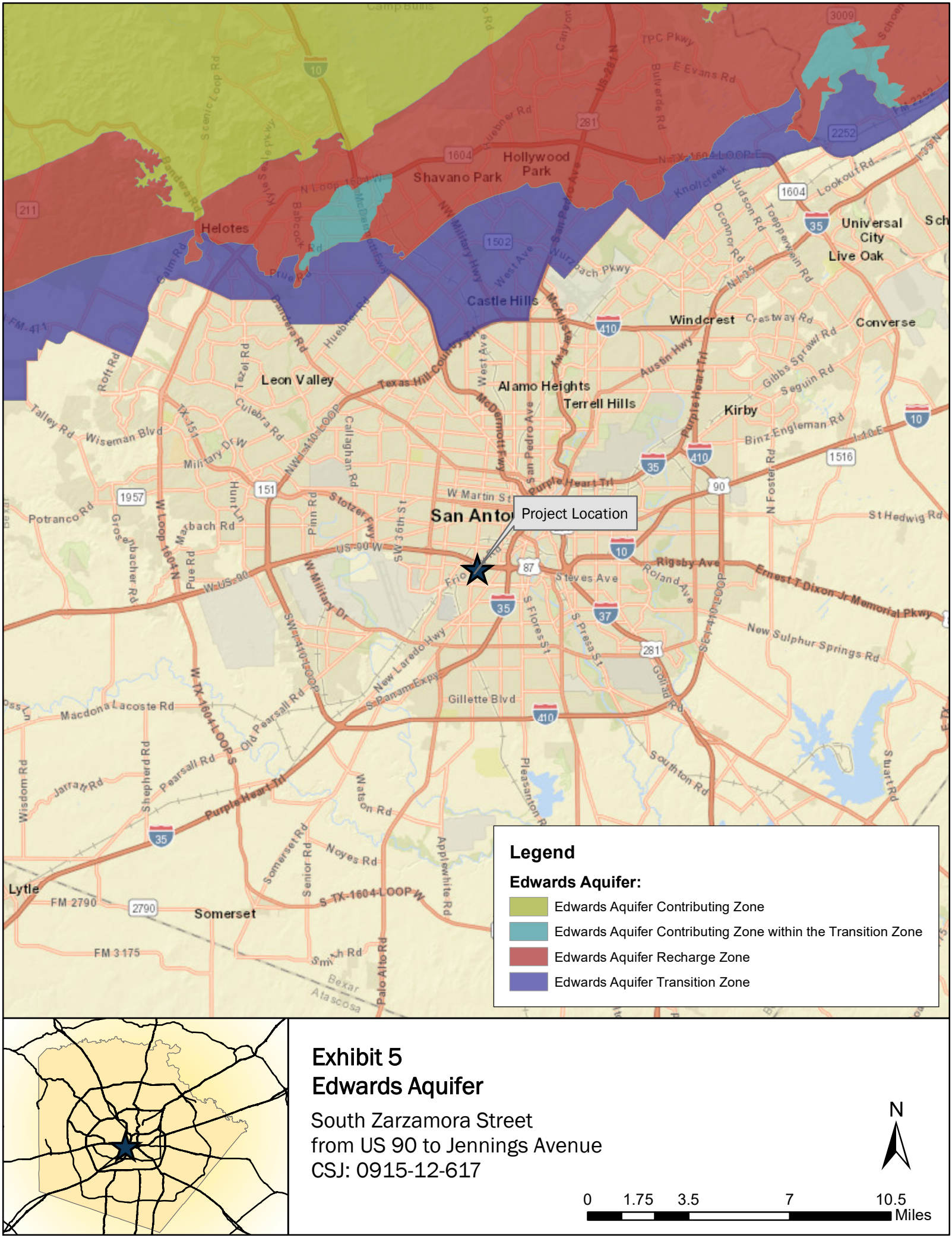


Exhibit 5
Edwards Aquifer

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

N

0 1.75 3.5 7 10.5 Miles

Exhibit 6
Unresolved Hazardous Materials Sites

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 915-12-617

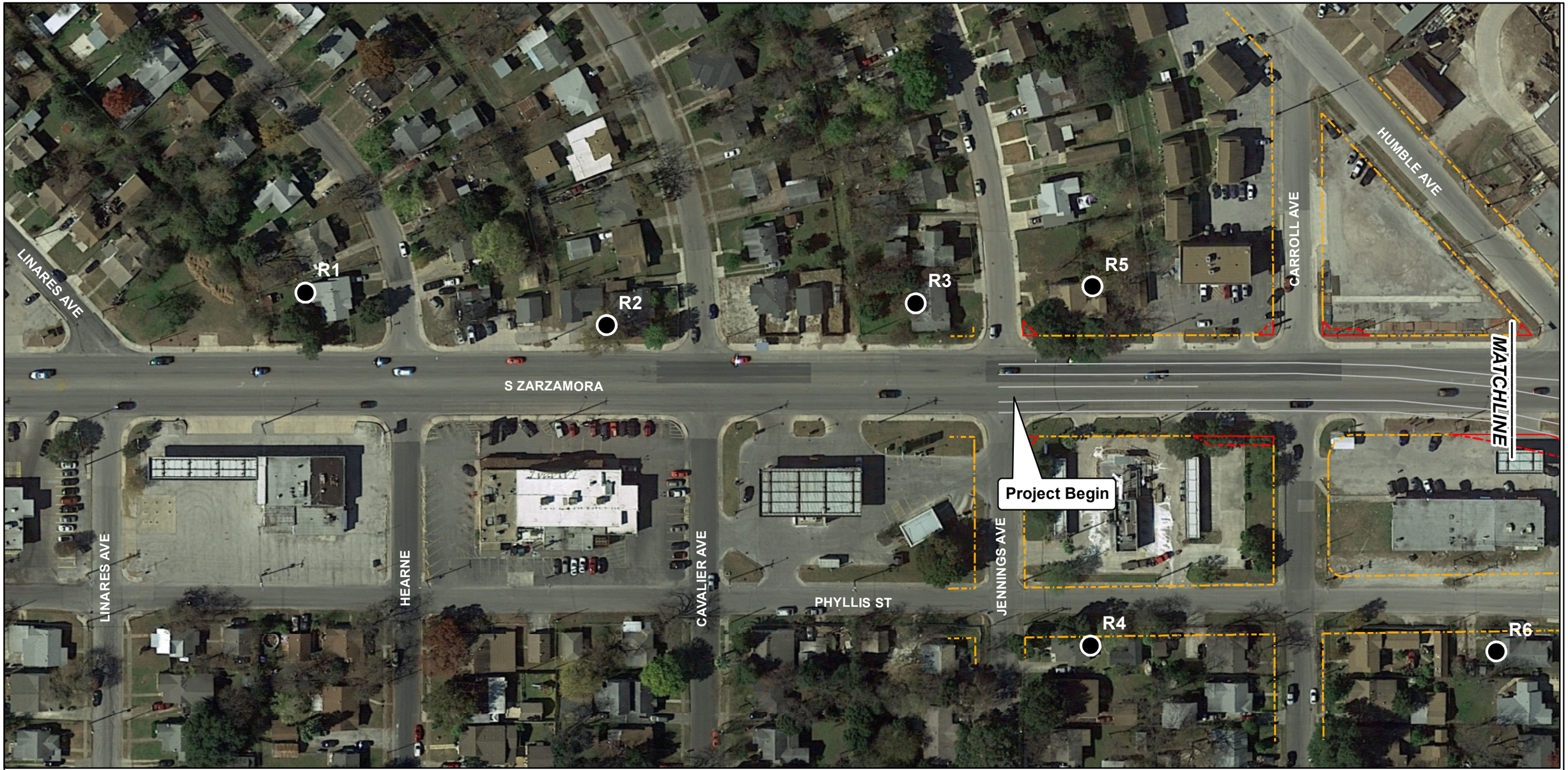


EXHIBIT 7
Noise Analysis Results

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Receivers

● **R-# : Not Impacted**

Proposed Right of Way

Existing Right of Way

Proposed Alignment

Proposed Acquisition

N

0 50 100 200 300 400

Feet

EXHIBIT 7
Noise Analysis Results

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Receivers

- **R-# : Not Impacted**
- Proposed Right of Way
- Existing Right of Way
- Proposed Alignment
- Proposed Acquisition

N

0 50 100 200 300 400 Feet

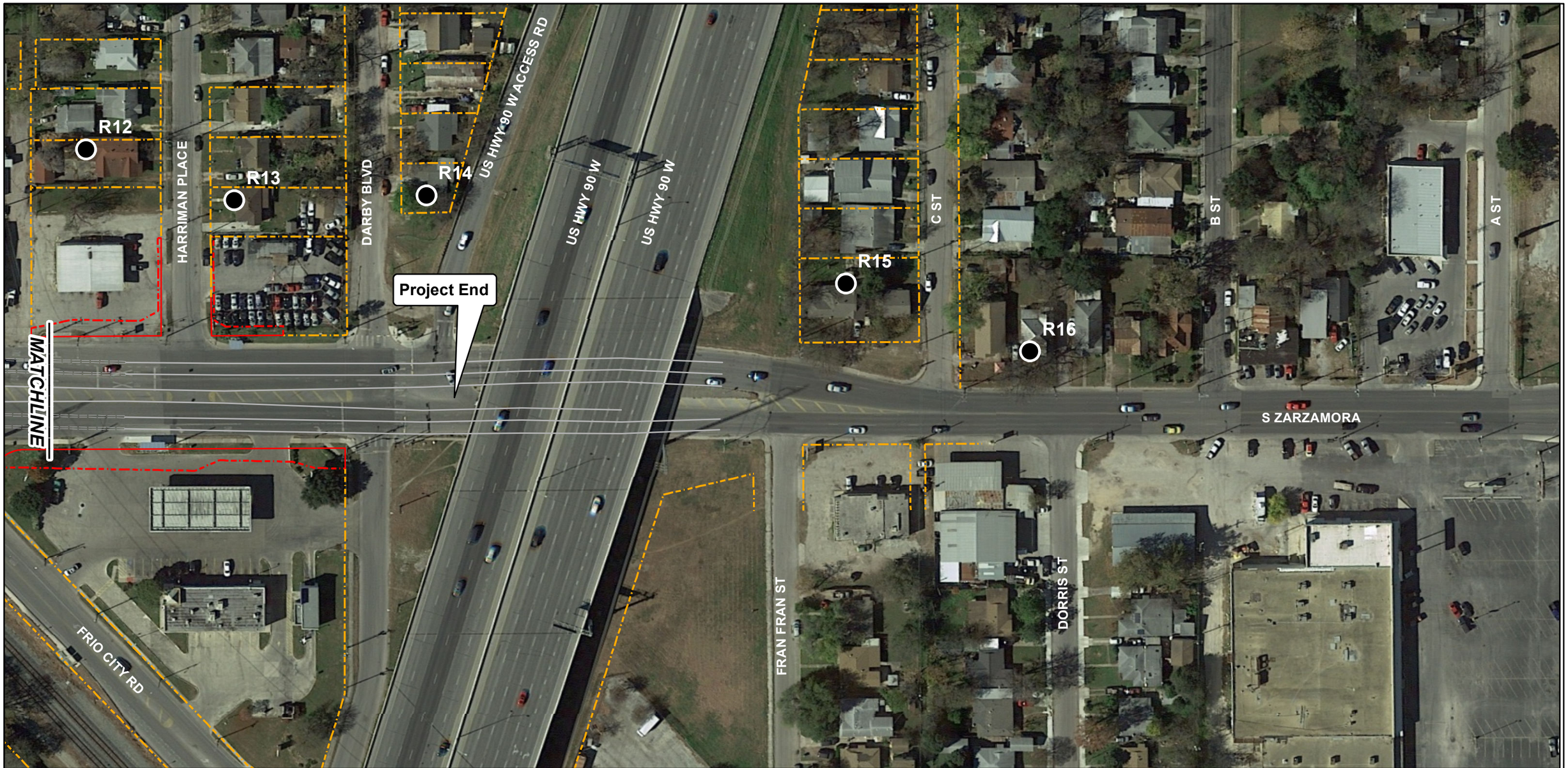


EXHIBIT 7
Noise Analysis Results

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 0915-12-617

Receivers

● **R-# : Not Impacted**

Proposed Right of Way

Existing Right of Way

Proposed Alignment

Proposed Acquisition

N

0 50 100 200 300 400 Feet

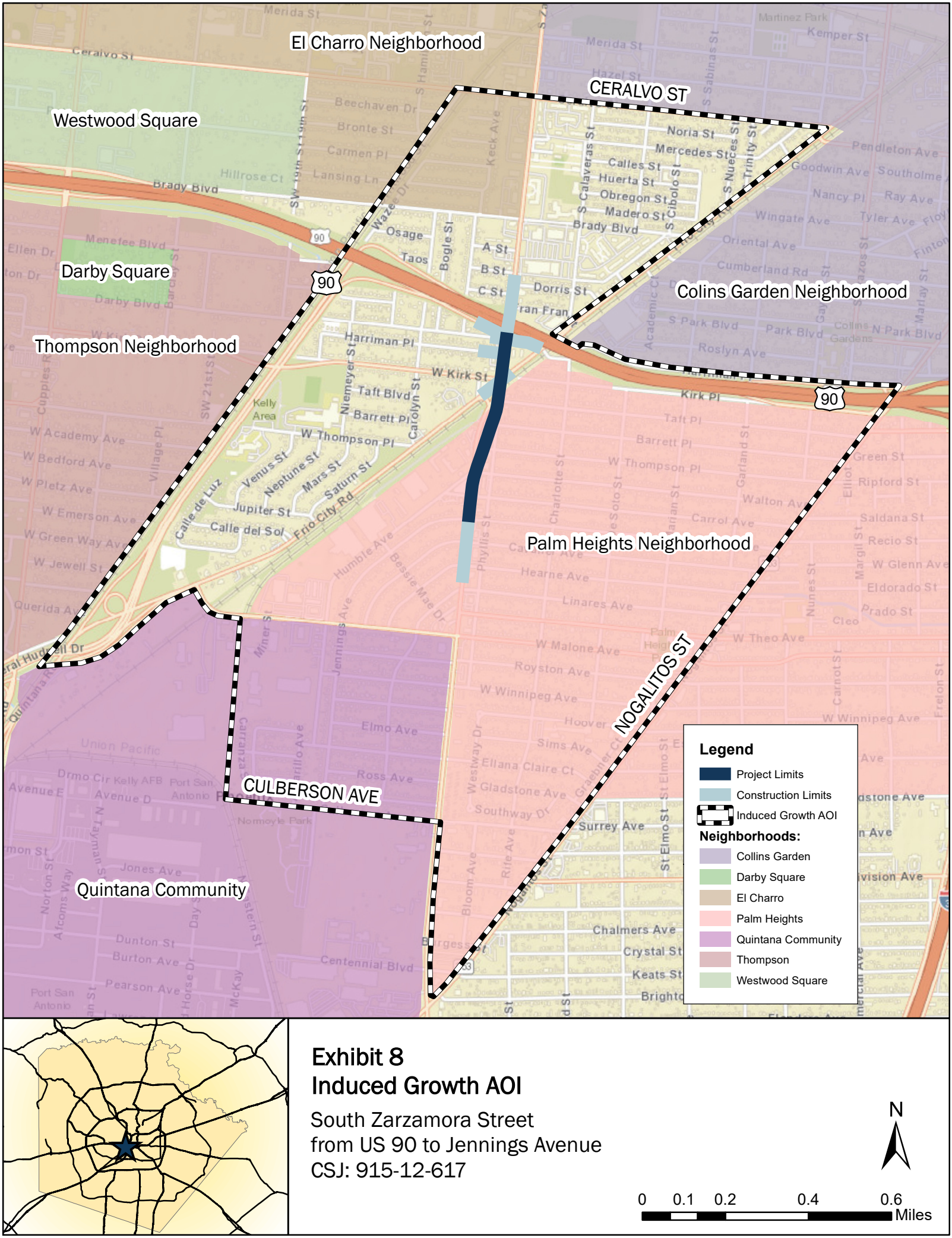


Exhibit 8
Induced Growth AOI

South Zarzamora Street
from US 90 to Jennings Avenue
CSJ: 915-12-617

N

0 0.1 0.2 0.4 0.6 Miles

Appendix F
Resources Agency Coordination

Back To List

Assignment Details ★ Activity

Print this Page

Coordinate Archeology Background Study

Associated Activity: Perform Archeology Background Study

Agency Name: Environmental - Archeology(ENV-A)

Coordination Status: Completed

Are Correspondence Details Included: Yes

Add Correspondence

Correspondence Status:

Correspondence Method:

Correspondence Date :

Correspondence From:

Correspondence To:

Comments: Spell

Correspondence For	Correspondence Type	Date	Correspondence From	Correspondence To	Comments	Actions
Sent Information	Other	04/20/2022	JA	PM	Request for internal review and approval.	
Response received - no futher action	Other	04/22/2022	JA	PM	Internal review and approval of a finding of no archeological historic properties affected and recommendation for no further work, as permitted under PA and MOU.	

Comments: Spell

Last Updated By: Jennifer Anderson **Last Updated Date:** 04/22/2022 09:25:10

Back To List

Assignment Details ★ Activity

Print this Page

Coordinate Archeology Background Study

Associated Activity: Perform Archeology Background Study

Agency Name: Native American Tribal Coordination(NA)

Coordination Status: Completed

Are Correspondence Details Included: Yes

Add Correspondence

Correspondence Status:

Correspondence Method:

Correspondence Date :

Correspondence From:

Correspondence To:

Comments:

Correspondence For	Correspondence Type	Date	Correspondence From	Correspondence To	Comments	Actions
Sent Information	Email	03/08/2019	TxDOT	Tribes	Request for Section 106 consultation sent to following recipients: Kickapoo Traditional Tribe of Texas, Kickapoo Tribe of Oklahoma, Kiowa Tribe, Mescalero Apache Tribe, Absentee Shawnee Tribe of Oklahoma, Alabama-Quassarte Tribal Town, Caddo Nation, Seminole Nation of Oklahoma, Tonkawa Tribe of Oklahoma, Alabama-Coushatta Tribe of Texas, Apache Tribe of Oklahoma, Comanche Nation of Oklahoma	
No Response received - review time expired	Email	04/20/2022	Tribes	TxDOT	No response received. Review time expired.	

Comments:

Last Updated By: Paul Matchen **Last Updated Date:** 04/20/2022 08:07:42

Texas Department of Transportation

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

5 May 2023

SECTION 106 REVIEW: DETERMINATION OF NO ADVERSE EFFECT
SECTION 4(f) REVIEW: NOTIFICATION OF INTENT TO RENDER *DE MINIMIS* SECTION 4(f) FINDING

District: San Antonio
County: Bexar
CSJ#: 0915-12-617
Highway: Zarzamora
Project Limits: From US 90 to Jennings Avenue
Section 4(f) Property: (former) K.O. Steel Castings, Inc.

Mr. Justin Kockritz
History Programs
Texas Historical Commission
Austin, Texas 78711

Dear Mr. Kockritz:

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. As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency. In accordance with 36 CFR 800 and our 2015 Section 106 Programmatic Agreement for Transportation Undertakings (PA), this letter initiates Section 106 consultation on the project.

Project Description

See the attachment from TxDOT's Environmental Compliance Oversight System (ECOS) that describes the project, setting, and amount of right-of-way (ROW) and easements necessary for the project.

Determinations of Eligibility

Using the Texas Historical Commission's (THC) Historic Sites Atlas and TxDOT's Historic Resources Aggregator and ECOS project files, TxDOT historians reviewed the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and other TxDOT files to identify historically significant resources previously documented within the Area of Potential Effect (APE).

Per our PA, TxDOT historians established the project's APE as 150 feet from the outer edge of proposed ROW and easements and on both sides of the roadway. In addition, TxDOT used a 1,300-foot study area from the edge of the APE to develop the context for understanding any properties within the APE.

Based on the construction let date, TxDOT surveyed properties within the APE built in or prior to 1979. The associated November 2022 Historic Resources Survey Report (HRSR) documented resources that met that requirement. The HRSR includes a total of 96 historic-age resources evaluated for NRHP eligibility as well as 49 non-historic-age resources that were photographed and included in the inventories but not evaluated. The HRSR also includes evaluation of the properties for possible inclusion in historic commercial or residential districts.

Based on the HRSR, TxDOT determined that one property within the APE is **eligible** for NRHP listing:

- **Resource 45**—2915 S Zarzamora St.—the former K.O. Steel Castings property—TxDOT determined this property **eligible** under Criterion A for Industry, at the local level of significance, with contributing resources 45A–D and 45F–I (see HRSR pp. 18 and 19 for discussion, as well as survey forms on pp. 142 through 158).

TxDOT determined that the other surveyed properties within the APE are **not eligible** for NRHP listing. Of note, this includes six historic-age properties that will be displaced by or otherwise be directly affected by the project:

- **Resource 28A**—2702 S. Zarzamora St.—Although recognizable as a c. 1950 drive-in restaurant, the property does not demonstrate sufficient significance or integrity for NHRP inclusion (see HRSR pp. 23 through 25 for discussion, as well as survey forms on pp. 91 through 96). TxDOT determined the property is **not eligible** for listing in the NRHP.
- **Resource 29A—**705 Barrett Pl.—Oscar's Taco House—A popular local restaurant, the property has gone through a number of alterations and has low integrity to its historic period (see HRSR p. 26 through 29 for discussion, as well as survey forms on pp. 97 through 101). TxDOT determined the property is **not eligible** for listing in the NRHP.
- **Resource 30A—**663 Barrett Pl.—This c. 1930 residence with minimal Craftsman detailing has diminished integrity due to alterations (see HRSR p. 31 for discussion and survey forms on pp. 102 and 103). TxDOT determined it not individually significant or part of an eligible historic district and is **not eligible** for listing in the NRHP.
- **Resource 36A—**2802 S. Zarzamora St.—This c. 1935 former Texaco station does not rise to the level of significance for NRHP eligibility under Criterion A for its history related to local transportation or community development (see HRSR discussion on p. 31 and survey forms on pp 117–119). It was not an early or notable area service station, has undergone changes in ownership and use over time, and is not part of an NRHP-eligible historic district. Changes to material and alterations to the building's fenestration and office entry fall under the Tier 2 (Moderate) integrity issues outlined in TxDOT's *A Field Guide to Gas Stations in Texas*, diminishing its ability to convey Criterion C significance for Architecture. TxDOT determined the property is **not eligible** for listing in the NRHP.
- **Resource 50—**2914 S. Zarzamora St.—This c. 1950 former garage for Southwestern Bell Telephone was converted to a warehouse space at an unknown date (see HRSR pp. 31–32 for discussion and survey forms on pp. 168–170). Windows are boarded up or possibly missing or filled in, but the building shows no distinguishing design

characteristics and has no demonstrable historical significance. TxDOT determined the property is **not eligible** for listing in the NRHP.

- **Resource 57A**—3002 S. Zarzamora St.—The property, dating to c. 1970, is a typical commercial strip center with a gas station and various businesses set back from the road by a parking lot (see HRSR p. 29 for discussion and survey forms on pp. 183–185). The property does not demonstrate historical significance and has the typical changes associated with such developments, including signage and individual shopfront treatments based on business types. TxDOT determined the property is **not eligible** for listing in the NRHP.

The HRSR documents and evaluates these and the other surveyed properties, with the recommendation that only Resource 45 has sufficient significance and integrity for NRHP eligibility as individual properties or within potential districts.

Determinations of Effect

The project proposes a temporary construction easement from Resource 45 for approximately 0.003 acres. None of the contributing resources are within the footprint of the proposed easement, although two non-historic-age components of the property may be affected—a chain link fence and a sign. Based on this easement being minimal and temporary, and because the project will not otherwise affect any of the characteristics that enable the property to convey its historic significance. TxDOT determined the project would have **no adverse effect** on Resource 45, the historic K.O. Steel Castings property. The main entrance to the property will remain operational and accessible to trucks when the project is complete, and the secondary entrance is not within the project limits and not anticipated to need modifications due to the project.

Consulting Parties

In addition to consulting with your office, TxDOT historians provided an electronic copy of the HRSR to the City of San Antonio's Office of Historic Preservation (OHP) and the Bexar County Historical Commission (CHC) on March 22 and offered the opportunity for a consultation meeting. TxDOT met with OHP staff on March 29 and went through the HRSR findings, focused especially on the properties that will be displaced by the project. TxDOT then sent information to the Bexar CHC with notes from the OHP meeting and to make sure they were able to access the HRSR. To date, OHP and the CHC have not sent formal responses on the project, but any that TxDOT receives will be forwarded to you. In addition to the Section 106 consultation, the City of San Antonio held a public meeting on the project as a whole, prior to the historic resources survey, and comments received related to historic properties are summarized on pages eight through ten of the report and are also documented in the Public Involvement records in ECOS.

Determination of *De Minimis* Finding

As part of this coordination, TxDOT determined that the proposed project meets the requirements for a Section 4(f) *de minimis* impact finding under 23 CFR 774. TxDOT based its determination on the fact that the temporary easement on the historic K.O. Steel Castings property amounts to no effects to contributing resources, effects to less than 0.1% of the property's overall acreage, and **no adverse effect** to the NRHP-eligible property.

Conclusion

In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings, I hereby request your signed concurrence with TxDOT's finding of **no adverse effect** to the NRHP-eligible K.O. Steel Castings property (Resource 45). We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the afore-mentioned MOU dated December 9, 2019.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety, and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please contact me at 512/871-9747 or linda.henderson@txdot.gov.

Sincerely,

DocuSigned by:
BCD2B2E1F7EF495...
Linda Henderson

thru: Renee Benn, HIST Project Lead: DS _____

CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:

HISTORIC PROPERTY PRESENT: NRHP-ELIGIBLE K.O. STEEL CASTINGS

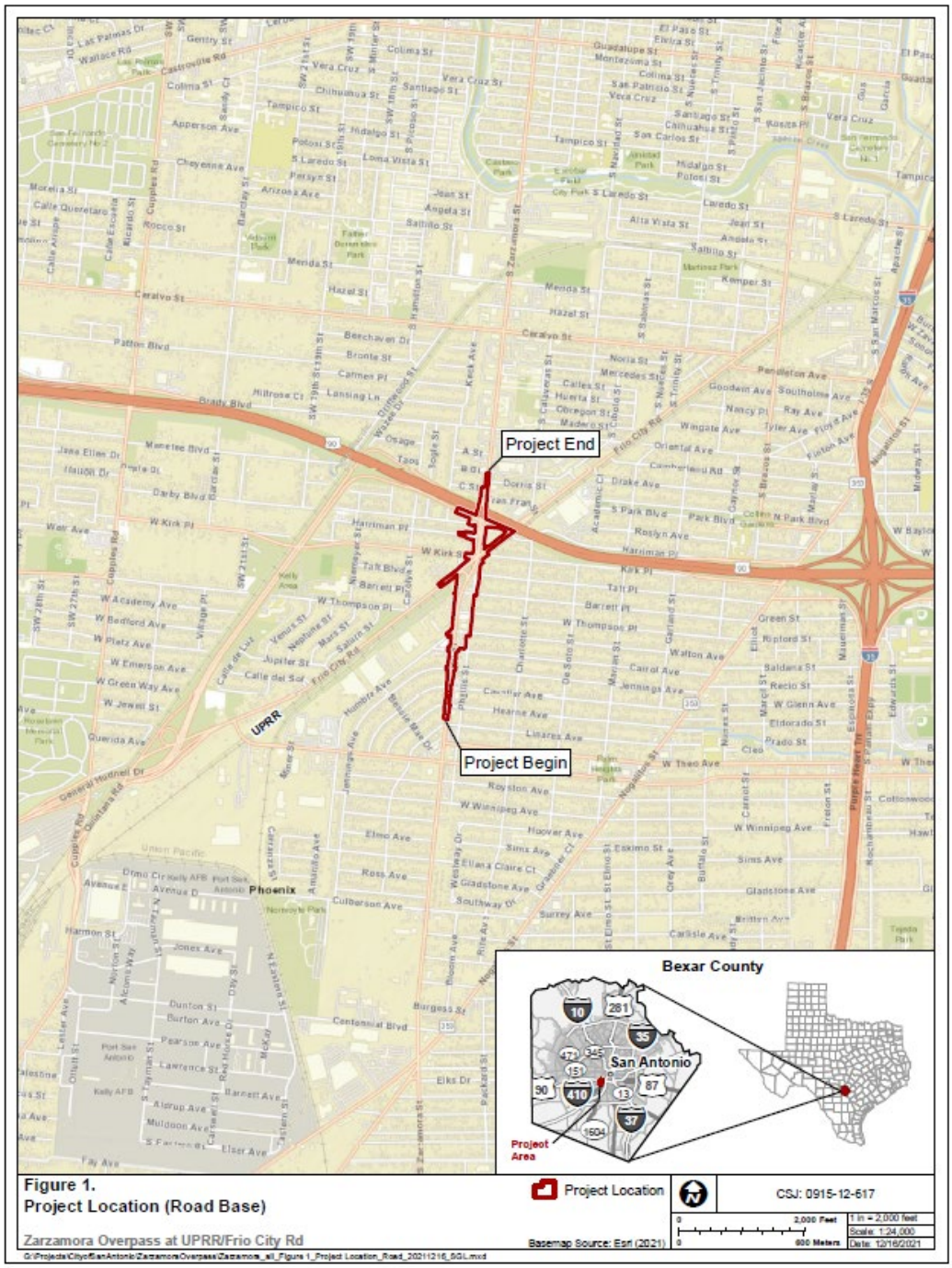
NO ADVERSE EFFECT: K.O. STEEL CASTINGS

NAME: _____ DATE:_____
for Mark Wolfe, State Historic Preservation Officer

NO COMMENTS ON DETERMINATION OF DE MINIMIS IMPACT UNDER SECTION 4(F) REGULATIONS

NAME: _____ DATE:_____
for Mark Wolfe, State Historic Preservation Officer

Exhibits excerpted from HRSR



HRSR Figure 1, project location

Photos of Resources 45A (above) and 45F (below), two of the resources contributing to the **eligible** former K.O. Steel Castings complex at 2915 S Zarzamora St.

TxDOT determined this property **eligible** under Criterion A for Industry, at the local level of significance, with contributing resources 45A–D and 45F–I (see HRSR pp. 18 and 19 for discussion, as well as survey forms on pp. 142 through 158).

Resource 45—2915 S Zarzamora St.—the former K.O. Steel Castings property—This partial view of Figure 5 from the HRSR shows the property boundary. Solid red lines are new ROW, but the orange-red line at the SE corner of the property is the temporary construction easement needed for the project, which will have no adverse effect on the **eligible** property.

Resource 28A—2702 S. Zarzamora St.—Although recognizable as a c. 1950 drive-in restaurant, the property does not demonstrate sufficient significance or integrity for NHRP inclusion (see HRSR pp. 23 through 25 for discussion, as well as survey forms on pp. 91 through 96). TxDOT determined the property is **not eligible** for listing in the NRHP.

Resource 29A—705 Barrett Pl.—Oscar's Taco House—A popular local restaurant, the property has gone through a number of alterations and has low integrity to its historic period (see HRSR p. 26 through 29 for discussion, as well as survey forms on pp. 97 through 101). TxDOT determined the property is **not eligible** for listing in the NRHP.

Resource 30A—663 Barrett Pl.—This c. 1930 residence with minimal Craftsman detailing has diminished integrity due to alterations (see HRSR p. 31 for discussion and survey forms on pp. 102 and 103). TxDOT determined it not individually significant or part of an eligible historic district and is **not eligible** for listing in the NRHP.

Resource 36A—2802 S. Zarzamora St.—This c. 1935 former Texaco station does not rise to the level of significance for NRHP eligibility under Criterion A for its history related to local transportation or community development (see HRSR discussion on p. 31 and survey forms on pp 117–119). TxDOT determined the property is **not eligible** for listing in the NRHP.

Resource 50—2914 S. Zarzamora St.—This c. 1950 former garage for Southwestern Bell Telephone was converted to a warehouse space at an unknown date (see HRSR pp. 31–32 for discussion and survey forms on pp. 168–170). TxDOT determined the property is **not eligible** for listing in the NRHP.

Resource 57A—3002 S. Zarzamora St.—The property, dating to c. 1970, is a typical commercial strip center with a gas station and various businesses set back from the road by a parking lot (see HRSR p. 29 for discussion and survey forms on pp. 183–185). TxDOT determined the property is **not eligible** for listing in the NRHP.

Back To List

- WPD Section I - Project Definition
- WPD Section II - Tool
- WPD Section III - Project Work Plan
- WPD Section IV - Findings

Print this Page

Project Definition

Project Name: Zarzamora (0915-12-617)

CSJ: 0915 - 12 - 617

Anticipated Environmental Classification: EA

No — Is this an FHWA project that normally requires an EIS per 23 CFR 771.115(a)?

Project Association(s)

Auto Associate CSJ from DCIS

Manually Associate CSJ:

CSJ	DCIS Funding	DCIS Number	Env Classification	DCIS Classification	Main or Associate	Doc Tracked In	Actions

There are currently no Project Associations added to this project.

DCIS Project Funding and Location

Funding

DCIS Funding Type:

☑ Federal ☐ State ☑ Local ☐ Private

Location

DCIS Project Number: STP ( )MM

Highway: CS

District: SAN ANTONIO

County: BEXAR

Project Limit -- From: IN SAN ANTONIO, ON ZARZAMORA

Project Limit -- To: US-90 TO JENNINGS AVE.

Begin Latitude: + 29 . 3988752

Begin Longitude: - 98 . 5308200

End Latitude: + 29 . 3920919

End Longitude: - 98 . 5324284

DCIS & P6 Letting Dates

DCIS District: 11/26

DCIS Approved:

DCIS Actual:

P6 Ready To Let:

P6 Proposed Letting:

DCIS Project Description

Type of Work: Spell

Layman's Description:

CONSTRUCT BRIDGE

DCIS Project Classification: INC - INTERCHANGE

Design Standard:

Roadway Functional Classification: 3 - Rural principal arterial

Jurisdiction

No — Does the project cross a state boundary, or require a new Presidential Permit or modification of an existing Presidential Permit?

Who is the lead agency responsible for the approval of the entire project?

☑ FHWA - Assigned to TxDOT ☐ TxDOT - No Federal Funding ☐ FHWA - Not Assigned to TxDOT

Local Government — Who is the project sponsor as defined by 43 TAC 2.7?

Yes — Is a local government's or a private developer's own staff or consultant preparing the CE documentation, EA or EIS?

Yes — Does the project require any federal permit, license, or approval?

☐ USACE ☐ IBWC ☐ USCG ☐ NPS ☐ IAJR ☑ Other Federal Railroad Administration

No — Does the project occur, in part or in total, on federal or tribal lands?

Environmental Clearance Project Description

Project Area

Typical Depth of Impacts: 4 (Feet) Maximum Depth of Impacts: 65 (Feet)

New ROW Required: 2.6 (Acres)

New Perm. Easement Required: 0 (Acres) New Temp. Easement Required: 1.2 (Acres)

Project Description

Describe Limits of All Activities: Spell

The proposed project would extend for a total of 0.8 mile along S. Zarzamora St., from approximately 50 ft north of Linares St. to B Street. The proposed project would realign S. Zarzamora St. and would require the acquisition of right of way (ROW), primarily from the east side of the roadway, resulting in a new ROW width ranging from approximately 100 to 300 feet. The existing ROW width is approximately 100 feet.

Realignment of S. Zarzamora St. would require the permanent closure of several local roadways, including Walton Ave., E. Thompson Pl., and Barrett Place. These local roadways would be permanently closed from S. Zarzamora St. to Phyllis Street.

Work on Frio City Rd. would extend from approximately 320 ft west of S. Zarzamora St. to approximately 180 feet east of S. Zarzamora Street. Work on Harriman Pl. would extend west of S. Zarzamora St. for approximately 300 feet. Work on Darby Blvd. would extend from approximately 185 ft west of S. Zarzamora St. to Frio City Road. Work on the US 90 eastbound frontage road would extend west of S. Zarzamora St. for approximately 395 feet. Tie-in work at the remaining cross-streets would extend for less than 200 ft at each of the remaining intersections.

Describe Project Setting: Spell

The project area is located in an urban area within the City of San Antonio, in central Bexar County. Substantial traffic generators in the vicinity of the project area include Port San Antonio, Lackland Air Force Base (Kelly Field Annex), several schools (e.g., Storm Elementary, Lowell Middle School, George E. Kelly Elementary, Charles Graebner Elementary, etc.), several parks and greenways (e.g., Apache Creek Greenway, Alazan Creek Park, Kennedy Park, etc.), and several residential neighborhoods (e.g., Palm Heights, Thompson, Quintana, Collins Garden, etc.).

Within and adjacent to the project area, land use is mixed-use with adjacent commercial, industrial, and single-family residential properties. Adjacent properties include multiple gas stations, restaurants, auto repair shops, and commercial strip centers, as well as single-family residences. A Union Pacific Railroad (UPRR) line, running parallel to Frio City Rd., crosses the project limits.

There are several historic-age structures within and adjacent to the project area, including structures at seven properties that are proposed to be displaced under the project.

The project is located within the San Antonio River watershed; however, there are no surface waters within or adjacent to the proposed project. The project is not located within the Edwards Aquifer Recharge or Contributing Zones.

Vegetation within and adjacent to the project area primarily consists of urban, maintained vegetation.

There are two adjacent leaking petroleum storage tank (LPST) sites to the project area – the former On the Go Food Mart located at 3402 S. Zarzamora Street and the CPS Tire Shop (former Lou Conoco) located at 2320 S. Zarzamora Street. There are four petroleum storage tank (PST) sites adjacent to the project limits, including (1) Haifa Market (3002 S. Zarzamora St.), (2) 7 Eleven (2618 S. Zarzamora St.), (3) former On the Go Food Mart (3402 S. Zarzamora St.), and Circle K (3210 S. Zarzamora St); ROW acquisition is proposed from the Haifa Market and 7 Eleven properties. One water well is located within an area of proposed ROW at the Nogalitos Gear Transmission Service property (2910 S. Zarzamora St.).

Describe Existing Facility: Spell

Within the project limits, S. Zarzamora St. is a five-lane, non-controlled access, at-grade, principal arterial roadway within an existing ROW width of approximately 100 feet. The existing typical section consists of two 11-foot travel lanes in each direction, a 12-foot center left-turn lane, 4-ft bike lanes in each direction, and 6-foot sidewalks in each direction.

Drainage is accommodated within the project limits via a curb-and-gutter system.

There are no existing permanent easements within the project limits.

Describe Proposed Facility: Spell

The proposed project would realign S. Zarzamora St. within the project limits to construct a grade separation over the Frio City Rd./UPPR intersection. The project would require the acquisition of ROW, including the partial acquisition of nine parcels, complete acquisition of nine parcels, and temporary construction easements at nine parcels. Approximately six commercial and two residential displacements are proposed, including displacement of Nogalitos Gear Transmission Service, San Antonio Auto Glass, Ozuna's Automotive, Oscar's Taco House, El Comalito, a vacant commercial warehouse, and two single-family residences.

From Jennings Ave. to Humble Ave./Walton Ave., the proposed project would remove the existing center left-turn lane, add a southbound left-turn lane, and replace the existing bike lane and sidewalk on the east side of the roadway with a shared-used path. In this section, S. Zarzamora St. would typically consist of two at grade 10- to 11-ft travel lanes in each direction, a 0- to 13-ft southbound left-turn lane, a 5-ft bike lane and 6-ft sidewalk on the west side of the roadway, and a 10-ft shared-use path on the east side of the roadway. A traffic signal would be added at Jennings Ave., which is currently an unsignalized intersection.

From Humble Ave./Walton Ave. to Harriman Pl., northbound and southbound overpasses would be constructed to provide grade separation over the UPRR crossing. The overpasses would consist of two bridges (northbound and southbound bridges), each with two 12-ft travel lanes and a 10-ft shared-use path. In this section, S. Zarzamora St. would be realigned, which would result in the

No Would the project add capacity?

Transportation Planning

Yes Is the project within an MPO's boundaries?

No Does the project meet the definition for a grouped category for planning and programming purposes?

The project is located in Non-Attainment/Maintenance area.

This status applies to:

- ☐ CO - Carbon Monoxide
- ☑ O3 - Ozone
- ☐ NO2 - Nitrogen Dioxide
- ☐ PM10 - Particulate
- ☐ PM2.5 - Particulate

Environmental Clearance Information

Environmental Clearance Date:

Environmental LOA Date:

Closed Date:

Archived Date:

Approved Environmental Classification:

Project Contacts

Created By: Barrlynn West Jr

Date Created: 01/20/2021

Project Sponsor: ○ TXDOT (Or) ◉ Local Government

Sponsor Point Of Contact:

ENV Core Team Member: Lindsey Kimmitt - Environmental Specialist

District Core Team Member: Barrlynn West Jr - Environmental Specialist

Other Point of Contact(s): Spell

Last Updated By: System Admin

Last Updated Date: 02/03/2023 07:12:24

Form

Documentation of Texas Parks and Wildlife Department Best Management Practices

Project Name: **Zarzamora (0915-12-617)**

CSJ(s): **0915-12-617**

County(ies): **Bexar County**

Date Form Completed: **April 17, 2023**

Prepared by: **Jackie Lopez, Sr. Environmental Specialist, Poznecki-Camarillo**

Information on state-listed species, SGCN, water resources, and other natural resources can be found in the ECOS documents tab under the filenames specified in the e-mail sent to WHAB_TXDOT@tpwd.texas.gov.

1. Does the project impact any state parks, wildlife management areas, wildlife refuges, or other designated protected areas?

   ☒ No

   ☐ Yes

2. Does TxDOT need TPWD assistance in identifying and locating Section 404 mitigation opportunities for this project?

   ☒ No / N/A / Not yet determined

   ☐ Yes

3. Is there a species or resource challenge that TPWD can assist with additional guidance? If so, describe below:

   No additional guidance requested.

4. List all BMP that will be applied to this project per the document *Beneficial Management Practices: Avoiding, Minimizing, and Mitigating Impacts of Transportation Projects on State Natural Resources*.

   ***Note, these are BMP that TxDOT commits to implement at the time this form is completed. This list may change prior to or during construction based on changes to project impacts, design, etc.**

BMP to be Implemented:

General Design and Construction BMPs

- Employees and contractors will be provided information prior to start of construction to educate personnel of the potential for SGCN to occur within the project area and should be advised of relevant rules and regulations to protect plants, fish, and wildlife.
- Contractors will be informed to avoid harming all wildlife species if encountered and allow them to safely leave the project site. Due diligence should be used to avoid killing or harming any wildlife species in the implementation of transportation projects.
- Direct animals away from the construction area with the judicious use and placement of sediment control fencing to exclude wildlife. Exclusion fence should be buried at least 6 inches and be at least 24 inches high, maintained for the life of the project, and removed after construction is completed. Contractors should examine the inside of the exclusion area daily to determine if any wildlife species have been trapped inside the area of impact and provide safe egress opportunities prior to initiation of construction activities.
- If erosion control blankets or mats will be used, the product should not contain netting, but should only contain loosely woven natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic netting should be avoided.
- Project staging areas, stockpiles, temporary construction easements, and other project related sites should be situated in previously disturbed areas to avoid or minimize impacts to sensitive or unique habitats including intact native vegetation, floodplains, riparian corridors, wetlands, playa lakes, and habitat for wildlife species.
- When lighting is added, consider wildlife impacts from light pollution and incorporating dark-sky practices into design strategies. Minimize sky glow by focusing light downward, with full cutoff luminaries to avoid light emitting above the horizontal. The minimum amount of night-time lighting needed for safety and security should be used.

Bat BMPs

- Inform TPWD WHAB during initial collaborative review phase for projects that may impact the following bat species:
    - Any Myotis spp.
- If identification of a bat species is in question, consult with TPWD or a qualified TxDOT biologist during initial collaborative review phase.
- For activities that have the potential to impact structures, cliffs or caves, or trees; a qualified biologist will perform a habitat assessment and occupancy survey of the feature(s) with roost potential as early in the planning process as possible or within one year before project letting.
- For roosts where occupancy is strongly suspected but unconfirmed during the initial survey, revisit feature(s) at most four weeks prior to scheduled disturbance to confirm absence of bats.
- If bats are present or recent signs of occupation (i.e., piles of guano, distinct musky odor, or staining and rub marks at potential entry points) are observed, take appropriate measures to ensure that bats are not harmed, such as implementing non-lethal exclusion activities or timing or phasing of construction.
- Exclusion devices can be installed by a qualified individual between September 1 and March 31. Exclusion devices should be used for a minimum of seven days when minimum nighttime

temperatures are above 50°F AND minimum daytime temperatures are above 70°F. Prior to exclusion, ensure that alternate roosting habitat is available in the immediate area. If no suitable roosting habitat is available, installation of alternate roosts is recommended to replace the loss of an occupied roost. If alternate roost sites are not provided, bats may seek shelter in other inappropriate sites, such as buildings, in the surrounding area.

- If feature(s) used by bats are removed as a result of construction, replacement structures should incorporate bat-friendly design or artificial roosts should be constructed to replace these features.
- In all instances, avoid harm or death to bats. Bats should only be handled as a last resort and after communication with TPWD.
- Coordinate with TPWD about the latest bat handling restrictions and protocols involving COVID19 and bat handling. In general, all staff must follow the guidelines listed below:
    - Do not handle bats if not part of a critical or time-sensitive research project. Contact TPWD to discuss your project needs before beginning work.
    - All participants must follow CDC social-distancing guidelines.
    - Wear a face mask to minimize the exchange of respiratory droplets such as a surgical mask, dust mask, or cloth mask when within 6 feet of a living bat.
    - Use disposable exam gloves or other reusable gloves (e.g., rubber dish-washing gloves) that can be decontaminated to prevent spread of pathogens. Do not touch your face or other potentially contaminated surfaces with your gloves prior to handling bats.
    - Limit handling to as few handlers as possible.
    - Do not blow on bats for any reason.
    - Use separate temporary holding containers for each bat such as disposable paper bags.
    - Implement additional disinfection, quarantine, and cleaning procedures.
- Bat surveys of structures should include visual inspections of structural fissures (cracked or spalled concrete, damaged or split beams, split or damaged timber railings), crevices (expansion joints, space between parallel beams, spaces above supports piers), and alternative structures (drainage pipes, bolt cavities, open sections between support beams, swallow nests) for the presence of bats.
- Before excluding bats from any occupied structure, bat species, weather, temperature, season, and geographic location must be incorporated into any exclusion plans to avoid unnecessary harm or death to bats. Winter exclusion must entail a survey to confirm either, 1) bats are absent or 2) present but active (i.e., continuously active – not intermittently active due to arousals from hibernation).
    - Avoid using materials that degrade quickly, like paper, steel wool or rags, to close holes.
    - Avoid using products or making structural modifications that may block natural ventilation, like hanging plastic sheeting over an active roost entrance, thereby altering roost microclimate.
    - Avoid using chemical and ultrasonic repellents.
    - Avoid use of silicone, polyurethane or similar non-water-based caulk products.
    - Avoid use of expandable foam products at occupied sites.

- Avoid the use of flexible netting attached with duct tape.

- In order to avoid entombing bats, exclusion activities should be only implemented by a qualified individual. A qualified individual or company should possess at least the following minimum qualifications:
  - Experience in bat exclusion (the individual, not just the company).
  - Proof of rabies pre-exposure vaccinations.
  - Demonstrated knowledge of the relevant bat species, including maternity season date range and habitat requirements.
  - Demonstrated knowledge of rabies and histoplasmosis in relation to bat roosts.
- Contact TPWD for additional resources and information to assist in executing successful bat exclusions that will avoid unnecessary harm or death in bats.

5. List all TxDOT species protection specifications that will be applied to this project (e.g., Amphibian and Reptile Exclusion Fence, Bat Houses, etc.)

Species protection specifications to be Implemented:

N/A

Appendix G
Section 4(f) Documentation

Checklist for Section 4(f) *De Minimis* for Public Parks, Recreation Lands, Wildlife & Waterfowl Refuges, and Historic Properties

Main CSJ: 0915-12-617
District(s): San Antonio
County(ies): Bexar
Property ID: Resource 45 (2915 S. Zarzamora Street)
Property Name: K.O. Steel Castings property

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.

The following checklist was developed as a tool to assist in streamlining the Section 4(f) *De Minimis* process and to ensure that all necessary information is documented in the File of Record (ECOS).

What Type of Property is Being Evaluated?

- ☐ A park, recreation land, or wildlife/waterfowl refuge
- ☒ A historic property

Section 4(f) Defining Criteria for Historic Properties

1. Yes — Is the property listed or eligible for the NRHP or NHL?

Establishing Section 4(f) Use of the Property

1. Yes — Does the project require a use (i.e., new right of way, new easement(s), etc.)?

Establishing Section 4(f) *De Minimis* Eligibility

1. Yes — Was it determined that the project will not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection?

2. Yes — Did the Official with Jurisdiction concur that the project will not adversely affect the features or attributes that make the property eligible for Section 4(f) protection?

Section 4(f) Use:

The project proposes a temporary construction easement from Resource 45 (approx 0.003 acres) and will likely affect two non-historic-age components of the property, which TxDOT determined constitutes a de minimis use. None of the contributing resources are within the proposed easement. TxDOT determined the project would have no adverse effect on Resource 45, the historic K.O. Steel Castings property.

Documentation

The following **MUST** be attached to this checklist to ensure proper documentation of the Section 4(f) *De Minimis*:

- ☑ A detailed map of the Section 4(f) Property including current and proposed ROW; property boundaries; access points for pedestrians and vehicles and existing and planned facilities.
- ☑ Street level photograph of the property
- ☑ Concurrence letter from Official with Jurisdiction
- ☑ Copy of WPD I Screen from ECOS.

Exhibits for Section 4(f) De Minimis Checklist CSJ 0915-12-617 July 2023

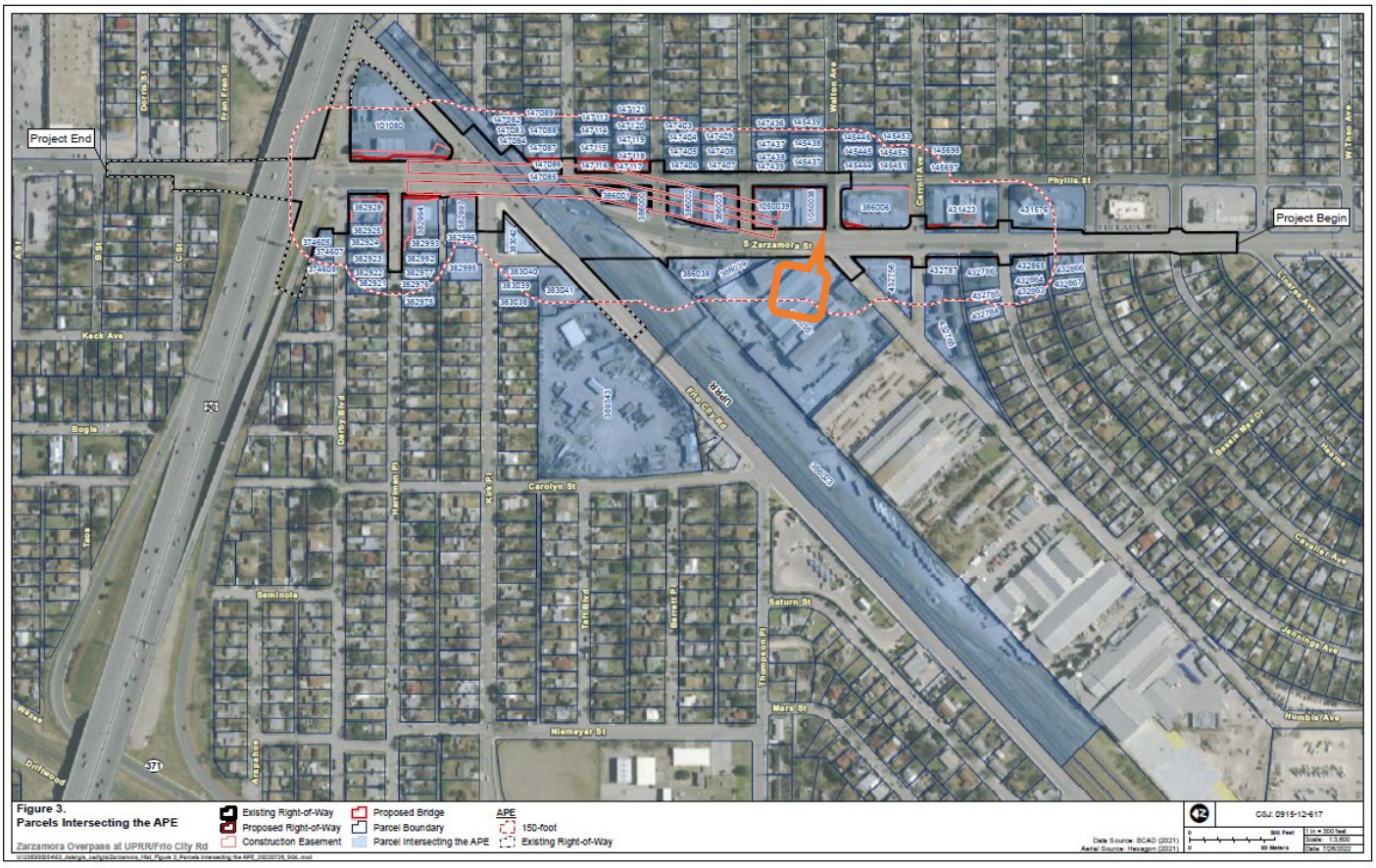
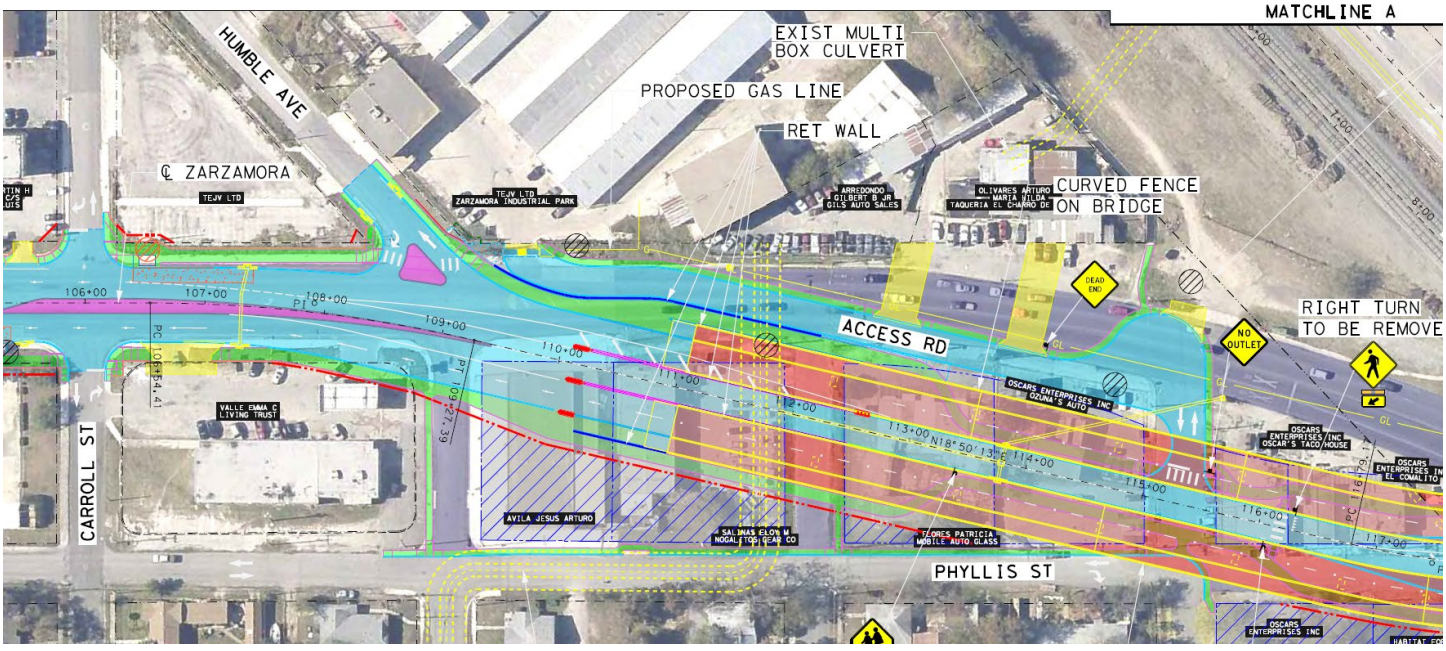


Figure 3 from the Historic Resources Survey Report shows the project area and parcels clipped by the Area of Potential Effect (north is to the left). The parcel number for Resource 45 is circled in orange, with a pointer to the corner where the construction easement is proposed.



Above is a snip from the plans (north is to the right). Resource 45 (former K.O. Steel Castings property is labeled as TEJV LTD Zarzamora Industrial Park), just north of the pink-shaded median in the intersection with Humble Ave. There is no new ROW from the property, just a temporary construction easement.

The construction easement proposed at the Resource 45 (former K.O. Steel Castings property) is at the corner where the utility pole is in the above image from Google StreetView. No historic-age features will be affected by the easement, and the access to the property will be maintained throughout the project for the current occupants.

Below is a view of the same property, with the main building in the foreground on the left. The construction easement will be at the corner with the utility pole at the far end of the sidewalk (approximate middle of the image). See image on page 7 of 10 in the SHPO letter on the subsequent pages for a plan view of the property and proposed easement. A map of the project location is on page 5 of the same letter.

Texas Department of Transportation

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

5 May 2023

SECTION 106 REVIEW: DETERMINATION OF NO ADVERSE EFFECT
SECTION 4(f) REVIEW: NOTIFICATION OF INTENT TO RENDER *DE MINIMIS* SECTION 4(f) FINDING

District: San Antonio
County: Bexar
CSJ#: 0915-12-617
Highway: Zarzamora
Project Limits: From US 90 to Jennings Avenue
Section 4(f) Property: (former) K.O. Steel Castings, Inc.

Mr. Justin Kockritz
History Programs
Texas Historical Commission
Austin, Texas 78711

Dear Mr. Kockritz:

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. As a consequence of these agreements, TxDOT's regulatory role for this project is that of the Federal action agency. In accordance with 36 CFR 800 and our 2015 Section 106 Programmatic Agreement for Transportation Undertakings (PA), this letter initiates Section 106 consultation on the project.

Project Description

See the attachment from TxDOT's Environmental Compliance Oversight System (ECOS) that describes the project, setting, and amount of right-of-way (ROW) and easements necessary for the project.

Determinations of Eligibility

Using the Texas Historical Commission's (THC) Historic Sites Atlas and TxDOT's Historic Resources Aggregator and ECOS project files, TxDOT historians reviewed the National Register of Historic Places (NRHP), the list of State Antiquities Landmarks (SAL), the list of Recorded Texas Historic Landmarks (RTHL), and other TxDOT files to identify historically significant resources previously documented within the Area of Potential Effect (APE).

Per our PA, TxDOT historians established the project's APE as 150 feet from the outer edge of proposed ROW and easements and on both sides of the roadway. In addition, TxDOT used a 1,300-foot study area from the edge of the APE to develop the context for understanding any properties within the APE.

Based on the construction let date, TxDOT surveyed properties within the APE built in or prior to 1979. The associated November 2022 Historic Resources Survey Report (HRSR) documented resources that met that requirement. The HRSR includes a total of 96 historic-age resources evaluated for NRHP eligibility as well as 49 non-historic-age resources that were photographed and included in the inventories but not evaluated. The HRSR also includes evaluation of the properties for possible inclusion in historic commercial or residential districts.

Based on the HRSR, TxDOT determined that one property within the APE is **eligible** for NRHP listing:

- **Resource 45**—2915 S Zarzamora St.—the former K.O. Steel Castings property—TxDOT determined this property **eligible** under Criterion A for Industry, at the local level of significance, with contributing resources 45A–D and 45F–I (see HRSR pp. 18 and 19 for discussion, as well as survey forms on pp. 142 through 158).

TxDOT determined that the other surveyed properties within the APE are **not eligible** for NRHP listing. Of note, this includes six historic-age properties that will be displaced by or otherwise be directly affected by the project:

- **Resource 28A**—2702 S. Zarzamora St.—Although recognizable as a c. 1950 drive-in restaurant, the property does not demonstrate sufficient significance or integrity for NHRP inclusion (see HRSR pp. 23 through 25 for discussion, as well as survey forms on pp. 91 through 96). TxDOT determined the property is **not eligible** for listing in the NRHP.
- **Resource 29A—**705 Barrett Pl.—Oscar's Taco House—A popular local restaurant, the property has gone through a number of alterations and has low integrity to its historic period (see HRSR p. 26 through 29 for discussion, as well as survey forms on pp. 97 through 101). TxDOT determined the property is **not eligible** for listing in the NRHP.
- **Resource 30A—**663 Barrett Pl.—This c. 1930 residence with minimal Craftsman detailing has diminished integrity due to alterations (see HRSR p. 31 for discussion and survey forms on pp. 102 and 103). TxDOT determined it not individually significant or part of an eligible historic district and is **not eligible** for listing in the NRHP.
- **Resource 36A—**2802 S. Zarzamora St.—This c. 1935 former Texaco station does not rise to the level of significance for NRHP eligibility under Criterion A for its history related to local transportation or community development (see HRSR discussion on p. 31 and survey forms on pp 117–119). It was not an early or notable area service station, has undergone changes in ownership and use over time, and is not part of an NRHP-eligible historic district. Changes to material and alterations to the building's fenestration and office entry fall under the Tier 2 (Moderate) integrity issues outlined in TxDOT's *A Field Guide to Gas Stations in Texas*, diminishing its ability to convey Criterion C significance for Architecture. TxDOT determined the property is **not eligible** for listing in the NRHP.
- **Resource 50—**2914 S. Zarzamora St.—This c. 1950 former garage for Southwestern Bell Telephone was converted to a warehouse space at an unknown date (see HRSR pp. 31–32 for discussion and survey forms on pp. 168–170). Windows are boarded up or possibly missing or filled in, but the building shows no distinguishing design

characteristics and has no demonstrable historical significance. TxDOT determined the property is **not eligible** for listing in the NRHP.

- **Resource 57A**—3002 S. Zarzamora St.—The property, dating to c. 1970, is a typical commercial strip center with a gas station and various businesses set back from the road by a parking lot (see HRSR p. 29 for discussion and survey forms on pp. 183–185). The property does not demonstrate historical significance and has the typical changes associated with such developments, including signage and individual shopfront treatments based on business types. TxDOT determined the property is **not eligible** for listing in the NRHP.

The HRSR documents and evaluates these and the other surveyed properties, with the recommendation that only Resource 45 has sufficient significance and integrity for NRHP eligibility as individual properties or within potential districts.

Determinations of Effect

The project proposes a temporary construction easement from Resource 45 for approximately 0.003 acres. None of the contributing resources are within the footprint of the proposed easement, although two non-historic-age components of the property may be affected—a chain link fence and a sign. Based on this easement being minimal and temporary, and because the project will not otherwise affect any of the characteristics that enable the property to convey its historic significance. TxDOT determined the project would have **no adverse effect** on Resource 45, the historic K.O. Steel Castings property. The main entrance to the property will remain operational and accessible to trucks when the project is complete, and the secondary entrance is not within the project limits and not anticipated to need modifications due to the project.

Consulting Parties

In addition to consulting with your office, TxDOT historians provided an electronic copy of the HRSR to the City of San Antonio's Office of Historic Preservation (OHP) and the Bexar County Historical Commission (CHC) on March 22 and offered the opportunity for a consultation meeting. TxDOT met with OHP staff on March 29 and went through the HRSR findings, focused especially on the properties that will be displaced by the project. TxDOT then sent information to the Bexar CHC with notes from the OHP meeting and to make sure they were able to access the HRSR. To date, OHP and the CHC have not sent formal responses on the project, but any that TxDOT receives will be forwarded to you. In addition to the Section 106 consultation, the City of San Antonio held a public meeting on the project as a whole, prior to the historic resources survey, and comments received related to historic properties are summarized on pages eight through ten of the report and are also documented in the Public Involvement records in ECOS.

Determination of *De Minimis* Finding

As part of this coordination, TxDOT determined that the proposed project meets the requirements for a Section 4(f) *de minimis* impact finding under 23 CFR 774. TxDOT based its determination on the fact that the temporary easement on the historic K.O. Steel Castings property amounts to no effects to contributing resources, effects to less than 0.1% of the property's overall acreage, and **no adverse effect** to the NRHP-eligible property.

Conclusion

In accordance with 36 CFR 800 and our Section 106 Programmatic Agreement for Transportation Undertakings, I hereby request your signed concurrence with TxDOT's finding of **no adverse effect** to the NRHP-eligible K.O. Steel Castings property (Resource 45). We additionally notify you that SHPO is the designated official with jurisdiction over Section 4(f) resources protected under the provisions of 23 CFR 774 and that your comments on our Section 106 findings will be integrated into decision-making regarding prudent and feasible alternatives for purposes of Section 4(f) evaluations. Final determinations for the Section 4(f) process will be rendered by TxDOT pursuant to 23 U.S.C. 327 and the afore-mentioned MOU dated December 9, 2019.

We look forward to further consultation with your staff and hope to maintain a partnership that will foster effective and responsible solutions for improving transportation, safety, and mobility in the state of Texas. Thank you for your cooperation in this federal review process. If you have any questions or comments concerning these evaluations, please contact me at 512/871-9747 or linda.henderson@txdot.gov.

Sincerely,

DocuSigned by:
BCD2B2E1F7EF495...
Linda Henderson

thru: Renee Benn, HIST Project Lead: DS _____

CONCURRENCE WITH NON-ARCHEOLOGICAL SECTION 106 FINDINGS:

HISTORIC PROPERTY PRESENT: NRHP-ELIGIBLE K.O. STEEL CASTINGS

NO ADVERSE EFFECT: K.O. STEEL CASTINGS

NAME: _____ Digitally signed by Justin Kockritz Date: 2023.05.23 16:59:58 -05'00' DATE:_____

for Mark Wolfe, State Historic Preservation Officer

NO COMMENTS ON DETERMINATION OF DE MINIMIS IMPACT UNDER SECTION 4(F) REGULATIONS

NAME: _____ Digitally signed by Justin Kockritz Date: 2023.05.23 17:00:10 -05'00' DATE:_____

for Mark Wolfe, State Historic Preservation Officer

Back To List

- WPD Section I - Project Definition
- WPD Section II - Tool
- WPD Section III - Project Work Plan
- WPD Section IV - Findings

Print this Page

Project Definition

Project Name: Zarzamora (0915-12-617)

CSJ: 0915 - 12 - 617

Anticipated Environmental Classification: EA

No — Is this an FHWA project that normally requires an EIS per 23 CFR 771.115(a)?

Project Association(s)

Auto Associate CSJ from DCIS

Manually Associate CSJ:

CSJ	DCIS Funding	DCIS Number	Env Classification	DCIS Classification	Main or Associate	Doc Tracked In	Actions

There are currently no Project Associations added to this project.

DCIS Project Funding and Location

Funding

DCIS Funding Type:

☑ Federal ☐ State ☑ Local ☐ Private

Location

DCIS Project Number: STP ( )MM

Highway: CS

District: SAN ANTONIO

County: BEXAR

Project Limit -- From: IN SAN ANTONIO, ON ZARZAMORA

Project Limit -- To: US-90 TO JENNINGS AVE.

Begin Latitude: + 29 . 3988752

Begin Longitude: - 98 . 5308200

End Latitude: + 29 . 3920919

End Longitude: - 98 . 5324284

DCIS & P6 Letting Dates

DCIS District: 11/26

DCIS Approved:

DCIS Actual:

P6 Ready To Let:

P6 Proposed Letting:

DCIS Project Description

Type of Work: Spell

Layman's Description:

CONSTRUCT BRIDGE

DCIS Project Classification: INC - INTERCHANGE

Design Standard:

Roadway Functional Classification: 3 - Rural principal arterial

Jurisdiction

No — Does the project cross a state boundary, or require a new Presidential Permit or modification of an existing Presidential Permit?

Who is the lead agency responsible for the approval of the entire project?

☑ FHWA - Assigned to TxDOT ☐ TxDOT - No Federal Funding ☐ FHWA - Not Assigned to TxDOT

Local Government — Who is the project sponsor as defined by 43 TAC 2.7?

Yes — Is a local government's or a private developer's own staff or consultant preparing the CE documentation, EA or EIS?

Yes — Does the project require any federal permit, license, or approval?

☐ USACE ☐ IBWC ☐ USCG ☐ NPS ☐ IAJR ☑ Other Federal Railroad Administration

No — Does the project occur, in part or in total, on federal or tribal lands?

Environmental Clearance Project Description

Project Area

Typical Depth of Impacts: 4 (Feet) Maximum Depth of Impacts: 65 (Feet)

New ROW Required: 2.6 (Acres)

New Perm. Easement Required: 0 (Acres) New Temp. Easement Required: 1.2 (Acres)

Project Description

Describe Limits of All Activities: Spell

The proposed project would extend for a total of 0.8 mile along S. Zarzamora St., from approximately 50 ft north of Linares St. to B Street. The proposed project would realign S. Zarzamora St. and would require the acquisition of right of way (ROW), primarily from the east side of the roadway, resulting in a new ROW width ranging from approximately 100 to 300 feet. The existing ROW width is approximately 100 feet.

Realignment of S. Zarzamora St. would require the permanent closure of several local roadways, including Walton Ave., E. Thompson Pl., and Barrett Place. These local roadways would be permanently closed from S. Zarzamora St. to Phyllis Street.

Work on Frio City Rd. would extend from approximately 320 ft west of S. Zarzamora St. to approximately 180 feet east of S. Zarzamora Street. Work on Harriman Pl. would extend west of S. Zarzamora St. for approximately 300 feet. Work on Darby Blvd. would extend from approximately 185 ft west of S. Zarzamora St. to Frio City Road. Work on the US 90 eastbound frontage road would extend west of S. Zarzamora St. for approximately 395 feet. Tie-in work at the remaining cross-streets would extend for less than 200 ft at each of the remaining intersections.

Describe Project Setting: Spell

The project area is located in an urban area within the City of San Antonio, in central Bexar County. Substantial traffic generators in the vicinity of the project area include Port San Antonio, Lackland Air Force Base (Kelly Field Annex), several schools (e.g., Storm Elementary, Lowell Middle School, George E. Kelly Elementary, Charles Graebner Elementary, etc.), several parks and greenways (e.g., Apache Creek Greenway, Alazan Creek Park, Kennedy Park, etc.), and several residential neighborhoods (e.g., Palm Heights, Thompson, Quintana, Collins Garden, etc.).

Within and adjacent to the project area, land use is mixed-use with adjacent commercial, industrial, and single-family residential properties. Adjacent properties include multiple gas stations, restaurants, auto repair shops, and commercial strip centers, as well as single-family residences. A Union Pacific Railroad (UPRR) line, running parallel to Frio City Rd., crosses the project limits.

There are several historic-age structures within and adjacent to the project area, including structures at seven properties that are proposed to be displaced under the project.

The project is located within the San Antonio River watershed; however, there are no surface waters within or adjacent to the proposed project. The project is not located within the Edwards Aquifer Recharge or Contributing Zones.

Vegetation within and adjacent to the project area primarily consists of urban, maintained vegetation.

There are two adjacent leaking petroleum storage tank (LPST) sites to the project area – the former On the Go Food Mart located at 3402 S. Zarzamora Street and the CPS Tire Shop (former Lou Conoco) located at 2320 S. Zarzamora Street. There are four petroleum storage tank (PST) sites adjacent to the project limits, including (1) Haifa Market (3002 S. Zarzamora St.), (2) 7 Eleven (2618 S. Zarzamora St.), (3) former On the Go Food Mart (3402 S. Zarzamora St.), and Circle K (3210 S. Zarzamora St); ROW acquisition is proposed from the Haifa Market and 7 Eleven properties. One water well is located within an area of proposed ROW at the Nogalitos Gear Transmission Service property (2910 S. Zarzamora St.).

Describe Existing Facility: Spell

Within the project limits, S. Zarzamora St. is a five-lane, non-controlled access, at-grade, principal arterial roadway within an existing ROW width of approximately 100 feet. The existing typical section consists of two 11-foot travel lanes in each direction, a 12-foot center left-turn lane, 4-ft bike lanes in each direction, and 6-foot sidewalks in each direction.

Drainage is accommodated within the project limits via a curb-and-gutter system.

There are no existing permanent easements within the project limits.

Describe Proposed Facility: Spell

The proposed project would realign S. Zarzamora St. within the project limits to construct a grade separation over the Frio City Rd./UPPR intersection. The project would require the acquisition of ROW, including the partial acquisition of nine parcels, complete acquisition of nine parcels, and temporary construction easements at nine parcels. Approximately six commercial and two residential displacements are proposed, including displacement of Nogalitos Gear Transmission Service, San Antonio Auto Glass, Ozuna's Automotive, Oscar's Taco House, El Comalito, a vacant commercial warehouse, and two single-family residences.

From Jennings Ave. to Humble Ave./Walton Ave., the proposed project would remove the existing center left-turn lane, add a southbound left-turn lane, and replace the existing bike lane and sidewalk on the east side of the roadway with a shared-used path. In this section, S. Zarzamora St. would typically consist of two at grade 10- to 11-ft travel lanes in each direction, a 0- to 13-ft southbound left-turn lane, a 5-ft bike lane and 6-ft sidewalk on the west side of the roadway, and a 10-ft shared-use path on the east side of the roadway. A traffic signal would be added at Jennings Ave., which is currently an unsignalized intersection.

From Humble Ave./Walton Ave. to Harriman Pl., northbound and southbound overpasses would be constructed to provide grade separation over the UPRR crossing. The overpasses would consist of two bridges (northbound and southbound bridges), each with two 12-ft travel lanes and a 10-ft shared-use path. In this section, S. Zarzamora St. would be realigned, which would result in the

No Would the project add capacity?

Transportation Planning

Yes Is the project within an MPO's boundaries?

No Does the project meet the definition for a grouped category for planning and programming purposes?

The project is located in Non-Attainment/Maintenance area.

This status applies to:

- ☐ CO - Carbon Monoxide
- ☑ O3 - Ozone
- ☐ NO2 - Nitrogen Dioxide
- ☐ PM10 - Particulate
- ☐ PM2.5 - Particulate

Environmental Clearance Information

Environmental Clearance Date:

Environmental LOA Date:

Closed Date:

Archived Date:

Approved Environmental Classification:

Project Contacts

Created By: Barrlynn West Jr

Date Created: 01/20/2021

Project Sponsor: ○ TXDOT (Or) ◉ Local Government

Sponsor Point Of Contact:

ENV Core Team Member: Lindsey Kimmitt - Environmental Specialist

District Core Team Member: Barrlynn West Jr - Environmental Specialist

Other Point of Contact(s): Spell

Last Updated By: System Admin

Last Updated Date: 02/03/2023 07:12:24

Appendix H
Comment and Response Matrix from the Notice of Availability of Draft EA/Opportunity for Public Hearing

PLACEHOLDER – this appendix will be provided following the opportunity for public hearing.